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The Relationship Between Optimism and Perceived Health in Generation-Z An Explanatory Investigation

Natalie D. Woodward
Georgia Southern University

The Relationship Between Optimism and Perceived Health in Generation-Z
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An Honors Thesis submitted in partial fulfillment of the requirements for Honors in Waters College of Health Professions

By
Natalie Woodward

Under the Mentorship of Dr. Daniel Czech

ABSTRACT

Research has found possible links between optimism, happiness, and perceived health in past generations (Peterson & Bazio, 1991). Little research has been found examining these variables within Generation Z. Thus, the purpose of this study is to examine the relationship between optimism, happiness, and perceived health in Generation Z. A secondary purpose of this study is to examine the relationship between optimism, happiness and perceived health between genders and races. A third purpose of this study is to predict happiness by examining optimism, perceived health, and sleep within Generation Z. 2287 Generation Z participants took the Life Orientation Test, the Subjective Happiness Test and a self-report questionnaire. Results were examined and researchers found a significant negative correlation between health and happiness, a significant positive correlation between health and optimism, and a significant negative correlation between happiness and optimism. Research also found a statistically significant difference between males and females for overall health, happiness, and optimism. There was also a significant difference in perceived health in African Americans and Caucasians. The results of the regression indicate the three predictors, optimism, happiness, and perceived health, explain 28.7% of the variance in happiness. Result implications and future research will be discussed.

KEY WORDS: Optimism, Generation Z, Health, Happiness

Thesis Mentor:_____

Dr. Daniel Czech

Honors Director:_____

Dr. Steven Engel

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INTRODUCTION

Optimism, defined broadly, is the hopefulness and confidence about the future and success of an event. Optimism can be broken down into several types, however, dispositional optimism is discussed most when it comes to health behaviors. Dispositional optimism is defined by Scheier and Carver as "the relatively stable, generalized expectation that positive outcomes will occur across important life domains" (Carver & Scheier, 2018). Both definitions help explain the optimism bias: people are more likely to assume the likelihood of positive future events rather than negative events (Sharot, 2011). Many studies have found these three items: general optimism, dispositional optimism, and the optimism bias to be related to higher levels of physical health. The studies used the Life Orientation Test or Revised Life Orientation Test to measure optimism and various self-reports and questionnaires to measure physical health.

Better physical well-being and physical health were found to be related to optimism and lower levels of pessimism. Physical well-being was measure by regular engagement in physical activity, moderate consumption of alcohol and avoiding smoking. Conversano, et al, found that "regardless of demographic factors, current psycho-physical conditions and body mass," higher levels of optimism were associated with higher levels of physical well-being (2010). More specific than general physical well-being, many studies found that optimism was a predictor of higher levels of physical activity. Carvajal found that optimism is only a predictor when the intervals of physical activity were long, but others found that optimism was a predictor for physical activity for high levels of activity and moderate levels of activity (Carvajal, 2012) (Mohammmad,2015). One particular study, focusing on women and physical exercise adherence, found that

optimistic women were 15% more likely to adhere to vigorous physical activity three or more times a week. The same study also found that physical activity did drop after age 50, but optimistic women were still more likely to engage in exercise or physical activity than their pessimistic peers. (Progovac et al, 2017).

Additionally, optimism can also be linked to higher levels of cardiovascular health and fitness. A study done comparing dispositional optimism and pessimism on the effects of cardiovascular health found that the lack of a negative outlook was ideal for cardiovascular health. They found that less pessimistic people were less likely to smoke and more likely to engage in physical activity, both being factors in cardiovascular health and fitness (Serlachiusa et al, 2015). A second study, comparing muscular strength and cardiovascular fitness, found that both were positively associated with psychological well-being. Specifically, "cardiorespiratory fitness may positively influence optimism," (Rodreguez-Ayllon et al, 2018). Both of these studies help explain why individuals who have higher levels of dispositional optimism are 50% less likely to suffer from a cardiovascular death than their pessimistic peers (Conversano et al, 2010). If optimism is linked to less smoking, and more engagement in physical activity, then optimism is sequentially linked to better cardiovascular health and fitness.

Why is optimism associated with physical activity and exercise adherence? Many analyses found that it is because optimism facilitates health-promoting actions. Doctors found that optimistic patients are more likely to eat healthy and engage in exercise as a form of disease prevention or recovery (Sharot, 2011). This could be because of several reasons. The first being that optimists are typically more proactive than pessimists, which translates to their health behaviors by exercising and having healthier diets. The second

being that optimists are more inclined to be morally correct and they consider developing healthy habits, such as engagement in physical activity, as "doing the right things and avoiding the wrong things," (Carver & Sheier, 2014).

