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## A Qualitative Analysis of Young Adults' Health and Wellness Perceptions, Behaviors, and Information Seeking

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# A Qualitative Analysis of Young Adults' Health and Wellness Perceptions, Behaviors, and Information Seeking

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*Access to health- and wellness-related resources is unprecedented, and the desire to attain and use that information is high. However, the information is not always accurate, and individuals may be selectively choosing the information they read and follow. Additionally, although Americans have access to more health and wellness information than ever before, rates of obesity, hypertension, and sedentary lifestyles are still high. This study investigated information seeking for health and wellness-related resources by healthy, educated, young adults and their health and wellness perceptions and behaviors. Five focus groups were conducted with 35 young adults to gather information about diet, exercise, sleep, and stress management. The information-seeking skills and skepticism of information were high for this sample. They were more informed and practiced healthier behaviors related to nutrition and exercise than expected. However, they were less knowledgeable about good sleep hygiene and had varying sleep behaviors. The stress management techniques employed were a balance of healthy and unhealthy behaviors. This study's findings imply that it would be useful for family and consumer sciences educators and Extension professionals to add educational programming about good sleep hygiene and stress management techniques in addition to nutritional and healthy activity education.*

*Keywords:* health behaviors, wellness perceptions, information seeking, young adults

## Introduction

Family and Consumer Sciences (FCS) professionals are tasked with educating people on various topics related to health and wellness, as this is a core component of the discipline's body of knowledge (Nickols et al., 2009). Misinformation and misunderstandings related to health and wellness information are common, as is failure on the part of consumers to incorporate knowledge into behavior. Extension professionals and FCS educators have frequent opportunities to provide legitimate, evidence-based educational content and would benefit by understanding what perceptions young adults currently have related to health and wellness information, the behaviors in which they are engaging, and where they are getting their health and wellness-related information.

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The internet has allowed consumers quick and easy access to an unprecedented amount of information at low or no cost. One of the areas that has received much attention is health and wellness (Chapman et al., 2010). Some reputable health promotions and interventions provide quality health-related information to the public, but unfortunately, not all information available to consumers is legitimate, nor is it always based in science. Information found on the internet may have an inherent bias, with intentions to sell a product or misleading for some other reason (Cline & Haynes, 2001). Research also shows that most consumers do not question the quality of online health information and use evaluation criteria not recognized by existing web quality guidelines (Diviana et al., 2016). According to Longo et al. (2010), patients often prioritize the accessibility and comprehensibility of information over accuracy or validity. This highlights the need for qualitative research investigating why consumers would choose possibly inaccurate information over legitimate resources.

An increasing number of consumers prioritize the attempt to improve, maintain, and control their health status and overall wellness (Longo et al., 2012; Zhang, 2012). These newly emerging consumer trends in health and wellness show that people are putting in the time, money, and effort to make well-informed decisions about medications, illnesses, health conditions, and healthcare services.

This research investigates whether educated young adults are concerned with health and wellness and if they behave in ways that illustrate this concern. The health and wellness perceptions, behaviors, and information seeking of healthy, educated, young adults were explored through focus group discussions. In these discussions, participants described their health and wellness perceptions and behaviors, and how they determined what information they would use to inform these behaviors. To the authors' knowledge, this is the first qualitative study to investigate health and wellness perceptions, behaviors, and information-seeking patterns in young adults. If consumers are indeed more concerned with health and wellness and are changing their behaviors based on the information they seek out, it is important to make sure these consumers are getting accurate information.

## **Review of Literature**

### **Information Search and Information-Seeking Behavior**

Research by Longo et al. (2010) provides support for the complexity of health information-seeking behavior. Consumers do not take a linear approach toward behavioral change; instead, they make decisions based on their current health needs and the already acquired information. On a daily basis, consumers actively seek or passively receive information regarding diet, lifestyle, and exercise routines (Longo et al., 2010). Once consumers identify a source credible enough for their individual needs, they add the newly acquired knowledge to the already existing web of information. Some parts are filtered out, but the information determined to be significant or relevant is retained.

