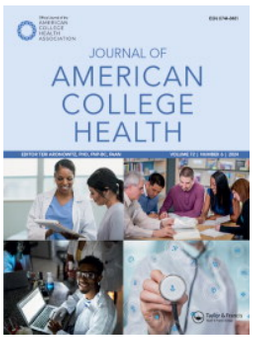

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RESEARCH ARTICLE

Promoting sexual well-being of college students through wellness programs

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ABSTRACT

Objective: Despite a growing emphasis on holistic student wellness in higher education, sexual well-being often remains neglected as part of wellness. We conducted a website content review to assess the broad utilization of wellness models and the specific integration of sexual well-being into wellness programs. **Methods and results:** Targeting 51 flagship and top 50 private institutions, we found that 82.35% of flagships and 64.00% of top private institutions mentioned some form of the wellness model. However, integration of the wellness model into on-campus or local resources varied considerably across institutions. Importantly, only two institutions (both private) addressed sexuality as its own unique dimension of wellness. **Conclusion:** The current study underscores the need for wellness programs to include a focus on sexual well-being. Skills and knowledge that college students learn through wellness programs can help them make better health decisions and improve their quality of life while in college and beyond.

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Higher education; sexual well-being; website content review; wellness model; young adults

More than half of high school graduates in the United States (US) attend college.[1] While attending college, most of these individuals—often referred to as emerging adults (i.e., young adults ages 18–29)[2,3]—are tasked with securing a better sense of who they are, consolidating their identity, and sifting through their beliefs, values, and aspirations.[4,5] As part of this process, each young adult learns how to put the world into perspective, develop skills for adult roles, and begin to make lifestyle choices that have lifelong ramifications.[2,6,7] College also affords young adults new social horizons, including dating, romantic, and sexual relationships. Many young adults become sexually active while attending college if not before,[8] and "hookups" or casual sexual encounters without any commitment to romantic relationships are common among college students.[9,10] However, not everybody engages in safe sex; indeed this age group is at great risk for sexually transmitted infections (STIs)[11,12] and sexual violence victimization.[13] Young adults also consume alcohol in greater frequency and quantity than adolescents,[14,15] and alcohol consumption is associated with greater sexual risk-taking[16] and sexual violence.[17,18]

Given the heightened vulnerability to STIs and sexual violence among this age group, wellness should, by necessity, include sexual well-being, which encompasses a variety of sexuality-/sex-related topics ranging from contraception/methods of protection to consent and sexual violence. However, there is a paucity of information regarding the degree of integration of sexual well-being into broader wellness models. In the current study, we examine the degree to which sexual well-being is integrated into general wellness programs specifically on collegiate campuses. To provide context for why sexual well-being should be an integral part of these efforts, we will briefly discuss the history and conceptualization of wellness. We also incorporate into this discussion the meaning of sexual well-being and its significance in wellness programs tailored for college students.

Approaches to health and wellness

As early as 1948, the World Health Organization (WHO) reconceptualized health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."[19] This conceptualization of health represented a significant shift away from the dominant biomedical approach emphasizing pathophysiology and disease to include a more holistic approach to health. Roughly a decade later, Halbert Dunn[20] popularized the term "wellness," which, similar to the WHO definition, emphasized positive views toward health. During the 1960s and 1970s, the holistic health movement gained prominence in the US and other parts of the Western world, which was largely influenced by Eastern philosophies and practices, such as yoga, meditation, and traditional Chinese medicine.

Although the terms "health" and "wellness" can be used interchangeably, there is a general consensus that wellness focuses more on integration of different dimensions or aspects of health or well-being (e.g., physical, mental, social, spiritual) and balanced lifestyles[21,22] to achieve "a long healthy life."[23] Swarbrick[24] took this model of wellness as a starting point and applied it to mental health recovery. According to Swarbrick, wellness is a deliberate process that involves a person's ability to manage problems, reduce stress, and consciously choose a balanced lifestyle with a goal of engendering optimism, personal control, and health. In the

