

Examining Student Wellness for the Development of Campus-Based Wellness Programs

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ABSTRACT

Background: Despite the many campus-based wellness programs and services offered through entities such as student services, many U.S. students lack the strategies, skills, or support systems to manage stress or change pre-existing behaviors, resulting in unhealthy behaviors and poor overall wellness. Since patterns developed during this time can form a solid foundation for future health behaviors, there is a need to develop and design wellness programs that stimulate positive health-behavior change.

Aim: The purpose of this study was to assess student wellness of college students at a four-year public university to inform campus-based health programs, events, and services.

Methods: An anonymous, single-structured survey was administered at an on-campus event ($N = 225$). The instrument covered six dimensions of wellness: physical wellness, social wellness, intellectual wellness, emotional wellness, spiritual wellness, and environmental wellness.

Results: Significant differences for gender were found in the dimensions of social wellness, emotional wellness, and physical wellness. Females reported higher levels of social and emotional wellness, while males reported higher levels of physical wellness. Differences in age for emotional wellness, and year of study for physical wellness were also found.

Conclusions: Findings provide insight to direct interventions and programs that would enhance students' wellness knowledge and behaviors.

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College provides an ideal environment to shape students' health behaviors (Coxey, 2018; Dubois, 2006). Students are away from home, surrounded by different individuals, lifestyles, and support groups (Harmon, Forthofer, Bantum, & Nigg, 2016), and they are responsible for their own health and well-being, potentially for the first time (Ridner, Newton, Staten, Crawford, & Hall, 2016).

Since patterns developed during this time can form a solid foundation for people's future health behaviors (Ridner et al., 2016), many colleges and universities require students to take a wellness course during their degree programs. Such programs are shown to increase students' knowledge on lifetime wellness topics and stimulate positive health-behavior change (Lockwood & Wohl, 2012; McCormick & Lockwood, 2006). In addition to these courses, most institutions offer a variety of campus-based health programs through counseling centers, health centers, and related entities such as student services. These units offer frequent events tailored to specific subpopulations (e.g., year of



study, gender, sexual orientation), on a particular health topic (e.g., smoking, vaping, drinking). The programs are designed to improve students' physical and mental health (Slavin, Schindler, & Chibnall, 2014), promote psychosocial and stress management techniques (Conley, Travers, & Bryant, 2013), decrease depression and anxiety (Dvořáková et al., 2017), and develop positive health behaviors to enhance students' quality of life (Baldwin, Towler, Oliver, & Datta, 2017). For example, participation in a mindfulness-based program has been shown to increase first-year college students' life satisfaction, and decrease their depression and anxiety (Dvořáková et al., 2017).

While college can be a time to adopt positive health behaviors, it can also be a time for students to develop negative habits that may affect their well-being and contribute to chronic diseases later in life (Lederer & Oswalt, 2017). Students report high levels of alcohol and tobacco use (Mallett et al., 2013; Ridner et al., 2016), poor diet (Hudd et al., 2000; LaFountaine, Neisen, & Parsonse, 2006), infrequent physical activity (LaFountaine et al., 2006), increased stress (Hudd et al., 2000), and insufficient sleep (Beauchemin, Gibbs, & Granello, 2018; Ridner et al., 2016). This has resulted in an increase in emotional and behavioral health problems, such as depression, anxiety, and psychological distress (Brunner, Wallace, Reymann, Sellers, & McCabe, 2014; Downs, Alderman, Schneiber, & Swerdlow, 2016). A recent study showed that first-year college students experienced a steep decline in their psychological and social well-being within the first six months of their arrival to campus (Conley, Kirsch, Dickson, & Bryant, 2014). These problems may be attributed to the additional challenges students face, such as increased tuition costs, academic demands, time pressures, and stress from living away from home (Mowbray et al., 2006).