McKenzie's (2003) research-based, socially-conceptualized continuum further explains such information-seeking behavior: the willingness to actively search for new information varies from creating a list of questions to merely getting advice. Many consumers utilize traditional sources such as consultations with healthcare professionals and medical publications as well as social networking sites (Zhang, 2012). For example, eHealth portals have recently gained popularity due to their comparatively low cost and high degree of personalization (Chapman et al., 2010), and they are being used by all age groups (Ybarra & Suman, 2008).

Seeking health information online can be both empowering and disempowering for consumers, according to Korp (2005). Consumers have instant access to advanced information, and they can access this information anonymously and conveniently. Online access to health information can be disempowering to consumers because it widens the gap between "information rich" and "information poor" users, which may increase anxiety and ultimately result in poorer health (Korp, 2005).

Consumers obtain health-related information from various sources throughout their lives, such as healthcare professionals, word of mouth, wellness programs, seminars, and digital or print media (Longo et al., 2010). Another commonly identified source is general health education in primary and secondary schools; however, many general health classes do not follow national standards or are not prioritized by school district (Birch et al., 2015). If taught according to national standards, these courses would promote both academic success and health awareness.

Hospitals and healthcare services have increasingly adopted social media for communication purposes (Costa-Sánchez & Míguez-González, 2018). The legitimacy of health information available to consumers varies, but patients prioritize the accessibility and comprehensibility of the information over accuracy or validity (Longo et al., 2010). Those with higher health literacy can better filter and discern a resource's validity or the information than those with poor health literacy (Longo et al., 2010). As previous studies have demonstrated, however, some users lack the skills to confidently evaluate online health information legitimacy yet continue to attribute validity to the information (Klawitter & Hargittai, 2018).

### **Perceptions of Health**

Consumers acquire relevant knowledge and form their perception of health through general education, professional advice, and personal experiences (Brooks & Moore, 2016; McKenzie, 2003). A commonly used method to assess people's opinions about health is to ask the respondents themselves. Self-rated health measures take a holistic, ecological approach by incorporating feelings and attitudes toward health and life to broaden the concept of health, instead of merely considering health from a deficit approach (Ahlborg et al., 2017). It also encompasses the level of health literacy (Inuzuka et al., 2018) and can provide a bigger picture of the respondents' opinion and definition of health (Idler & Benyamini, 1997).

According to the Centers for Disease Control and Prevention, most Americans perceive their overall health to be in relatively good condition, with only 11.9% of respondents rating their health as fair or poor (National Center for Health Statistics [NCHS], 2018). Unfortunately, Americans are not, in fact, as healthy as they think. The leading causes of death in 2015 and 2016 were heart disease, malignant neoplasms (cancer), and chronic lower respiratory diseases, disregarding accidents (Raghupathi & Raghupathi, 2018). According to recent research, COVID-19 has become the third leading cause of death in the U.S. (Zhou & Stix, 2020). It is more prevalent among those with medical conditions such as obesity, diabetes, heart disease, severe asthma, or compromised immune systems (Williamson et al., 2020). The prevalence of obesity, hypertension, and sedentary lifestyle actively contribute to the country's growing health problems (Raghupathi & Raghupathi, 2018), but many remain oblivious or negligent.

There has been an increased number of mental health-related issues and illnesses in America, especially among young adults and college students (Flatt, 2013). According to the National Institute on Mental Health (NIH, 2019), in 2017, young adults aged 18-25 years had the highest prevalence of any mental illness (AMI; 25.8%) compared to adults aged 26-49 years (22.2%) and aged 50 and older (13.8%). NIH defines AMI as a "mental, behavioral, or emotional disorder. AMI can vary in impact, ranging from no impairment to mild, moderate, and even severe impairment" (NIH, 2019, Definitions section).

Self-reported anxiety and depression have increased since April 2020, especially in younger people, women, the less educated, and some racial minority groups (NCHS, 2020). Although more students are seeking help (Flatt, 2013), discussion of mental health is still stigmatized among African Americans (Brooks & Moore, 2016) and Asian American (Na et al., 2016) communities. Due to poor mental health literacy in these demographics, many patients do not consider mental health a crucial part of overall health and wellness and refrain from actively seeking out the help they need (Na et al., 2016).