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original conceptualization, wellness contained six dimensions (e.g., Hettler[25]). Over time, additional dimensions were added, leading to the more common eight-dimensional model used today, which is often referred to as the "wellness wheel."[26] The eight dimensions (incorporating Swarbrick's model) include emotional, financial, social, spiritual, occupational, physical, intellectual, and environmental well-being. Swarbrick's eight-dimension wellness model has since been adapted in various other contexts including college campuses as part of efforts to promote a strengths-based (as opposed to deficit-based) approach to wellness. The Substance Abuse and Mental Health Services Administration (SAMHSA; samhsa.gov) also uses this model to guide their nationwide Wellness Initiative, a federal-wide effort to prevent substance use and mental disorders. Given a variety of sources of chronic stress (e.g., academic, financial, emotional) and greater prevalence of mental health issues among college students, particularly associated with the pandemic,[27] a comprehensive approach to wellness is only logical for colleges and universities today.

Many colleges and universities are aware of the innumerable challenges faced by students and have initiated programs to promote student wellness.[28] The goal of these programs is to provide students with the skills and knowledge to help them navigate their collegiate experience and even beyond. A number of these programs on college campuses have been evaluated with promising results in diverse aspects of wellness, including emotional well-being,[29,30] stress management,[31,32] sleep hygiene,[33] physical activity and fitness,[34,35] substance use,[35,36] and dietary behavior.[37,38] By contrast, a recently published website content review shows that programs that focus on sexual health or well-being are not as readily available in US collegiate settings.[39]

Sexual health and well-being

The WHO states that sexual health is "fundamental to the overall health and well-being of individuals, couples and families, and to the social and economic development of communities and countries" and is defined as "a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity" (https://www.who.int/health-topics/sexual-health and see also the Centers of Disease Control and Prevention [CDC] definition of sexual health: https://www.cdc.gov/sexualhealth). Despite an emphasis on sexual health as part of one's overall health and wellness, campus-wide collective efforts to promote sexual health and platforms for conducting conversations addressing sexuality and sexual health are still very limited on college campuses, particularly at smaller and private institutions, compared to a more extensive focus on sexual violence prevention programs.[39] Given that sexuality plays a significant role in the identity and developmental journey of young adults,[40] it is important to determine how well integrated sexual well-being is into existing wellness frameworks on college campuses.

Prior studies have examined the concept of "sexual well-being," but there is a lack of consensus on its definition.[41] Some researchers conceptualize sexual well-being as a unidimensional construct that is part of overall subjective well-being[42] or subjective sexual satisfaction.[43] Others, on the other hand, propose that sexual well-being is multidimensional including positive emotions about sexuality and sex life, sexual pleasure, sexual self-efficacy and autonomy.[44,45] What has been consistent across studies is that sexual well-being is associated with overall well-being.[46] Moreover, the same literature suggests that sexual well-being is interconnected with various dimensions of wellness, particularly the physical, psychological/mental, and social dimensions, a view that is consistent with the WHO's definition of sexual well-being. In other words, achieving sexual well-being goes beyond taking care of one's sexual health (e.g., having regular gynecological checkups, using contraception that meets one's needs, preventing STIs).

For example, individuals with better physical fitness and health report greater sexual satisfaction and functioning.[47,48] A healthy body image, which can be part of a psychological dimension of wellness, is associated with greater sexual satisfaction, greater sexual assertiveness, greater sexual self-esteem and self-efficacy, and lower risky sexual behavior.[49] Positive personality attributes and affectivity are also associated with the feeling of agency and autonomy in sexual decision-making, whether the decision is to remain chaste or engage in sexual activity.[50] Relatedly, adolescents with lower anxiety and young adults with lower depression report greater sexual satisfaction.[51] Social aspects of wellness, such as relationship satisfaction and relationship stability, are also related to greater sexual satisfaction.[52–54] Given the extensive associations of sexual well-being with other facets of college students' wellness, incorporating sexuality into general wellness models is likely to have positive ripple effects on their happiness, life satisfaction, and quality of life while in college and beyond.