Aside from morale and disease prevention, there are several other reasons why optimistic individuals are more likely to have better physical health than their pessimistic peers. Optimism is an important factor in self-regulation (Rodriguez-Ayllon et al, 2018). An individual who regularly participates in physical activity typically is better at self-regulation, meaning that individual is more than likely an optimist. It is also believed that optimists are more likely to engage in physical activity because they consider it an achievement, whether that be performance attainment, living a socially desirable lifestyle, or competing against others. Physical activity provides an opportunity to master an experience or achieve a goal, promoting self-efficacy, "the belief that one is capable of accomplishing specific tasks, which in turn increases optimism," (Pavey et al, 2015). Goal-achievement increases optimism, but optimism can also influence it. There are usually obstacles that get in the way of individuals achieving their goals. In the face of adversity, pessimists are more likely to give up on their goals instead of persisting, whereas optimists are more likely to continue pursuing their goals (Carver and Sheier, 2018). Mentioned earlier, physical activity and exercise can be a form of goal-achievement, meaning that individuals who set and pursue goals are already more optimistic than those who do not, and then achieving said goals will increase their optimism as well. Not only does physical activity provide a platform for goal-achievement and self-efficacy, but it also provides opportunities for socializing and engaging with the environment through opportunities like group fitness classes, sports,

and hiking. Both socializing and being outdoors are associated with higher levels of optimism (Pavey et al, 2015). Optimism has such a positive effect on physical health that optimism "should be integrated in treatments and prevention programs… to improve well-being," (Conversano et al, 2010).

Another construct similar to optimism, is subjective happiness. Research has defined subjective happiness as a self-reported measure of overall well-being (Subjective Happiness Scale, n.d.). In addition, happiness and health have been found to be associated with health behaviors such as eating fruits and vegetables, avoiding usage of tobacco products and regular physical activity (Peltzer & Pengpid, 2013).

Generation Z is the current College Student Generation. A dearth of research has been found examining this Generation's health and optimism levels. The research problem being investigated involves examining the relationship between Generation Z's perceived health and dispositional optimism levels.

This research is important because college campuses and universities are home to many students with low mental health. Low mental health is associated with lower levels of happiness and optimism, which could be linked to lower overall health. If the two are connected, then students could improve their happiness, optimism, and mental health by improving their perceived health. Establishing healthy habits at a pivotal point in life, such as college, is likely to lead to better adherence to said habits in the future.

The Health Belief Model (Rosenstcok, 1966), suggests that "feelings of vulnerability, coupled with beliefs about the efficacy of a particular health behavior for reducing vulnerability, were among the key variables needed to motivate people in behavior change," (Taylor and Sherman, 306). This theory states that a person's perceived

vulnerability towards their health habits, combined with their perceived ability to act on their health habits, can predict the actions that person will take on their health.

Thus, the purpose of this study is to examine the relationship between Generation Z's perceived health, happiness and dispositional optimism levels. More specifically, what is the relationship between Generation Z's perceived health and happiness? What is the relationship between Generation Z's perceived health and optimism? What is the relationship between Generation Z's optimism and happiness levels? A secondary purpose is to examine the differences between gender and race on optimism, happiness and perceived health levels. More specifically, are there significant differences between gender and race on optimism, happiness and perceived health? The last purpose is to predict Generation Z's subjective happiness by examining the relationship with optimism, health and sleep. More specifically, what are the strongest predictors to Generation Z's subjective happiness levels?

METHODS

Participants and Procedures

This study included 986 male participants and 1285 female participants. All 2287 participants were college-aged students, enrolled in a required physical activity class who attended a midsized southeastern university. Although the age of participants varied from 18 to 22 years old, the emphasis of the study was focused on the student school classification: freshman, sophomore, junior, or senior. 961 freshmen, 579 sophomores, 417 juniors, 324 seniors, and 6 graduate students participated in this study. 614 black students, 1445 white students, 57 Hispanic students, 39 Asian students, 70 bi-racial

students, and 48 students who self-identified as other participated in this study. The study used required physical activity classes that the aforementioned students were participating in. These classes ranged from aerobics to weight training activities. During the last two weeks of the semester, a voluntary survey was completed, but in order to increase participation, instructors verbally recruited students with an incentive of a bonus grade. It was required of all participants to read the informed consent and therefore gave passive consent by completing the survey.

Measures

The study is designed to be a quantitative, quasi-experimental, cross-sectional descriptive study. A research questionnaire was given to students that contained demographic questions as well as the Life Orientation Test, both of which have been found to be psychometrically valid and reliable. The questionnaire included gender, age, race, school classification, physical activity class, and satisfaction with the course. In addition, the Optimism 9 Life Orientation Test measured levels of optimism and pessimism. The first portion of the study allowed students to respond with their levels of course satisfaction and rating of the instructor. The second portion measured optimism and pessimism levels with a variety of questions that had positive and negative connotations. Statistical Analysis Correlations, T-tests and ANOVAs determined if significant differences and relationships existed between groups in the demographic independent variables and Pearson's correlation was used to examine the determined relationships. SPSS was used to conduct data analysis. Descriptive statistics included the means and standard deviation and as a function of race and gender.

RESULTS

Table 1. Participant's age, BMI, gender, race, and classification.