### **Theoretical Framework**

The human eco-system theory was the theoretical basis for this research. This theory asserts that the individual is part of a system, interdependent within its natural physical-biological, human-built, and sociocultural environment (Nickols, 2003). Human eco-system theory is synergistic and integrative, making it useful for studying various family and consumer issues (Nickols, 2001). This theory expands on human ecology theory, which focuses on humans as they interact with their environment as biological organisms and social beings (Bubolz & Sontag, 1993). Many interrelated systems are also at play related to health and wellness. For instance, Taylor (2018) recently suggested four "unmedicated" pillars of health, illustrating emotional, spiritual, physical, and social wellness to advocate natural wellness and anti-medication reliance. *Eight Dimensions of Wellness* used by the Substance Abuse and Mental Health Services Administration (SAMHSA, n.d.) and many others include additional aspects such as environmental, financial, intellectual, and occupational. As the research and popular press on

overall health and wellness become more specific and subdivided, the landscape of health and wellness continues to grow. The human eco-system theory encompasses many holistic recommendations, such as how one's environment or financial health can affect physical health. For this study, researchers focused on the physical, environmental, social, mental, and spiritual aspects of health and wellness.

## Research Questions

To determine whether increasing health issues result from inaccurate or incomplete health-related information, it is important to assess how and where people get their health-related information, how they perceive that information, and whether that information is related to their behavior. Because an average American exhibits considerable difference between their self-perceived health and actual health, investigating a population with smaller difference (i.e., those with better actual health) would provide deeper insights into consumer self-perception and cognitive dissonance related to health and wellness. As a starting point, this study focused on a population of educated, healthy, young adults. The authors hypothesized that this population is less likely to have serious health problems compared to others due to higher education levels, more accessible healthcare and health-related information, and younger ages.

The purpose of this research was to determine where educated, healthy, young adults acquire health and wellness-related information, examine how they perceive their health and wellness, and investigate whether they engage in healthy behaviors or perceive that they do. Based on the review of existing literature, these research questions formed the foundation of this study:

1. How do educated, healthy, young adults acquire health-related information?
2. What are the perceptions of health and wellness among educated, healthy, young adults?
3. In what kinds of health and wellness-related behaviors do educated, healthy, young adults engage?

## Methods

### Study and Sample

The researchers took a qualitative approach for an in-depth exploration of healthy, young adults' opinions related to health and wellness, focusing on the socially constructed nature of reality. Before proceeding, the Institutional Review Board approved the study. The sample included students at a large public university in the Southeastern U.S. Participants were required to be healthy, educated, young adults. This was defined as being a currently enrolled college student, a nonsmoker, a regular exerciser, having a healthy body mass index (BMI) score (between 18.5 and 24.9), and aged 18 to 25 years old. During the first recruitment phase, we posted flyers illustrating the purpose of the study, qualifications, and incentives around populated areas of the university campus, such as student centers and residence halls. In the second recruitment phase,

academic advisors sent emails with the flyer attached to the general student body. Interested participants voluntarily filled out an online consent form and an anonymous online pre-screening questionnaire on Qualtrics that assessed their participation eligibility. Responses that did not meet the criteria were immediately deleted, yielding a total of 88 pre-screened responses.

Thirty-four students participated in focus group discussions. Because some students were double majors, 38 different majors from nine Colleges and Schools across the campus were represented. Among these majors, not many (13.2%) were directly related to health; however, a majority of majors (73.7%) seemed to have relevance with a broad definition of consumer wellness, concerning various “pillars.” Popular majors represented in this sample included Animal Science, Environmental Economics and Management, and Nutritional Sciences. The demographic breakdown of participants included 11 men and 23 women; 17 were White, 10 were Asian, 3 were Black/African American, 3 were of mixed race, and 1 identified as other. Nine freshmen, 4 sophomores, 8 juniors, 11 seniors, and 2 graduate students comprised the sample.

## Procedures

Five focus group sessions, each with four to nine students, took place over two weeks in February 2019. Researchers emailed qualified participants a link to sign up for a 90-minute-long focus group session at their preferred time. At the focus group discussion, subjects read and signed an informed consent form and completed a brief survey about their demographics, health information, and perception of personal well-being. Focus group sessions were audio-recorded while participants discussed various health and wellness-related topics. Participation was voluntary, as participants did not have to answer all questions if they were uncomfortable. Student participants were asked to make a name card with a pseudonym if desired to protect their anonymity. Students who participated in the entire focus group were given a \$25 gift card.

