Media's Influence on Lifestyle and Nutrition Habits Among College-Aged Individuals Courtney Van Winkle, Natalie Davis, Jon Atnip, Arthur Gray

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The purpose of this survey is to examine the media's influence on the lifestyle and nutrition habits of college students, ranging from ages 18-23, and how the media persuades their choices and behavior. The survey will ask questions about some of the strategies that young adults use to achieve their nutritional goals, while also exploring different barriers that this age group experiences on a daily basis due to higher media exposure. By assessing these college aged individuals, the root causes of poor nutrition habits will be identified and in turn, will help young adults improve their lifestyle in the future by gaining a deeper understanding of nutritional information.

Media usage has become an essential part of living in the modern world, and this use is only becoming more prevalent as new ways of consuming it are constantly being updated and invented. As this digital form of media is a relatively new part of the human experience, researchers have understandably started to study its effects on people's behavior, habits, and lifestyles. The most active group of people using digital media today are millennials, thus making them the most prone to these influential factors. This group of young adults, ages 18-24 years old, are using media platforms to collect their information on different lifestyle health choices. Due to this age group receiving a large part of their health and lifestyle information from various forms of media, a lack of credible sources on these outlets may have lasting effects on their health if advice from these sources is taken seriously. It is important to study these effects in order to better understand how the lifestyle behaviors of this age group are impacted. This survey study will attempt to do that by gathering information from a sample of this age group in order to have a better overall understanding of the health habits of young people as well as to draw conclusions from their responses.

According to Riley Griffin from the Huffington Post, social media usage has increased nationally by almost 1000 percent in eight years for people between 18 and 29, and according to findings from the Pew Research Center, more than 98 percent of college-aged students use social media. These numbers imply that the impact of media on this age group is higher than it has ever been, and shows no signs of slowing in its influence. One of the main issues with this phenomenon is that many of these platforms portray false identities. The best possible versions of individuals is what is presented on these media bases, however, the measures that are taken to reach those images are not illustrated. Because of this, the mental and physical health of college students is highly manipulated and lead to long term side effects such as anxiety, depression and eating disorders. Various studies have also found that increased average daily exposure to different media outlets using LED screens leads to a reduced amount of quality sleep. When something as widespread and prevalent as media is influencing so many fundamental aspects of living a healthy lifestyle, it becomes easier to accurately measure these influences with a sample from the general population of those impacted. By asking millennials questions regarding their daily media use, sleep patterns, nutrition habits, and overall well-being, this survey study will attempt to make connections between these factors and potentially draw conclusions about what it takes in modern times for young people to indulge in healthy lifestyles.

In this paper, a discussion about some of the factors that lead to unhealthy eating and lifestyle habits among young adults with research backed answers will be brought up. Examples of what questions were included on the survey questionnaire will be explained. Through the questions the group asks during this study it can determine whether the hypothesis is correct or incorrect. The methods that are used during this survey will be discussed including how the participants were selected, different variables, the procedures, and the how the data is analyzed.

The data from the survey questionnaire will then be discussed, as well as, the limitations throughout the study.

Literature Review

"As social media use grows, so does the risk of these young adults developing eating disorders and concerns about body image" (Wood, 2016). Advertisements revealing what to eat, where to eat, and how to eat have been commonplace in society for over fifty years. Over time, dietary influences have been broadcasted from magazines, television commercials, and in more recent years from social media. However, even as interaction with social media rises, the variables of the advertisements remain the same. No matter what medium is used, a portrayal of a thin body image has been more commonly displayed than not. More recent research suggests that the popularity of these older media types is being overtaken by the popularity and availability of more interactive media such as the Internet, particularly among adolescents (Bell & Dittmar, 2011; Tiggemann & Miller, 2010).

The media influences young adults in many different ways. Bouchard, Caron-Bouchard, Dube, Maisonneuve, Mongeau, and Renaud, (2016) describe these as "negative and positive loops." These positive and negative loops shape society's perception of what the social norm is, or should be. The positive loop includes "direct communication of social expectations, the indirect effect of social influence, and the indirect effect of influential agenda setting" (Bouchard, Caron-Bouchard, Dube, Maisonneuve, Mongea, and Renaud, 2006). The negative loop mimics the positive loop, which includes, "direct communication of social disapproval, disapproval using media influence, and agenda setting by social institutions" (Bouchard, Caron-Bouchard, Dube, Maisonneuve, Mongea, and Renaud, 2006). The previously listed researchers

from A Model of Mechanisms Underlying the Influence of Media on Health Behavior Norms propose that opinion leaders and specialists contribute to these negative and positive loops that are working towards becoming the social norm. Additionally, opinion leaders use "media advocacy" to shape public opinion. Media advocacy is defined as, "the set of skills used to create a shift in public opinion" (Wallack, 1993). The media uses this media advocacy to determine what these positive and negative loops are and achieve their message.