Despite the many campus-based wellness programs and services offered, many U.S. students lack the strategies, skills, or support systems to manage stress or change pre-existing behaviors (Beauchemin et al., 2018; Wharf Higgins, Lauzon, Yew, Bratseth, & McLeod, 2010), resulting in unhealthy behaviors and poor overall wellness (Dubois, 2006). There is a need to continue to develop and design programs that increase students' wellness knowledge and behaviors (Nesbitt, 2012).

Higher education, due to its insulated environment, can provide layers of support not found or readily available in the general community (Downs et al., 2016; Lederer & Oswalt, 2017). There is renewed interest for interventions, research, programs, and policies to assist this population with enhancing their health and wellness skillset (Lederer & Oswalt, 2017). Such programs would help students cultivate healthy behaviors, learn how to address the challenges they face while in higher education (Christianson et al., 2018), and develop healthy skills to prevent chronic diseases later in life (Lederer & Oswalt, 2017; Ridner et al., 2016). Some researchers believe it is the duty of higher education institutions to improve the health of this segment of the population, and is integral to their mission (Lederer & Oswalt, 2017).

For campus-based health and wellness programs to be truly effective, they should incorporate all dimensions of wellness into their programming. Wellness, a conjunction of "well-being" and "wholeness," is an integration of various dimensions (such as physical, spiritual, social, emotional, environmental, occupational, and intellectual), that contribute towards quality of life (Myers, Sweeney, & Witmer, 2000).

Educational and interventional campus-based health services and programs should be tailored to the specific needs of their college student population (Mowbray et al., 2006). Programs should be marketed and communicated effectively, highlighting the scheduled programs, and available services and facilities (Christianson et al., 2018), with the aim of "reaching students who do not present themselves" (Grace, 1997, p.248), thus promoting student participation (Dubois, 2006).

Previous researchers have examined wellness differences between traditional and non-traditional students (Myers & Mobley, 2004), year of study (LaFontaine et al., 2006), gender (Baldwin et al., 2017; LaFontaine, 2009; Wharf Higgins et al., 2010; Stock et al., 2001), institution type (Baldwin et al., 2017), and college athletics (Beauchemin, 2014; LaFontaine, 2009). Such studies have yielded mixed results. Significant differences have been reported for gender. Males are consistently noted to be more physically active compared to females (Baldwin et al., 2017; LaFontaine, 2009; Myers & Mobley, 2004), reported higher levels of wellness, specifically those related to physical, emotional, and social wellness than their female counterparts (Myers & Mobley, 2004), and scored higher in their sense of worth and social relationships compared to females (LaFontaine, 2009). These findings contradict other studies that report females are more knowledgeable and better at practicing health prevention behaviors than their male counterparts (Wharf Higgins et al., 2010; Stock et al., 2001), and experience a greater feeling of belonging due to their social relationships (Baldwin et al., 2017).

Other variables, besides gender, have also produced equivocal results. One study demonstrated an increase in students' level of wellness with class standing (Oleckno & Blacconiere, 1990), while others noted a decline in nutrition and stress management during the first year (LaFontaine et al., 2006). Another showed students attending a liberal arts college were more physically active, compared to those attending a research college (Baldwin et al., 2017); however, the researchers note that these findings could be attributed to gender.

While these studies provide valuable insight into student wellness, the inconsistency of the findings necessitates a need to examine a broad cross-section of students to identify differences in self-perceived levels of wellness, behaviors, or concerns of college students (Quinn, Ghaziri, Mangano, & Thind, 2018). A further understanding of these differences will allow for tailored programs and concentrated marketing efforts (Anderson, 2015), with the purpose of being relevant to student needs and noticeable to students (Christianson et al., 2018). It has been encouraged by researchers to provide additional investigations to contribute, verify, or refute these current findings (Myers & Mobley, 2004). The purpose of this study was to assess the perceived level of wellness of students to guide the development of campus-based health programs and prevention strategies.