Participants, n=1562		
Characteristic	**Mean**	**SD**
Age	19.95	3.35
Characteristic	**Category**	**%**
Body Mass Index (BMI)	Healthy	63.20
	Overweight	20.30
	Obese	11.60
Gender	Male	43.00
	Female	57.00
Race	White	63.10
	Black	26.60
	Other	10.30
School Classification	Freshman	41.80
	Sophomore	25.30
	Junior	17.80
	Senior	15.10

Correlational Analysis

Pearson's *r* correlations were used to examine the relationship between outcome variables. There was a significant, negative correlation between overall health and happiness (r = -.17), and a significant, positive correlation between overall health and optimism (r = .15). There was also a significant, strong, negative correlation between happiness and optimism (r = -.52). Weekday sleep was significantly correlated with overall health (r = -.11), total happiness (r = .08), and optimism (r = -.06). Weekend sleep was also significantly correlated with happiness (r = -.07) and optimism (r = .07).

Group Differences in Outcome Variables

Separate one-way ANOVAs were used to examine group differences in optimism, happiness, and overall health. There was a statistically significant difference between males and females for overall health, F (1, 1,562) = 99.83, p = .001. Females reported significantly greater overall health (*M* = 2.80, *SD* = .83) than males (*M* = 2.44, *SD* = .84). Furthermore, there was a statistically significant difference between males and females for total happiness *F* (1, 1,562) = 4.91, *p* = .03. Females reported statistically significantly greater happiness (*M* = 22.71, *SD* = 4.12) when compared to males (*M* = 22.29, *SD* = 4.21). There was not a statistically significant difference between genders for optimism (*p* = .36) or sleep (*p* = .12). There was a statistically significant difference in overall health between African Americans (*M* = 2.81, *SD* = .87) and Caucasians (*M* = 2.57, *SD* = .82), *F* (5, 1,662) = 7.20, *p* = .001. There was not a statistically significant difference in happiness (*p* = .06) or optimism (*p* = .36) between races.

Regression Analysis.

Finally, a regression equation was conducted to predict happiness using overall health, sleep, and optimism. The results of the regression indicated the three predictors explained 28.7% of the variance in happiness (R^2 = .29, *F* (4, 1558) = 157.14, *p* < .001).

DISCUSSION

The goal of this study was to determine if there was a relationship between happiness, optimism and perceived health. Further, the study examined the differences between race and gender on health as well if happiness could be predicted by health, sleep and optimism. The study found health and happiness as well as optimism and happiness to be inversely related. An inverse relation shows that as one factor increases,

the other decreases. However, optimism and health showed a significant positive correlation, meaning as one increase or decreases, the other does the same. This finding is supported as well in a study done by Conversano, et al, that found that regardless of demographic factors, optimism and health shared a positive correlation (2010). The study also found weekday and weekend sleep to be positively correlated with overall health, total happiness, and optimism. This is consistent with findings from a study that found a relation between optimism and sleep quality (Uchino, Cribbet, Kent de Grey, Cronan, Trettevik & Smith, 2017).

The second purpose was to examine the differences between race and gender on health, happiness and optimism levels. The study found a significant difference between health in African Americans and Caucasians but there was not a significant difference between happiness or optimism levels. This data is contradictory of previous research finding African Americans to be more optimistic than Caucasians (Graham & Pinto, 2018). The same study also found that race was not a factor that impacted health, but rather location and access to healthcare (Graham & Pinto, 2018). However, it was reported that females had significantly higher levels of health and happiness than males. The study did not find a significant difference in optimism levels between males and females. These findings are semi-supported by past research. One study done in 2017 found that females were more likely to score higher on a subjective-well-being test but also be more optimistic than males (Yue., Hiranandani, Jiang, Hou & Chen, 2017).

Lastly, a regression equation was used to determine if happiness could be predicted by health, sleep and optimism. The results found that health, sleep and optimism explained the one fourth variance in happiness amount participants. Past

research has found that happiness and health were associated, and well as happiness and optimism (Peltzer & Pengpid, 2013).

There were several limitations of this study. One being that the participants may have answered the questionnaires inaccurately: either without motivation, in a socially desirable manner, or they may not have understood the questions at all. The study also had a sample size of 2287 participants, which is another potential limitation. Future studies might want to consider a larger sample size. The age range was also limited (17-24), due to it being a study on Generation Z. Due to the time of this study, this was the only age range that included old enough participants in Generation Z, but studies done in the future will be able to allow larger age ranges as gen Z continues to age. Location is also a limitation. This study was done in universities located in the southeast, and students from other regions may have different survey answers. This study was also limited to university students and did not include individuals who were not enrolled in school. Future researchers might consider opening the sample to include students outside the southeastern United States and working-class generation z.

Implications of this study are that optimism levels, gender, and race could be predictors of health. This study showing that individuals that are more optimistic tend to be healthier, females tend to be healthier and happier than males, and there are health and optimism disparities between African American's and Caucasians. Future research should further investigate the relationship between optimism and happiness to find if they continue to be inversely related. Future research should also explore the relationship between happiness and health, considering the conflicting results found in this study.

Other parts of this study that should be further investigated is the relationship between health, happiness, optimism and race.

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