Young adults, 18-23 years of age, are persuaded by the media but they are also uninformed about unhealthy food portion sizes, which is a huge factor in obesity among college campuses. Lauren Dundes and Rachel Bryant (2005) argue that college students are at risk of overeating due to the wrong portion sizes. They describe that the college cafeteria setting increases the risk of college students from overeating. In their study, they had students pour their usual portion size for cereal, candy, and punch. Through their study, they found that undergraduates consume almost double of the serving size written under the nutrition facts on the products packaging. Dundes and Bryant argue that students are too time-consumed and fail to measure the appropriate serving size, which contributes toward students over eating. Dundes and Bryant's argument is very similar to Zagorsky and Smith's theory of the "Freshman 15." Where it is discussed that the college cafeterias make it easy to have "all-you-can-eat" food readily available, which in turn, contributes to unhealthy calorie-dense food choice.

This focus group study benefits young adults that are in a transitional period in their lives. They are at a time where they are taking on more responsibility and gaining more freedom, and also setting the stage for their future health and nutrition habits. College students often lack knowledge of the overall requirements needed to incorporate from the food pyramid into their daily intake because they have never had the independence of living away from their guardians.

Therefore, this stage is crucial for them to learn the important information needed to develop a robust lifestyle and stray away from poor eating choices. According to the national study of health, college students tend to engage in a number of problematic eating behaviors, including unhealthy dieting, skipping meals, high intake of fast foods, low intake of fruits and vegetables, and minimal consumption of dairy products (Cotunga & Vickery, 1994; Douglas & Collins, 1997; Huang, Harris, Lee, Nazir, Born and Kaur, 2003; Matvienko, Lewis, & Schafer, 2001).

Along with not eating a healthy balanced diet, students have been known to "Mindless eat." "Faced with a variety of eating choices, young adults begin to make mindless eating decisions, embracing new habits away from the structure of home" (Centers for Disease Control and Prevention 2012). Students are so focused on studying and partake in watching television shows and tend to mindless eat because they are so distracted. An example of mindless eating would be someone eating a family size bag of chips while watching a television show and not even realizing they ate the whole bag. Students are subjected to this kind of eating due to their busy schedule and on-the-go lifestyle.

After examining the role of media, it is necessary to consider the effects of social media consumption in modern society, it is clear that the lack of nutrition knowledge among young adults isn't the only thing factor in aiding college students to gain weight. Social media platforms are now implemented into the daily lives of young people around the world. In the United States, up to 90 percent of teenagers and young adults report using Facebook, whereas more than half use Instagram and one-third use Twitter (Carrotte, E. R., Vella, A. M., Lim, M. S., 2015). The health and fitness related content that comes from these mediums is limitless to networking users. However, the information can come from uncertified individuals with ideas and opinions with no degree of validity or credible knowledge. One type of health and fitness-

related social media content, "fitspiration," refers to messages designed to inspire individuals to achieve a health or fitness goal, usually through exercise and dieting (Carrotte, E. R., Vella, A. M., & Lim, M. S., 2015). The idea behind these posts is to motivate and inspire others to gear towards a certain images or goals depicted on the screen. These traits can range from pushing exercise past the point a body can handle, focusing too deeply on an outward appearance, and praising a certain body image while shaming another. Unfortunately, the tactics used to reach these standards for certain individuals are harmful for physical health and well-being and can cause an individual to stray away from an authentic hearty lifestyle.

Because of advancements in the ease of media consumption, people's average exposure to screens on a daily basis is higher now than it has ever been. A study conducted by researchers in China found that, "In Western countries, children aged 4-17 years old spend 16.3-29.1 hours per week on television viewing and/or other forms of entertainment, such as computer games, internet use, and movies." (Li, Jin, Wu, et. al., 2007). This widespread usage of new media has led researchers to study its effects on the physical and mental health of its consumers, the assumption being that something used this often has an impact on users' well being. Some of the most compelling findings on this subject have to do with LED screens and their negative effects on sleep. The recommended amount of sleep for the average adult is between seven and eight hours a night, but according to the Centers for Disease Control & Prevention, "Substantial increases in the percentage of U.S. adults reporting an average of <7 hours of sleep per 24-hour period were observed from 1985 to 2004 and can be attributed in part to broad societal changes, including increases in technology use and shift work" (CDC, 2011). The Chinese study reports similar findings: "The present study demonstrates that the presence of media equipment in a

child's bedroom and media use were correlated with unhealthy sleep patterns and significantly associated with sleep disturbances"(Li, Jin, Wu, et. al. 2007).