METHODS

Subjects from a four-year, public university with approximately 15,000 students in the United States, were invited to participate in an anonymous, single-structured survey about their perceived levels of wellness. To ensure they were reaching a broad cross section of students, the researchers set up a booth during an on-campus event, and students attending the event were asked to complete the survey. The University Institutional Review Board (IRB) approved all procedures and the data collection instrument used in this study.

The subjects were told the purpose of the study and asked their age. Only students 18 years and older were eligible. Participation was voluntary, and no incentive was given. Students that agreed to participate signed the consent form, and were asked to complete the paper survey at an adjoining booth separate from the researchers.

The instrument came from the text adopted by the university's mandatory basic studies academic wellness course (Hopson, Donatelle, & Littrell, 2015). The course is designed to provide knowledge on developing and maintaining personal wellness. At the beginning of the course, students are asked to complete the instrument to assess their current levels of wellness across six dimensions: Physical wellness (e.g., engagement in physical activity, diet, perceptions of body image), social wellness (e.g., meaningful relationships, partaking in social activities), intellectual wellness (e.g.,

time management, reflection on perceptions and behaviors), emotional wellness (e.g., self-opinion, ability to express and handle emotions), spiritual wellness (e.g., faith, appreciation of life), and environmental (e.g., waste reduction and recycling, conscious purchasing). Each dimension contained 10 questions, and each item was scored on a Likert Scale (1 = *never*, 5 = *always*). At the completion of each section, a total score was calculated for that dimension. After completing all sections, students were asked to analyze and summarize their results. The purpose of the activity was to help students identify areas that necessitate a behavioral change to improve their quality of life.

In the present study, the researchers used the identical instrument, with the score calculations and meanings removed. In addition to the survey, the researchers collected demographic information on age, gender, and year of study, to analyze the impact these variables had on student wellness. All data were analyzed using SPSS, version 24.0.

RESULTS

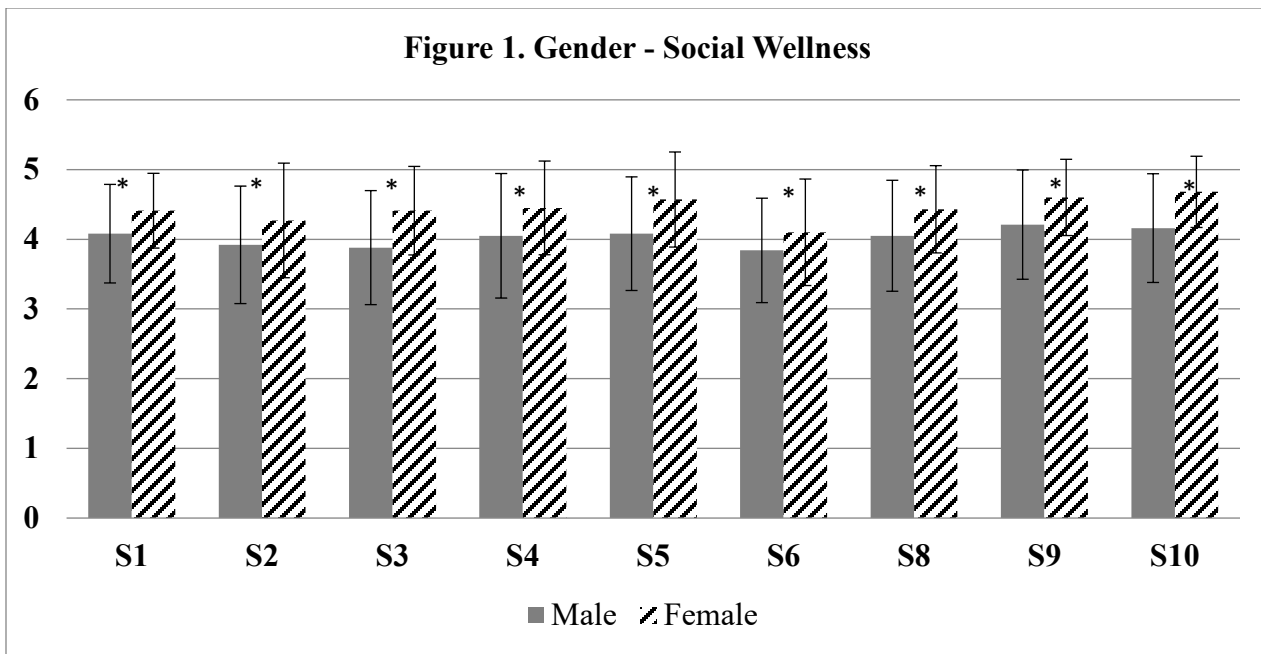
There were 241 completed student surveys. Of these, 16 participants were 25 years or older. As the researchers were interested in only examining traditional college students¹, these cases were removed, resulting in a final number of 225. The sample consisted of 86 males (38%) and 139 females (62%) between 18 and 24 years of age. Of the sample, 46 students were first-year students, 47 students were sophomores, 69 were juniors, 60 were seniors, and four were considered *other* (graduate student or those taking longer than four years to complete their degree).