The current study

In order to assess the broad utilization of wellness models and the specific integration of sexual well-being into university student wellness programs, we conducted a website content review involving two types of sizable and reputable universities: 51 flagship universities (representing all 50 states and Washington DC) and top 50 private universities (based on the 2023 US News ranking). Flagship universities are typically the first established in their state and are often land-grant research institutions known for their high academic standards and research rigor. These two types of universities were chosen primarily due to their ample financial resources and relatively large student bodies. Moreover, a recent website content review demonstrated a greater availability of sexual health promotion programs at larger universities compared to smaller ones.[39] Other studies have used website content reviews to examine the availability of information and services related to sexual health[55,56] as well as sexual violence.[57,58] For the current study, conducting a website content review would effectively demonstrate how commonly sexual well-being is integrated into wellness

programing at the largest and most prestigious universities in the US.

Method

Procedure

Two research assistants (RAs) who had experience with website content review were assigned to either 51 flagship or top 50 private institutions of higher education in the US. In searching for any model that incorporates different dimensions of wellness, they were instructed to use a search bar on each school website with the following keywords: "wellness," "well-being," "dimensions of wellness," and "dimensions of well-being." The RAs clicked on any search results that aligned with the current study's focus and further examined the webpage for any potential lead. If they were not able to find anything appropriate using the above keywords, they entered related keywords that might target sexual health promotion. The RAs examined 10–15 websites per week, after which they met with the first author to ensure that the search was thorough and as complete as possible for every single institution based on the information provided by the institutional websites. For all 101 institutions, the RAs and first author resolved any discrepancies through discussions as well as revisiting the web searches together during the meeting. Agreement was reached 100% of the time on whether the institution contained relevant information on their website regarding some type of multidimensional wellness model. All the online searches and meetings were conducted from late fall 2023 to early spring 2024. Supplemental Table 1 provides a list of all 101 institutions examined and their respective URLs, and Supplemental Table 2 provides demographic characteristics for undergraduate students enrolled as of Fall 2022 at each institution. All of the demographic information was drawn from the National Center for Education Statistics website (www.nces.ed.gov/collegenavigator).

The website content review focused on four aspects of each university's utilization of the wellness model: (a) whether the institution refers specifically to a wellness model on their website and, if so, how many dimensions were included in the model, (b) whether the website referencing wellness targets all students or specific groups (e.g., employees, law students, medical students, etc.), (c) the extent to which the model is integrated into the facilities, services, or programs that are offered on campus, and (d) whether any sex- or sexuality-related topics were included anywhere in the wellness model and if so, as its own dimension or as part of another dimension(s). The extent of wellness model integration has three levels (with a higher number representing greater integration): (1) mentioning the model without defining or elaborating on each dimension, (2) defining each dimension but mentioning nothing additional in terms of the institution's incorporation of the model, and (3) providing a list of campus, local, and/or national resources for each dimension. These different levels reflect the degree to which the university has made explicit efforts (thus providing information on their website) to make the wellness model a part of the fabric of the institution's operations and student life.

Results

Utility of wellness model

Table 1 contains the results of the website content review. A majority of flagship universities ($n = 42$; 82.35%) and more

Table 1. Evidence of the wellness model at flagship universities and top 50 private universities.

Wellness model information	Total ($N = 101$)	Institution type	
		51 flagship	Top 50 private
a. Mention of the model[a,b]	74 (73.27%)	42 (82.35%)	32 (64.00%)
3 Dimensions	1 (1.35%)	0	1 (3.13%)
4 Dimensions	2 (2.70%)	0	2 (6.25)
5 Dimensions	2 (2.70%)	0	1 (3.13%)
6 Dimensions	5 (6.76%)	0	5 (15.63%)
7 Dimensions	14 (18.92%)	4 (9.52%)	10 (31.25%)
8 Dimensions	43 (58.11%)	31 (73.81%)	12 (37.50%)
9 Dimensions	6 (8.11%)	5 (11.90%)	1 (3.13%)
10 Dimensions	2 (2.70%)	2 (4.76%)	0
b. Target audience[b]			
All students	46 (62.16%)	26 (61.90%)	20 (62.50%)
Specific groups	28 (37.84%)	16 (38.10%)	12 (37.50%)
c. Model integration[b]			
Mention of the model only	15 (20.27%)	5 (11.90%)	10 (31.25%)
Definitions of dimensions only	16 (21.62%)	13 (30.95%)	3 (9.38%)
List of resources for each dimension	43 (58.11%)	24 (57.14%)	19 (59.38%)
d. Inclusion of sex/sexuality[b,c]			
Not included	40 (54.05%)	23 (54.76%)	17 (53.13%)
Part of physical dimension	17 (22.97%)	14 (33.33%)	9 (28.13%)
Part of emotional dimension	10 (13.51%)	4 (9.52%)	8 (25.00%)
Part of social dimension	3 (4.05%)	4 (9.52%)	5 (15.63%)
Part of cultural dimension	2 (2.70%)	2 (4.76%)	1 (3.13%)
Part of sexual dimension	2 (2.70%)	0	2 (26.19%)