A correlation clearly exists between sleep deprivation and average daily screen time, so determining the cause of this correlation was the next step for researchers. A study published by the "Journal of Applied Physiology" explored this phenomena by measuring the melatonin, alertness, and cognitive performance levels of men aged 18 to 36 after increased LED screen time exposure for two weeks. "Our data correspond with previous observations that human circadian physiology and alertness levels are particularly sensitive to short-wavelength light" (Cajochen, Frey, Anders, et. al., 2011). In this study, the participants were found to perform better on cognitive tasks with LED backlight screens than without them. LED screens emit higher wavelengths of light, seen in colors such as blue and green. This study concluded that the human sleep cycle is particularly responsive to these wavelengths at even lower intensity levels than previously thought. "...the circadian pacemaker located in the suprachiasmatic nuclei most likely received a longer "day" signal, which could have induced a phase delay" (Cajochen, Frey, Anders, et. al., 2011). These findings further support the theory that high wavelength light tricks the brain into thinking it is still daytime, causing higher alertness later in the day which in turn results in a disruption of usual sleep patterns.

The impact of this LED-induced alertness can be measured, as a study conducted in 2016 showed after adult participants logged their daily screen time for 30 days. "Longer average screen-times during bedtime and the sleeping period were associated with poor sleep quality, decreased sleep efficiency, and longer sleep onset latency" (Christensen, M. A., Bettencourt, L., Kaye, L., et al., 2016). Time logged during hours closer to bedtime was shown to correlate with other similar studies in that more exposure to it resulted in lesser quality of sleep. The

implications of these studies all relate in ways that show negative effects of higher average media time on healthy sleep, particularly around bedtime hours. It is important for researchers to continually measure these effects as media becomes more prevalent in everyday life, as documenting these findings leads to increased awareness of how to combat LED- caused sleep deprivation by cutting down average daily screen time and staying away from digital media in the hours before bedtime.

Research has also been conducted on comparing the effectiveness of self-generated versus message-aided implementation intentions on promoting healthy snacking habits among college students. "Health campaigners have also tried to promote healthy eating and break unhealthy eating habits by changing attitudes, motivations, and intentions" (e.g., Freedman & Connors, 2011; Peterson, Duncan, Null, Roth, & Gill, 2010). Examiners study how some advertising attempts to make college students eat healthier snacks by trying to implement implementation intentions. "The implementation intention framework proposes that if people deliberately plan and link a goal-pursuing behavior with a situational cue, they can notice those cues and perform the behavior more easily" (Gollwitzer, 1999).

Researchers examined the media influence of television and film viewing on women's body image, food choices, and disordered eating. Even though this study focuses mainly on women it is very important because what influences women does not always influence men too, and vise versa. The study brings up a desperate housewive effect where women in their 30's, 40's, and even 50's feel like they have to look younger to keep their man because that is what is portrayed on television. Even though that is not the age of a college student it is important to know because their is a similar effect in college women. "Roughly 10 million women in the United States suffer from eating disorders" (National Eating Disorders Association, 2011).

"Although there is no official statistical breakdown of that number by age group, experts who direct eating disorder treatment facilities across the United States estimate that the rapid increase in the number of midlife patients over the past 10 years could be as high as 500%" (DeCarlo, 2005; Epstein, 2009). Examiners feel that models, being so skinny, are looked upon very highly and women try to get as thin as these models seen in an unhealthy way.

Through looking at specific behaviors among college students we intend to find out why young adults have a hard time maintaining a healthy body image and nutrition status. Our study will look at how many young adults rely on media sources for their health and nutrition facts, their portion sizes, measure their knowledge of basic nutrition facts, and find out how many hours they spend looking at LED screens. In this study, our group hypothesized that college students are under educated in nutrition and health which leads to unhealthy lifestyles. Along with not having the knowledge of nutrition and health our group believes that what is put out in media posts is extremely influential towards what this age group believes in as social norms, including body image and diet.