Six separate univariate ANOVAs were performed, one for each dimension of wellness, utilizing the subjects' total score in each dimension for analysis (e.g., physical wellness, social wellness, intellectual wellness, emotional wellness, spiritual wellness, and environmental wellness). Post-hoc analysis on significant main effects were computed using multiple one-way ANOVAs to elucidate which survey questions contributed to the differences.

Significant differences were found in the dimensions of social wellness (males = 4.03 +/- 0.08; females = 4.39 +/- 0.07; $p = .0001$), emotional wellness (males = 3.70 +/- 0.09; females = 4.02 +/- 0.08; $p = .044$), and physical wellness (males = 3.54 +/- 0.09; females = 3.24 +/- 0.08; $p = .001$) between males and females. Differences in emotional wellness were found based on students age (18 = 4.46 +/- 0.19; 19 = 3.89 +/- 0.11; 20 = 3.97 +/- 0.11; 21 = 3.98 +/- 0.09; 22 = 3.85 +/- 0.14; 23 = 3.41 +/- 0.18; 24 = 3.97 +/- 0.28; $p = .007$), and differences in physical wellness were found based on students year of study (first-year = 3.21 +/- 0.13; Sophomore = 3.29 +/- 0.16; Junior = 3.44 +/- 0.12; Senior = 3.55 +/- 0.09; Other = 2.88 +/- 0.34; $p = .042$). No significant differences were found in the intellectual, spiritual, or environmental wellness dimensions based on age, gender, or year of study. No significant interactions were found between gender, age, or year of study.

Results of the post-hoc analysis on significant main effects of gender and social wellness can be seen in Figure 1. Nine questions were significantly different, with females consistently reporting a higher number (*always* = 5; *often* = 4) compared to males. Five questions were significantly different in the emotional wellness dimension based on gender. As illustrated in Figure 2, females consistently reported a higher number (*always* = 5; *often* = 4) compared to males. Five questions were significantly different in the main effect of gender and physical wellness. As illustrated in Figure 3, males consistently reported a higher number (*always* = 5; *often* = 4) compared to females, except in Question 1.

¹ Students aged 25 or greater are classed as non-traditional (Myers and Mobley, 2004; LaFontaine et al., 2006)



S1. I am open, honest, and get along well with others.

S2. I participate in a wide variety of social activities and enjoy all kinds of people.

S3. I try to be a “better person” and work on behaviors that have caused friction in the past.

S4. I am open and accessible to a loving and responsible relationship.