Notes. [a]Percentages on top row are based on 101 total, including 51 flagship and 50 top private institutions. [b]Percentages for each number of dimensions, target audience, model integration, and inclusion of sex/sexuality are based on the total number of institutions that mentioned the wellness model on their websites in some way. [c]The total number of institutions adds up to more than 42 for flagship institutions and 32 for top 50 private institutions as an institution could mention sexuality-related topics in more than one wellness dimension.

than two thirds of top 50 private universities ($n = 32$; 64.00%) mentioned wellness on their website. Among the flagship universities with wellness content on their website, nearly three quarters (73.81%) included eight dimensions of wellness. The average number of dimensions mentioned on flagship university websites was 8.12 ($SD = 0.63$). When the website mentioned eight dimensions, it often referred to the model proposed by Swarbrick consisting of emotional, financial, social, spiritual, occupational, physical, intellectual, and environmental dimensions. For websites mentioning seven dimensions, they either did not mention an environmental dimension (one institution), an occupational dimension (one institution), or a financial dimension (two institutions). Among the websites that mentioned nine dimensions, two institutions added a creative dimension to Swarbrick's eight dimensions, and three added a cultural dimension. For those websites mentioning 10 dimensions, one institution added cultural and creative dimensions to Swarbricks' eight, while another institution added digital and creative dimensions. There were no flagship institutions that included a sexual dimension.

Among the 32 top 50 private institutions that mentioned a wellness model, there was more variability in the number of wellness dimensions being mentioned. Specifically, 12 of them (37.50%) included eight dimensions, 10 institutions (31.25%) included seven dimensions, five institutions (15.63%) included six dimensions, two institutions had four dimensions, and one institution each included three, five, or nine dimensions (3.13%). The average number of dimensions mentioned on top private university websites was 6.91 ($SD = 1.35$). All 12 institutions (except for one) that presented the eight-dimension wellness model on their websites referenced the multidimensional model proposed by Swarbrick. The one exception is Johns Hopkins University, which included eight dimensions with a sexual dimension replacing an intellectual dimension. Among the 19 institutions that mentioned fewer than eight dimensions (ranging from three to seven dimensions), an environmental dimension was not mentioned by 10 institutions, a financial dimension by eight institutions, an occupational dimension by seven institutions, an intellectual dimension by seven institutions, a spiritual dimension by four institutions, and a social dimension by two institutions. Emotional and physical dimensions were never excluded from any of these websites. One institution that included nine dimensions was Georgetown University, which added a sexual dimension to augment Swarbrick's eight-dimensional model.

There was a significant difference between the likelihood of flagship and top private institutions referring to a wellness model on their websites, $\chi^2(1) = 4.34$, $p < .05$, with flagship institutions more likely to mention a wellness model. Moreover, flagship institutions included a significantly higher number of dimensions in the wellness models mentioned on their websites compared to top private universities, $t(72) = 5.06$, $p < .0001$.

Target audience for wellness model

Regarding the target audience, more than 60% of the flagship (61.90%) and the top private universities (62.50%) that mentioned a wellness model on their websites targeted all students on campus. On their respective websites, a wellness model was primarily mentioned on the webpage corresponding to the office/division of student affairs or student life. The remaining universities provided a wellness model for specific groups, including graduate students, medical students, law students, students of living-learning communities, and (benefit-eligible) employees. When the target audience was specific, a wellness model was mentioned on the webpage corresponding to the respective part of the institution. For example, when a wellness model was mentioned for employees, it was often found on the website for Human Resources.