The researchers came from different educational, age, and ethnic backgrounds. Both researchers were present at the focus group meetings and actively took notes. One researcher, who had prior focus group experience, facilitated the discussion by asking the questions in Table 1. The second researcher transcribed the notes after the focus group discussions concluded.

### *Table 1. Focus Group Questions*

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1. Would you consider yourself a healthy eater? What does this mean?
  2. Do you take any dietary supplements?
  3. Do you pay attention to ingredients in food/nutrition labels? What specifically?
  4. Do you have a regular exercise routine? What does it consist of?
  5. Do you get enough sleep? What does this mean to you?
  6. How do you manage stress?
  7. Do you know what mindfulness is, and do you practice it?
  8. What does a healthy social support system look like to you?
-

## Measures

The pre-focus group survey included two quantitative measures of health and wellness. Participants indicated overall self-rated health on a scale of 1 to 10, with 1 being extremely poor and 10 being extremely healthy. Another question was a modified version of Cantril's Ladder, a question designed to examine overall perception of life satisfaction (Levin & Currie, 2014). Participants viewed a picture of a ladder and were asked to imagine the top of the ladder as the best possible life (6) and the bottom as the worst (1). They then indicated where on the ladder they felt they were standing at present.

## Analytical Strategy

The lead researcher manually created a Microsoft Word transcription of the notes taken during the sessions. Both researchers conducted qualitative analysis on the transcriptions of the audio recordings of the sessions using best practices suggested by DeVaney et al. (2018) and Lee (2014). We used Excel for coding the data. We then identified potential themes of health and wellness-related information source, perception, and behavior from the transcriptions and manually identified and coded them. Each researcher analyzed the data separately and identified themes. The researchers then compared their analyses and agreed on themes establishing inter-rater reliability, but it was not numerically calculated. Collecting the information from five different focus groups of varying sizes, held at different times of day, in different locations, and with students with varying demographics ensured trustworthiness and triangulation of the data. To achieve validity, participants were asked to read the analyses and provide feedback on the researchers' interpretations.

## Results

### Perceptions of Health and Wellness

The healthy, young adult participants in this study had higher perceptions of their health and wellness than the mid-point of the scales used for the quantitative measures of health and wellness. Overall self-rated health scores ranged from 5 to 10, with a mean of 7.74. The modified Cantril's Ladder responses ranged from 3 to 6, with a mean of 4.39.

To further address the research question related to perceptions of health and wellness and to address the research questions related to health and wellness behaviors and health-related information, the researchers identified six themes related to the participants' perceptions of health and wellness: 1) balance and moderation, 2) emphasizing healthy while reducing unhealthy, 3) mindfulness, 4) irregularity due to busy schedules, 5) skepticism, and 6) importance of education. The focus group results discussed below are based on these themes. All names are the pseudonyms chosen by the participants. Some direct quotes were cross-referenced in more than one theme.

## **Balance and Moderation**

Although definitions of healthy eating varied among the participants, many considered regular, balanced meals consumed in moderation as healthy. Dominic described a healthy diet as “a balanced meal – not just all vegetables, not just all protein – but a good moderation, just a mix.” Rachel shared a similar observation, “[Healthy eating] is eating in moderation and getting balance from all the food groups. ... I think of salad or something, but it’s not healthy to eat salad like every day.” When looking at nutrition labels, participants paid attention to calories and serving sizes as they compared the written values to the daily-suggested limit as Ryan observed, “I usually try not to go above the serving size. I try to stay under it.”

Many participants had regular gym time built into their weekly schedule and a balanced workout routine, including different types of exercise and working on different parts of the body. Some incorporated alternative methods such as receiving personal or intensive training, participating in team sports, or using mobile applications or an online program. Two male participants had unbalanced exercise routines as they had incorporated limited cardiovascular exercise paired with more than sufficient strength training.

The daily habits of participants showed some balance. A majority of the students consciously included more walking into their day by avoiding taking the bus around campus or walking to and from home. However, some did not consider walking as part of their exercise and underestimated their moderate-intensity exercise amount in the survey. For example, Sam shared, “I walk everywhere, but I don’t count it as exercise.” At least some of the participants in this study consciously attempted to get enough sleep in their schedules, such as Ryan, “I try to get seven to eight hours. It helps that I don’t have any eight-ams. ... I avoid having eight-ams by scheduling” and Chandler, “I do get enough sleep. A lot of people get like three to five hours of sleep before an exam, but I always get at least seven hours.”