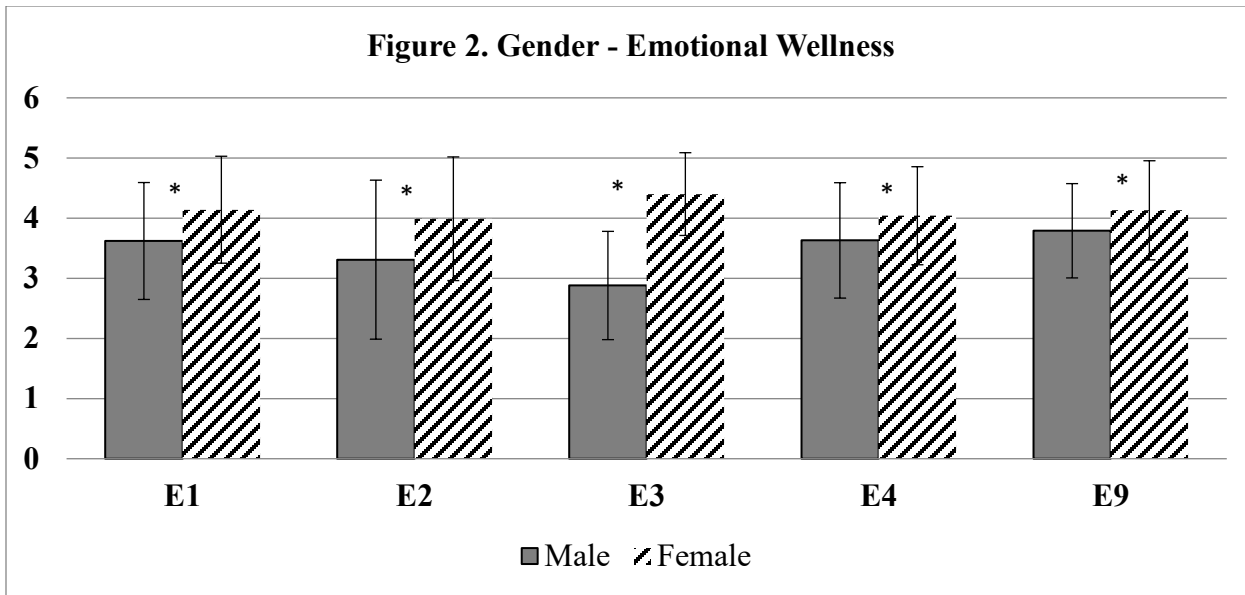
S5. I have someone I can talk to about private feelings.

S6. When I meet people, I feel good about the impression they have of me.

S8. I consider the feelings of others and do not act in hurtful or selfish ways.

S9. I try to see the good in my friends and help them feel good about themselves.

S10. I am good at listening to friends and family who need to talk.



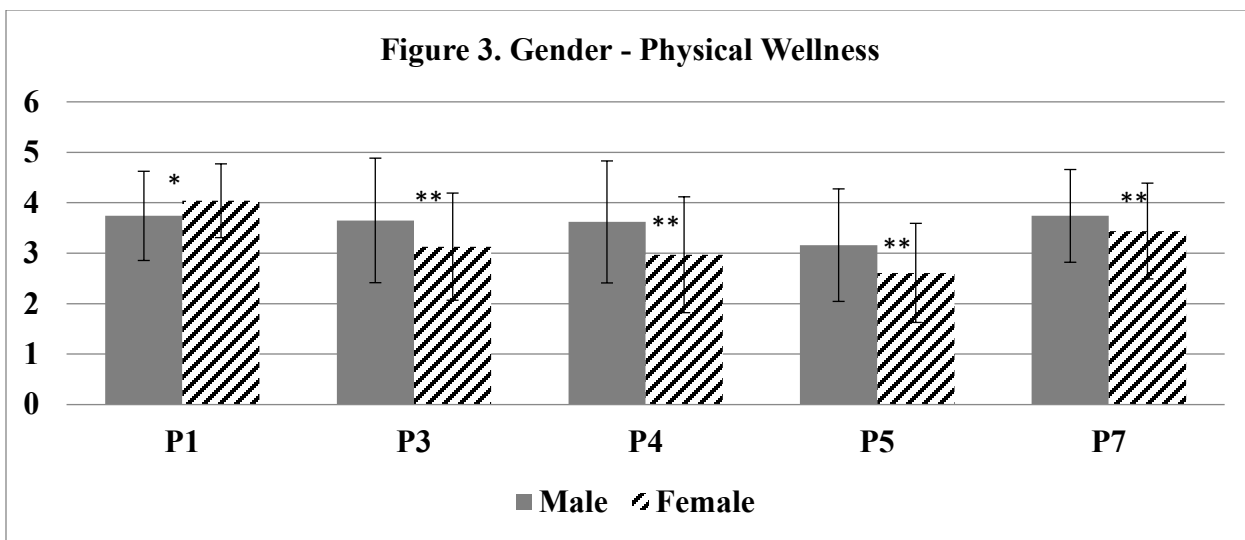
E.1. I find it easy to laugh, cry, and show emotions such as love, fear, and anger and I try to express them in positive ways.