Level of integration of wellness model

Among the 75 institutions that mentioned a wellness model on their websites, more than half of both flagship (57.14%) and top private universities (59.38%) demonstrated the highest level of integration by listing campus, local, and/or national resources related to each dimension of wellness. For example, the University of Massachusetts Amherst provides not only a brief definition of different wellness dimensions but also provides a list of campus resources and hyperlinks to appropriate webpages for more detailed information, such as financial aid services for financial wellness and an academic advising office for academic wellness. Similarly, Boston University provides a comprehensive list of on-campus resources and hyperlinks to those resources on their Student Well-being webpage. In addition, the university provides specific news articles (e.g., Time, the New York Times) or hyperlinks to other websites (e.g., CDC, Cleveland Clinic) pertaining to each dimension. A smaller number of institutions, both flagship and top 50 private, failed to provide information outside of offering a definition of each dimension. Some of the universities did not even provide definitions and only provided a list of different wellness dimensions.

Inclusion of sexuality-related topics in wellness model

Among the 42 flagship universities that mentioned a wellness model on their websites, 23 of them (54.76%) did not include sexuality-related topics anywhere in the model. The remaining 19 flagship universities included some topics related to sexuality or sexual well-being in the model (e.g., sexual health, safe sex, STIs, sexual violence, sexual orientation). Specifically, 14 of them (33.33%) addressed sexuality-related topics in the physical dimension, four (9.52%) in the emotional dimension, four (9.52%) in the social dimension, and two (4.76%) in the cultural dimension. Some institutions covered sexuality in multiple dimensions, resulting in a total exceeding 42 for flagship universities (this also applies to top 50 private universities).

Among the 32 top private universities with a wellness model featured on their websites, over half of them ($n = 17$; 53.13%) did not incorporate content related to sexuality within the model. Two of the remaining 15 top private universities (i.e., Johns Hopkins and Georgetown) included a

sexual dimension in the wellness model, and the rest included content related to sexuality or simply mentioned sexuality-related topics in the physical ($n = 9$; 28.13%), emotional ($n = 8$; 25.00%), social ($n = 5$; 15.63%), or cultural ($n = 1$; 3.13%) dimension. The likelihood of including sex/sexuality-related topics as part of a wellness model was not significantly different between flagship and top 50 private institutions, $\chi^2(1) = 0.02$, $p = 0.89$.

There was a relatively low level of consistency in the types of sexual information included across non-sexual dimensions. In the physical dimension, the listed information typically pertained to safe sex, sexual health, STIs, and occasionally sexual violence and Title IX. The emotional dimension often included information on sexual violence and LGBTQ+ issues. In the social dimension, the information was mostly related to LGBTQ+ issues, sexual violence, and Title IX. In the cultural dimension, the only sexuality information listed pertained to LGBTQ+ issues.

Discussion

The goal of the current study was to examine the degree to which 51 flagship and top 50 private institutions in the US utilize wellness models and the degree to which they integrate sexual well-being into wellness programs offered on college campuses. Our content website review revealed that a majority of the institutions (although flagship institutions more likely than top 50 private institutions) utilized some form of multidimensional wellness model to promote various aspects of student well-being. However, the level of integration of wellness model with on-campus or local resources and programs varied considerably across these institutions. Another main finding is that there was very limited effort to incorporate sexual well-being as one of the dimensions of wellness. Notably, only two institutions (both private) recognized sexual well-being as a distinct dimension within their wellness framework, whereas the remaining institutions included sexuality-related content as part of other dimensions (most commonly physical), overlooking the importance of affording sexual well-being its own dedicated attention.