Some participants prioritized balance in their social life as well. Hannah stated, “I find it important to have a diverse range of people that I interact with ... it just helps me open up and be a mindful person and constantly, hopefully learning new things, new perspectives. That to me feels healthy.” Annie also shared, “It’s also really important to have boundaries and not just have one friend or one boyfriend or one person who you expect to meet your every need in life.”

## **Emphasizing Healthy while Reducing Unhealthy**

Healthy eating behavior was often characterized by consuming nutrients from fruits, vegetables, and whole grains while controlling or abstaining from certain ingredients or foods, such as soda, sugar, sodium, frozen, fried, or fast foods. FR said, “I eat fruits all the time, veggies all the time.” Hannah said, “I eat more vegetables and whole grains.” Savannah said, “I normally eat vegetables and try to stay away from fast foods.”

Most participants had their own perception and behavior pattern regarding food and nutritional labels. Many of them examined the ingredients list as a whole or at least the first few ingredients and preferred lists with fewer, more simple ingredients. Chandler noted, “I’ll take a look at the calories real quick, then sugar, and the first few ingredients because they are the main ones and make up most of the food,” and Melissa said, “something with less ingredients, I usually think as better.”

Many participants focused on specific ingredients and tried to avoid or minimize ingredients such as sugar, sodium, corn syrup, palm oil, gelatin, or saturated fat. The reasons for avoiding these particular ingredients were based on the individuals’ perceptions formed by something they had read or heard recently or developed through growing up in households that emphasized certain values and ingredients.

A few participants also paid attention to toxins and chemicals in nonfood products, like Melissa:

I’ll spend extra money on buying products without certain ingredients. There are a few that I ... experienced that affect my skin in certain ways, so I try to opt for cruelty-free items, or when I can afford it, vegan items, depending what is in there.

### **Mindfulness**

Participants seemed to practice mindfulness in different areas of life, including eating, sleep, and stress management. Some participants noted they tried to be mindful of how their body was feeling when eating. Molly described healthy eating as “having a healthy relationship with food” and “incorporat[ing] as many things as [one] can to [one’s] plate.” Sierra said, “Being well-nourished, being mindful of making sure [one is] having enough fruit, vegetables, a balanced diet.” She also added, “If [your body] needs a certain amount of calories to keep up with your activity, certain vitamins to keep up with what you do throughout the day.” She had a similar opinion about sleep:

Six to seven hours is what I really think I need; eight is great but not really necessary. It’s really about being well-rested; if I wake up the next morning and I still feel tired and I can’t function, I didn’t get enough rest.

When asked about stress management methods, many participants seemed to have positive coping mechanisms. Among the varied answers, exercise, music, talking, and cleaning/organizing were most frequently stated. Blake was unique in his answer but seemed to have a good handle on stress management, “I love outdoors. I go fishing. I live 45 minutes away, so when I go home, I enjoy being in the woods. No screen, no asphalts, no concrete.” Mia handled stress in different ways, “I also take a bath, do a face mask, and hang out with friends.” Some participants preferred meditation, but there were equal numbers who had not tried it or did not find it appealing. Some focused on eliminating the stressor itself by just completing the

stressful tasks or making to-do lists. Claiming he has little to no stress, Fred nonchalantly said, “if I have a test next week, I’ll worry about it later.” All but four of the focus group participants seemed to perceive mindfulness as something to which they aspired; however, their behaviors illustrated most of them continue to struggle with this. Some students also used relatively negative stress coping methods, such as eating, crying, screen time, and drinking alcohol. Two participants confessed their struggles with depression and anxiety, and three expressed their need to find more positive methods to deal with stress.

### **Irregularity Due to Busy Schedules**

All but four participants in this study identified themselves as at least moderately healthy eaters, but a quarter of the participants mentioned their diet is often compromised due to stress or busy schedules. For example, Elly stated, “I try to eat as healthy as possible, but when I have a bunch of exams one week, I kind of just eat whatever’s available and whenever I have a chance.” And Jisoo indicated having little time to eat due to his class schedule: “I don’t think I’m a healthy eater because especially my schedule right now, on Tuesdays and Thursdays, I have five classes back-to-back, so it’s a lot. I eat a lot before and after classes.”