E.2. I avoid using alcohol or drugs as a means to forget my problems or relieve stress

E.3. My friends regard me as a stable, well-adjusted person whom they trust and rely on for support.

E.4. When I am angry, I try to resolve issues in non-hurtful ways rather than stewing about them.

E.9. I try not to be too critical or judgmental of others.



P1. I listen to my body and make adjustments or seek professional help when something is wrong.

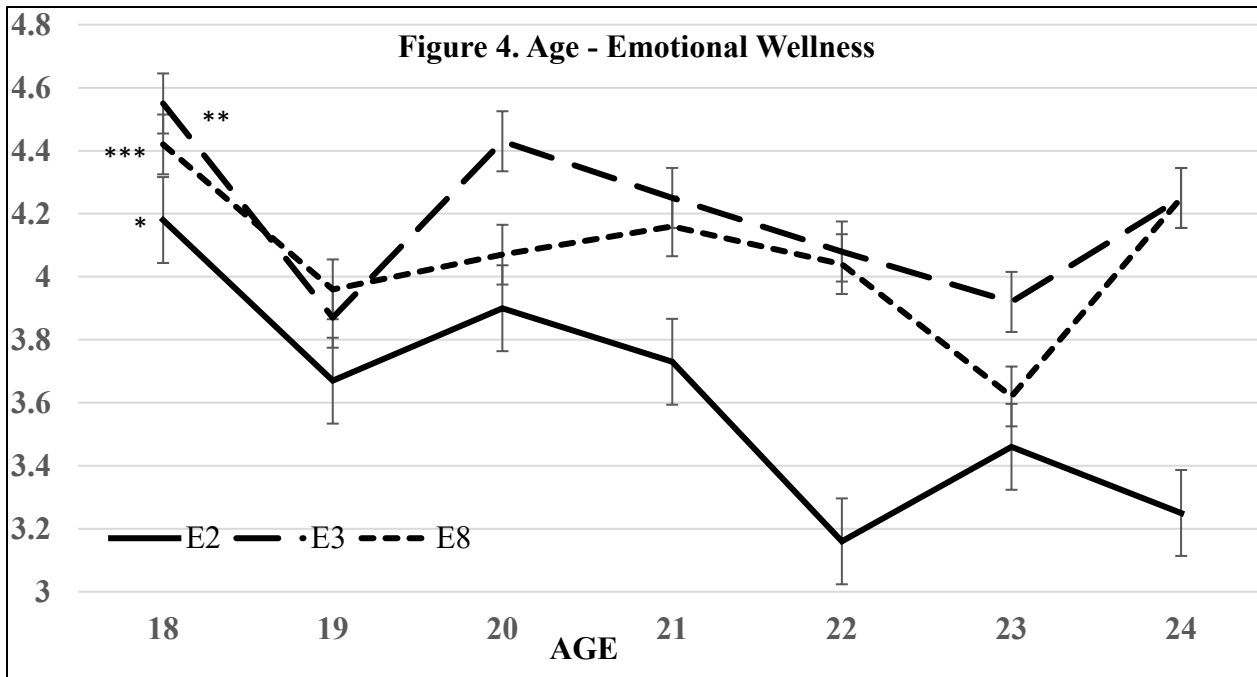
P3. I engage in vigorous exercise three to four times per week.