It is promising to see many institutions recognizing the importance of student wellness and publicly supporting it on their websites. Yet, the great variability in integration levels of the wellness model, even noted among the largest and most resourceful institutions in the US, suggests financial obstacles that some institutions (especially smaller and less resourceful institutions) may find difficult to overcome. Sustaining website content, allocating adequate personnel for developing and delivering wellness initiatives, securing sufficient physical space for implementation, and managing various related tasks all come with significant economic costs. The same issue may also explain our finding regarding the limited incorporation of sexual well-being in the wellness model. Below, we will discuss the importance of integrating sexual well-being into the broader wellness model and explore cost-effective strategies that can be employed to achieve this vital goal.

Sexual well-being as part of holistic wellness

In the current study, we found that many of flagship and top 50 private universities in the US have adopted the general wellness model (mostly commonly reflecting Swarbrick's eight-dimension model). However, more than half of these institutions (both flagship and top 50 private) did not include sexuality-related content anywhere in the model. Even more limited was the number of institutions (i.e., Johns Hopkins and Georgetown) that addressed sexuality as a distinct wellness dimension. This finding is inconsistent with previous work reporting that more than nearly three quarters of flagship institutions and more than half of top 50 private institutions indicated on their websites that they offer sexual health programs.[39] Not only is this somewhat disconcerting given the need for sex education in the college population, but it also raises concerns as it underscores the potential disconnect in how college administrations are addressing linkages between student health and wellness. That is, a majority of colleges and universities do not consider sexual health and well-being as an integral component of a student's overall wellness. This contradicts the fundamental concept suggested by a holistic approach to health and wellness, which advocates addressing diverse aspects of wellness, such as sleep hygiene, diet, mental health, interpersonal relationships, and sexual health, all contributing to an individual's well-being. The current findings suggest that in order to achieve a truly holistic approach to wellness, a paradigm shift is required in how higher education views student wellness. Indeed, as Amaya et al.[59] suggested, the entire institution needs to invest in cultivating "cultures of wellness" and address wellness using a more inclusive social ecological model.[60] The social ecological model prompts different offices and entities of the institution (e.g., office of student affairs, health center, wellness center, intermural facilities, peer health educators, clubs, on-campus residential halls) to work together and approach wellness as an institutional responsibility and service rather than an individual's lifestyle choice.

Strategies to promote sexual well-being on college campuses

Given the well-established link between health/wellness and sexual well-being, the institution-wide approach to health and wellness promotion is likely to favorably influence students' knowledge, awareness, and attitudes toward sexual and reproductive health. It is also likely to encourage students to serve as active advocates for their own as well as peers' sexuality and sexual decision-making. There are several different strategies that have been utilized to successfully promote sexual health and prevent sexual violence, including (a) sexual healthcare on campus, (b) peer educators and bystanders, and (c) library as an integrative learning hub. Each of these strategies is briefly discussed in the context of the current findings.

Sexual healthcare on campus

Many American institutions of higher education offer various sexual healthcare resources to their students on campus,

including condoms and STI/HIV testing. Butler et al.[61] collected responses from health center directors or relevant personnel across 438 institutions in the US. Their findings revealed that close to 90% of these institutions distribute condoms, with student health services being the primary method of distribution. Additionally, peer educators were identified as the most common channel for promoting condom availability. For the behavioral impact of campus condom distribution programs, however, there is lack of consensus. Francis and colleagues[62] found that most students reported being aware of condom dispensers on campus within two months of distribution. More than half of sexually active students reported intentions to use them, and one-third had already done so. On the other hand, Eastman-Mueller and colleagues[63] found no change in actual condom use after installation of condom vending machines in university residence halls. Lack of consistent findings to support the behavioral impact of campus condom distribution may be due to feelings of embarrassment associated with condom acquisition,[64] which is more prevalent among women and individuals who obtained condoms for free and never through purchase.[65] Embarrassment is not the only challenge to overcome; some pragmatic challenges, such as regular maintenance of condom distribution machines, limited funds to support the program, and lack of distribution means, need to be addressed at an institutional level.[63,66]