About half of the participants had sleep schedules characterized by irregularity and insufficiency. June was a good example of this:

If I don’t have anything the next day, I’ll probably sleep for the next 12 to 14 hours, and I’ll still be tired. If I have something to do that night, I’ll probably get two to three hours of sleep; I’ll be fine the next morning but tired throughout the day. There’s a constant irregularity in my sleep.

Many participants tried to supplement insufficient sleep with naps. For example, Jackie admitted, “but every afternoon, I take a nap for usually about one-and-a-half to two hours. Sometimes it would turn into four hours by accident, but usually two hours. But I feel rested.” Others used “power naps” to make up for insufficient sleep. Bhoochie hypothesized, “I think power napping is necessary for restoring your sleep cycle and kind of gets you back into the zone so to speak, because it just provides a caffeine boost.”

Others were too anxious to take naps because of their busy schedule. Elly expressed, “I get nervous when I’m idle for too long. Because I feel like there is something I need to be doing, and I don’t know what it is.” Two participants suffered from diagnosed sleep disorders, several knew they lacked sufficient sleep, and others noted they did not sleep much but “felt fine.” The information sources that some participants used to obtain sleep-related information were medical professionals, mobile apps, documentaries, and academic papers.

## **Skepticism**

Participants expressed skepticism about multivitamins and whether they are effective due to conflicting viewpoints and research results. Ben commented that “multivitamins are kind of like placebos,” confirming that he has never regularly used them. A few participants even perceived certain vitamins as harmful, such as Taj stating, “the FDA doesn’t even regulate supplements.” Some participants asserted the importance of well-balanced meals over supplements by stating, “vitamins must come from food” and “it’s better to just think of [dietary supplements] as complement[s] rather than supplement[s].”

Others were skeptical not to be swayed by different packaging methods as Hannah expressed aggravation with nutrition labeling, “I find it frustrating that the percentage values ... are based on an assumed serving size. I often have to get out my calculator to do the comparisons.” There was also skepticism about phrasing on the package’s front since some products often include certain phrases “to make the price higher,” as Peter suggested.

Most participants acknowledged that online resources related to health and wellness are subject to bias and inaccuracy and had skeptical perceptions about them. Rachel said, “nowadays, you have to look at who funded this. And there’s so much involvement with the government and the foods and stuff ... it’s so hard as an average consumer to not fall for it.” Taj also stated:

Generally speaking, I don’t trust information coming from many sources. ... I’m very mindful of who I actually listen to ... when I read some articles, I feel like I can see through façades ... when it’s false information, exaggerated propaganda. ... Nowadays, people just put whatever they want to on the internet. I think you’re responsible for what type of information you take on and digest.

Related to the research question about how educated, healthy, young adults acquire health-related information, some participants in this group said they regularly used the internet for food blogs or YouTube for recipes. Others displayed more active information-seeking behaviors, such as reading academic papers and legitimate online sources, as described above. Some were passive and did not seek out any information. The more passive participants identified hard-to-miss pieces of information such as informational posters and napkin holders placed around university dining halls.

## **Importance of Education**

Many participants seemed to have a good grasp on the legitimacy of health-related information sources. Their foundations of health-related knowledge have been rooted in their elementary education, affirmed through easily accessible sources such as informational posters or table tents in school dining halls, and often further developed through college courses in consumerism, health, or nutrition. Some were naturally introduced and exposed to different news reports and

current events due to their academic majors, such as agricultural economics, food science, or environmental economics, and had developed familiarity and critical viewpoints. Dane said, “my major is ag econ, so we have to break down a lot of news reports, and journalism techniques, [the] type of viewer. ... They just use buzzwords and skewed outlooks.”

Several used well-informed search techniques, such as reading academic papers, to learn about health and wellness. For example, Siwa informed the group, “I go online, and I do try to see that it’s from a credited physician, doctor, or researcher. I look at the source as well to see if it’s credible or not.” Sam said, “I would read .org, .gov websites and then science magazines because there are a lot of science magazines that post articles about different protein sources.” Due to research she was currently doing, Melissa used a “combination of going into literature...doing my fair share of searching the information online because of the audience I have access to, just talking to people in particular fields of work.” Some depended on the advice of friends and family or health professionals such as physicians and registered dietitians and incorporated this advice into their behaviors.