Method

There was no specific race or ethnicity used in this study, as media usage and health habits are dependent on the individual, so a convenience sample of young adults between 18-24 that were available in the Kennesaw area and who had an inclination to assist in this research study were surveyed. 16 of those surveyed lived at home with family members, and the rest lived in the Kennesaw area with roommates in apartment complexes, rented homes, or town houses. 24 of the subjects were male, and 26 were female. Four of the respondents were born outside of the United States, but all moved to the country in their early years of adolescence. Two males were from South Africa, one female was from Germany, and the final subject was from

Venezuela. The remaining participants were all born in the United States and have lived primarily in Georgia, as well as other surrounding states including South Carolina, Alabama, and Florida.

Using the likert scale, participants were emailed the survey, completed a printed-out document in person, and called on the phone where they answered questions verbally. Immediate responses were helpful in gathering the dynamics needed to continue the study. There was no penalty for withdrawing from the survey, and the process only took approximately 15-30 minutes varying on how engaged participants were. Research participants consisted of 50 volunteers on the Kennesaw campus as well as surrounding locations. The goal after interviewing subjects was to contribute the knowledge of college aged individuals and propose potential solutions to the different various health issues previously found to be associated with widespread media usage.

A majority of the participants were Kennesaw State students. About one-third of them had part-time jobs and were constantly on the go. Each subject was important to this survey because they added to an already diverse group of individuals with different backgrounds and different majors, which contributed to the representability of the sample compared to the overall population. The individuals were ensured confidentiality through a written statement at the top of the survey, and willingly volunteered to be a part of it. Each participant was aware that their name would not be included in the research and that they would be known by a participant number. Participants were asked to respond to different questions about health, nutrition, sleep patterns, and media usage on a scale of one to five, one being strongly disagree and five being strongly agree.

At the end of the study, data was analyzed by grouping the participants' responses to those with similar responses from all groups of the study in order to form telling statistics. By

grouping similar responses, connections were made in how young adults behave towards nutrition, mental health, and sleep, and how these behaviors were influenced by their average media usage. Once the surveys were completed, percentages of the responses were measured and compared in order to form plausible conclusions about how these different factors are influenced by overall media usage. The gender of participants was taken into account when analyzing the statistics taken, as women tend to behave differently than men. Those who reported higher media usage were compared to participants who reported lower usage. The reports of volunteers' perception and behaviors involving factors including sleep, nutrition, and body image were taken into account and compared to overall media usage reportings as well. The independent variable of media usage reported allowed this study to be able to draw accurate general connections that were synonymous with previous studies about the ways young people's health habits and lifestyles are affected by media today.

Survey Questionnaire

Participants in this survey will remain anonymous, and will be represented by a number in research. All data provided is confidential, and by completing this survey participants confirm that they are volunteers. The questions below are from the survey, that each participant answered, and were answered on the likert scale. Answers ranged from 1-Strongly Disagree to 5-Stongly Agree.

- 1. I am knowledgeable about health and nutrition.
- 2. I work out approximately three to four times a week.
- 3. The media influences my lifestyle choices and habit.
- 4. I prepare my own meals at home most of the week.
- 5. I find it difficult to keep up with a healthy lifestyle because of school/ work.

- 6. I eat fast food on a regular basis.
- 7. I eat when I am stressed due to my schedule.
- 8. I eat fast food because it is inexpensive.
- 9. I understand how to read a nutritional label.
- 10. I pay attention to my caloric intake.
- 11. I am required to use different forms of media for school/ work.
- 12. To lose weight I need to eat as little as possible.
- 13. As long as you are not overweight you are healthy.
- 14. I have easy access to a gym or fitness center.
- 15. I spend at least three hours looking at screens every day.
- 16. I compare my body image to others on social media platforms.
- 17. I sleep on a regular schedule (go to sleep at the same time, wake up at the same time).
- 18. I eat three meals every day.
- 19. I eat from all five major food groups every day.
- 20. I drink alcohol at least once a week.
- 21. I am active on social media.
- 22. I use my smartphone within an hour before I go to sleep.
- 23. I use an LED screen at least once every day.
- 24. I use media in my free time (movies, video games, TV etc.)
- 25. I get the recommended amount of sleep every night (seven to eight hours).

Results

This study was conclusive in showing multiple different ways that college-aged individuals are affected by media usage. All of the participants reported that they use some form of LED screen or media at least once every day. The amount of media usage each day was found to be consistent for both genders, so according to this survey neither men nor women used media more on average. 45 of the participants agreed that media was an important factor in their school and work life. 22 of those surveyed said they spend at least three hours using screens/ media per day; 11 men and 11 women. Less overall sleep as well as unhealthy sleep habits were reported in those who said they spent more than three hours of media usage per day. 18 out of 22 people in this category also reported more negative eating habits than positive. Those who reported using screens within an hour before going to bed were also more prone to having poor sleep habits than those who just reported over three hours of screen time per day, with 17 out of 22 participants answering that they received less than the required eight hours per night. Comparatively, only 10 out of 28 people who spent less than three hours of screen time per day reported losing out on sleep. 100 percent of those who reported using screens at least three hours a day also said that they used some form of LED screen within an hour before they go to sleep.