P4. I do exercise for muscular strength and endurance at least two times per week.

P5. I do stretching and limbering exercised at least five times per week.

P7. I feel good about the condition of my body. I have lots of energy and can get through the day without being overly tired.

Results of the post-hoc analysis on significant main effects of age and emotional wellness can be seen in Figure 4. 18 year olds scored higher in Questions E2, E3, and E8 on the dimension of emotional wellness compared to older students (as seen in the legend of the figure).



* E2. 18 year olds scored significantly higher than 22 year olds.

** E3. 18 and 20 year olds scored significantly higher than 19 year olds.

*** E8. 18 year olds scored significantly higher than 23 year olds.

E.2. I avoid using alcohol or drugs as a means to forget my problems or relieve stress.

E.3. My friends regard me as a stable, well-adjusted person whom they trust and rely on for support.

E.8. I feel good about myself and believe others like me for who I am.

CONCLUSIONS

The purpose of this study was to assess student wellness to inform campus-based health programs, events, and services. The findings revealed differences between gender and social wellness, gender and emotional wellness, and gender and physical wellness. Females scored higher in almost all questions related to social wellness (i.e., nine out of ten questions). Compared to males, female students reported having strong relationships (S4), people to talk to about private feelings (S5), engage in selfless social activities (S9, S10), and feel positive about their relationships and interactions with others (S1, S2, S3, S6, S8). Additionally, female students also scored higher than males in half of the questions related to emotional wellness. Females found it easier to express their emotions, positive or negative, in a health manner (E1, E4), see themselves as stable and non-judgmental (E3, E9), and were less likely to use alcohol or drugs to relieve problems or stress (E2). The results suggest male students have fewer social support systems and meaningful relationships, indicating they have fewer people to talk with when they are stressed and are more likely to

use drugs or alcohol to relieve problems or stress. These findings align with studies that report females enjoy health benefits from their social relationships, and are better at practicing emotional and social prevention behavior strategies than their male counterpart (Baldwin et al., 2017; Wharf Higgins et al., 2010; Stock et al., 2001).

The present study showed males were more active than females, engaging in more aerobic activity, strength and endurance exercises (P3, P4, P5), and had more energy due to their physical condition (P7). These findings are consistent with previous studies that also report males to be more physically active (Baldwin et al., 2017; LaFountaine, 2009; Myers & Mobley, 2004). The only question on which females scored higher was listening to their body and seeking advice if something went wrong (P1). This may be due to the question's close alignment with social or emotional wellness (i.e., interacting with others, following through with feelings).

Differences in age for emotional wellness, and year of study for physical wellness were also shown. A closer analysis of the questions showed that students have a higher level of self-esteem (E8), consider themselves more reliable (E3), and avoid using alcohol or drugs to relieve stress or problems (E8) when they are younger (18 years old), than when they are older (22 or 23 years old). These findings suggest that as students age throughout their schooling, their wellness behaviors decline. This is consistent with those that report a decline in student physiological health and well-being after commencing college (Conley et al., 2014).

These findings highlight the need for specific programs targeting the distinctive needs of males and females, and students of various ages, and can be used to inform and influence campus-based health and wellness programs and marketing efforts. Programs should be developed for males to enhance their social and emotional wellness. For example, sessions that offer strategies or mechanisms to increase or build social support networks, methods for students to share items of stress, or suggestions on healthy alternatives for relieving stress. Additionally, initiatives that encourage females to increase their physical activity levels should be introduced.

While this study was conducted at a mid-size university in the United States, the findings are still of value in particular to the campus where the study was conducted, and to other universities of a similar size and type. It adds to the body of knowledge on student wellness, and the debate on factors that impact student wellness. Due to the important role that campus-based health programs can play in students' lives, and the increase in reported health related concerns, the authors recommended other colleges conduct a general wellness assessment to design and market programs to specific sub-populations and their needs.

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