### Discussion

So, how do educated, healthy, young adults acquire health-related information? In this study, the educated, healthy, young adults were fairly sophisticated consumers related to their information seeking for health and wellness resources. They were mostly educated or well-informed about general dietary and physical health, legitimacy of scientific versus non-scientific online resources, and current health-related news, including different products, ingredients, and media trends. The participants in this study had high health literacy (Longo et al., 2010) and were likely “empowered” consumers as defined by Korp (2005). The findings in this research counter previous research findings that consumers prioritize accessibility and understandability of information over accuracy or validity (Longo et al., 2010), but probably because this was an educated audience. For instance, it was observed that students were cautious with the use of eHealth portals. As may be a sign of the times we are currently living in and now inherent in this generation, many participants had skepticism and distrust of information, often regardless of the source. However, considering the sample consisted of college students, examining the general public’s skepticism level would be necessary for policymakers to develop efficient educational resources on the legitimacy of health-related information.

What are the perceptions of health and wellness, and in what health and wellness behaviors do educated, healthy, young adults engage? Exceeding the researchers’ expectations, the majority of participants were mature and well informed about their health perceptions, attitudes, and behaviors. Most of these students perceived themselves as having achieved balance and moderation in their health- and wellness-related actions, especially regarding exercise and diet. These young adults also listened to their bodies and paid attention to what their bodies needed. Through behaviors such as “having a healthy relationship with food” and being “mindful” about their overall wellness, these young adults were treating their bodies as a synergistic, integrative

system influenced by the environment around them, thus supporting the human eco-system theory (Nickols, 2003). Their highly rated self-rated health and their actual health seemed to agree overall. However, the gap between the “information rich” and “information poor” students (Korp, 2005) was occasionally observed as some students did not actively seek health-related information from legitimate sources.

The theme of “balance and moderation” came up repeatedly in the conversations about health and wellness. These educated, healthy, young focus group participants displayed balanced, moderate perceptions toward diet, exercise, sleep, stress management, and social life. Their behaviors in these health and wellness areas also demonstrated moderation and balance.

Most of these students seemed to have a perception of what was healthy versus unhealthy but were not extreme in their behaviors toward these foods or ingredients. A theme emerged of prioritizing adding more “healthy” items to their daily routines and minimizing, but not necessarily completely avoiding, some of the less healthy items. This theme was labeled “emphasizing healthy while reducing unhealthy.”

Students in this study used healthy more than unhealthy stress management techniques, but this was also an area where even the healthiest in the group admitted they could use improvement. There was a misunderstanding of meditation in that those opposed to it thought they were just not good at sitting still. It was difficult to gauge the students’ overall mental health status, as its stigmatization in certain racial groups and the increase in students seeking professional help observed in previous studies were not apparent from the focus group.

College students typically find themselves under much stress. The American College Health Association (ACHA, 2019) reported that 75.9% of college students reported moderate to high stress levels in the last 12 months. Participants in this research also expressed stress but knew of positive ways to deal with it. Regardless of whether they were appropriately dealing with stress, these students seemed to be mindful of what they could or should be doing to cope.

Questions regarding sleep and stress management showed varied results. While some participants took active measures to make sure they were acquiring what is considered an adequate amount of sleep each night, others had irregular or insufficient sleep patterns due to busy college life or sleeping disorders. A few admitted to regularly getting only two to four hours of sleep per night. Naps ranged from some who took two- to three-hour naps to those who took 10 to 20 minute “power naps” to “restore [their] sleep cycle” and recover from the accumulated sleep debt. A few were anxious in their nap-taking because they valued constant productivity over getting more rest. Although they did not get enough sleep, a few participants reported the physical capacity to function well throughout their day and even achieving more by making good use of the extra time in hand. The poor sleeping patterns of college students demonstrated by previous research (with 61.9% indicating their total sleep quality as “poor” by

Becker et al., 2018) also shows consistency with our results, suggesting that sleep was the health area the participants knew the least about and struggled with the most.

Compared to the majority of the focus group participants' generally healthy responses to other questions, the responses related to healthy or enough sleep were much less consistent. This inconsistency might be attributed to the sample's common characteristic of being college students. The theme of "irregularly due to busy schedules" emerged from the responses.