All participants responded that they were knowledgeable about nutrition, but there were inconsistencies between their reported knowledge and actual habits. 32 of those who reported being knowledgeable about nutrition responded with a majority (over 50 percent) of their answers being consistent with negative eating habits. The people who reported using screens for more than three hours a day also reported poor nutrition and health habits, as discussed above. 28 participants reported that they received most of their information on nutrition from different media sources. These 28 answered a majority "agree" or "strongly agree" to negative nutrition habits questions more often than those who reported they did not. 20 out of 28 reported that they

had negative eating habits, whereas 12 out of 22 of the group that answered "disagree" reported the same. 40 of the participants also said they found it hard to keep up with a healthy lifestyle because of school or work. None of those surveyed agreed that they are from all five major food groups each day.

Women were found more likely to answer "agree" to questions regarding body image issues than men. 22 out of 26 of women said they compare their body image to others on social media platforms, while 10 out of 24 of men responded the same. 100 percent of the women said that they were active on social media, and 90 percent of men said they were as well. All of the participants said they use different forms of media in their free time, but men selected the "strongly agree" response on this question more often than women, whereas women selected "strongly agree" marginally more often than men on the question regarding social media activity. 20 out of 26 women said that media influences their lifestyle choices and health habits, while 13 out of 24 men responded the same.

Discussion

Many of the findings in this study were synonymous with previous studies in that the way participants responded correlates with common health problems that are a result of high media consumption. Sleep, body image, and nutritional habits were the three main areas this study focused on, as well as the different ways college aged men and women react to digital media. Digital media's prevalence was shown in this study by the statistic that showed 100 percent of the people surveyed reported that they used some form of it every day. Media was shown in this study to have a very negative correlation with people's sleep patterns, especially for those that reported using screens for over three hours a day, including within the hour before going to sleep. Participants who reported higher screen times also reported less sleep, matching up with

previous studies' findings. Nutritional habits were also found to be affected negatively by higher daily media consumption, which can be seen in the numbers of people who reported being knowledgeable about nutrition while getting their information from various media sources, but at the same time having negative nutritional habits. This could be due to a number of factors, including workload, social influences, and financial income, but the data in this study found that those who spend more time on media and report getting their nutrition information from it had a higher aptitude for poor eating and fitness habits. This could be explained by the wide array of "get thin quick" workout routines and diets that are often advertised in media, many of which may be false or misleading. Body image among more active digital media users was found to be negatively impacted as well, specifically because more women reported on it than men. Women are the targets of more body shape and image advertisements than men, and these kinds of ads are commonly seen in social media, which women reported using more of than men in this survey.

Overall this study was conclusive in finding relations between high media consumption and negative health benefits, but there were some pitfalls that kept it from being as effective as it could have been. Participants were asked to answer the questions in this survey on a scale, which helped generalize how healthy the individuals thought they were. The only limitation it had was that the questions did not provide exact numbers on the health issue that was being discussed; for example: how many hours of sleep someone actually gets a night. Even though participants have no reason to lie, they might not answer some questions accurately for different reasons. The survey, while successful in producing conclusive statistics, was limited to questions only regarding health and media consumption, so outside influences that may have potentially affected these factors were not taken into account. Also, as this study was focused on three

different health concerns, questions were not specifically tailored to just one problem which caused data received to be more general and less focused than if only one health concern was discussed. The purpose of this survey was to draw connections about general health effects of media on young adults, and it was successful in doing that, but specification was limited due to the wide range of topics covered.

Because media is affecting daily life exponentially as time moves forward, researchers need to continue to study its impacts on health. It would be interesting to see the results other scholars can come up with through continued studies, especially if they choose to focus their study on only one of the health concerns mentioned in this survey. By putting all their focus on just body image, or sleep, or nutrition habits, researchers may be able to more accurately pinpoint the causes of some of these health issues that plague the modern population. Because women are more negatively affected by body image issues than men, a good idea for a study would be to look at the specific kinds of media that cause these issues to arise, as well as the amount of activity on said social media and its effects on women versus men. As technology is constantly evolving, studies on its negative and positive impacts on the population need to evolve with it. By finding specific connections and expanding overall knowledge about this new, ever changing medium, people can become more aware of, and begin to combat the health problems that arise from too much media consumption.

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