A theme of skepticism emerged from the research question about how educated, healthy, young adults acquire health-related information and their perceptions of health and wellness. Several engaged in active information seeking from legitimate sources due to this skepticism. These young adults seemed aware that misinformation around health and wellness claims was pervasive and behaved to protect themselves from potential harm.

Due to the complexity and sometimes inaccuracy of health and wellness information available to consumers, it was expected that even these educated, healthy, young adults would be confused about information available to them in these areas and that they would be engaging in unbalanced or perhaps extreme health-related behaviors. However, the individuals in these focus groups, for the most part, were well informed about health and wellness and balanced in their approach to diet and exercise. Sleep and stress management are the two areas where this audience needs more education and guidance.

Similar responses informed a theme about the importance of education. These responses also further answer the research question about how these young adults acquire health-related information. Each student's major and the courses they had taken may have influenced their answers. The focus group participants included two nutritional sciences, two environmental sciences, one food science, one dietetics, and one advertising major. Students in these majors would most likely have a general interest in the relevant topics and have been exposed to the academic literature. It is also possible the more senior-level college students are at an advantage as consumers since they may have learned how to do research and where to search for relevant information in their classes. A recent study found that faculty consistently ranked juniors and seniors higher than freshmen and sophomores in their information skills such as search strategy, finding resources, differentiating source types, evaluating sources, and citing sources (Huddleston et al., 2019).

This research provides a first step into understanding how young adults determine valid health information and apply it to their lives. In the current climate of misinformation, lack of trust of authoritative sources, and a major public health crisis (e.g., the COVID-19 pandemic), this topic is of great importance.

## Limitations

Due to the nature of focus group interviews, some limitations include possible lack of depth or fidelity of the responses, especially on sensitive topics such as mental health. A reporting bias may have occurred because participants filled out two surveys on different platforms and were surrounded by other supposedly healthy individuals during the discussions. Some questions were asked inconsistently among different groups because of the direction of the discussions. Because of the order in which the questions were asked, some participants interpreted certain questions differently than the researchers' intentions. Not all pillars of wellness were clearly observed due to the generalized questions. Also, the five groups varied in size and were slightly different from the university population's demographic makeup as a whole. The agriculture/environmental sciences college was overrepresented in the sample and may have skewed the data. These students' intrinsic interests in the wide-ranging wellness topics seemed to have encouraged their participation in this study. It is also worth noting that because the participants were purposely pre-screened as "healthy" overall, there was no reference point for comparison, such as less healthy or older participants.

## Implications for Research and Practice

Future research should be conducted using a larger, more representative sample allowing researchers to stratify respondents by self-reported health status to understand better any differences in health perceptions, behaviors, and information seeking between healthy and unhealthy adults of different ages. This larger, more representative sample should also more specifically address the link between information sources and health perceptions and behavior.

Because irregular sleep patterns were revealed as an issue for many of the otherwise healthy young adults, this should be further investigated. Having a busy schedule was a commonly identified hindrance to a healthy sleep schedule. Thus, colleges and education policymakers should increase awareness of the problem and investigate strategies for lightening the academic or financial burden to encourage healthy sleeping. FCS educators in high school and college, as well as 4-H educators and Extension professionals, can teach good sleep hygiene by using resources such as the "Sleep: As Important as Diet and Exercise for all Ages" Extension publication (Elmore-Staton, 2017). Healthy sleep habits such as: going to bed and getting up at the same time each night; keeping one's bedroom cool, quiet, and dark; removing electronics from the bedroom; refraining from caffeine, alcohol, or large meals before bedtime; and being physically active during the day (Centers for Disease Control and Prevention [CDC], 2016) can be advocated.

Stress management was also an issue for many of the young adults in this study. Colleges and universities nationwide are starting to focus on mental health services for students and should continue to do so. This is especially pertinent given the increased anxiety and depression reported by young adults due to the COVID-19 pandemic (NCHS, 2020).

All components of well-being should be taken into account in FCS and Extension educational programming. However, sleep and stress management techniques may be two areas for researchers and educators to focus on moving forward. Additionally, education about legitimate sources of information available would help consumers in all age groups, as there is confusion about best practices in all areas related to health and wellness, even among the most educated and healthy subgroups.

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