HIV/STI testing is another sexual healthcare resource that is frequently offered on college campuses, although its prevalence is higher in public and larger institutions.[39] STI testing is not commonly practiced by college students,[67] despite increasingly higher prevalence rates of STIs among young adults.[11] However, when students utilize campus sexual health resources (e.g., taking sexuality/gender classes, being on panels addressing sexual assault/gender/sexual orientation, attending birth control and STI presentations), they are more likely to engage in STI testing.[68] Similarly, college students who utilize healthcare facilities including student health clinics on campus are more likely to have been tested for HIV/STI,[69,70] even when the purpose of their visits to healthcare providers is for physical health problems.[71] Recognizing that access to sexual healthcare services or even general healthcare services alone plays a pivotal role in motivating students to undergo HIV/STI testing, there is a compelling need for colleges and universities to foster a culture that actively promotes sexual health as part of overall wellness. This can be achieved by ensuring the availability of diverse healthcare resources and facilities that promote wellness on campus for students.

Peer educators and bystanders

Another effective method to create a health-promoting campus culture is through peer education. Many institutions utilize peer health educators whose responsibilities include delivering sexual health promotion programs. Peer educators can also be tasked with organizing and leading campus events that promote safe sex. During these events, they can distribute free condoms as well as hold informational sessions on topics relevant to sexual health.[39,61,72] Peer sexual health education for college students has been found to be effective in increasing sexual knowledge, self-efficacy in promoting sexual health, HIV/STI testing, and condom use.[72,73] Its effectiveness may result from the higher levels of communication that transpire between peers.[74] Other strengths of these programs may stem from the desire to obtain instrumental support from each other in sexual decision-making.[75] Moreover, peer educators share personality attributes and hold beliefs and attitudes similar to their peers' and therefore are likely to be viewed as "true peers" rather than educators.[76] Given the cost-effectiveness of peer education programs compared to professional healthcare providers,[77] this type of program may be more sustainable and have wider application for promoting students' sexual behavior and well-being.

There is increasing attention paid to the high prevalence rates of sexual violence on college campuses.[13] In response, a majority of US colleges and universities not only offer but frequently mandate participation in sexual violence prevention programs.[39] These initiatives are commonly known as bystander intervention programs, wherein students are educated on identifying potential signs of sexual assaults among their peers and are equipped with the skills to intervene effectively, thereby preventing such incidents. A recent systematic review of bystander intervention programs demonstrated positive program outcomes, including greater bystander behavior, lower rape myth acceptance, and lower engagement in sexually coercive behaviors.[78] Study findings like this show that sexual violence prevention can be highly successful if students serve as "agents of change" for their college community.[79]

Library as an integrative wellness hub

Traditionally, libraries are thought of as "information commons" providing information resources and technology tools for their users. In more recent years, however, libraries on college campuses have become more than an information commons, serving as a student-centered "learning commons" to address students' needs for wellness in partnership with other campus entities.[26] Academic libraries are often physically located in the center of the campus where they can be readily accessed, offer extended service hours, and have vast physical space to accommodate different student needs (e.g., meeting rooms for projects, quiet spaces for reading, cafes for socializing). These features place libraries in an ideal position to address students' needs and improve their overall wellness.[80,81] There are many examples of how US institutions of higher education have utilized libraries to promote student wellness. For example, the library can have a booth in front of the entrance during the first week of fall semester to welcome students, distribute information about different campus facilities and programs, and help students develop a sense of belonging in a campus community.[81] When students feel like they belong at their school, they are more likely to remain at school, utilize campus services, and exhibit better mental health.[82]

The library can also offer its space, particularly the highly trafficked front lobby, for peer educators to maintain a table or booth. This facility can be used to distribute a campus

map indicating locations of free condom vending machines. Similarly, the booth can provide information about upcoming events or workshops about sexual health, and peer educators can distribute key chains or silicon wristbands preprinted with phone numbers of important campus units such as health centers and Title IX office.[81,83] The physical space is not the only feature that a library can offer; it can also offer social media channels or slideshow screensaver on all computers as well as flyers placed in library bathroom stalls to advertise campus events and workshops.[83] Although these efforts require little to no cost to implement, Bladek[80] emphasized the importance of careful planning and critical evaluation of new wellness initiatives to maximize the use of limited budgetary and staff availability. The planning involves assessing students' well-being needs, identifying services and programs that already exist on campus as well as campus units to partner with, and determining the library role (e.g., leader, participant). After such an initiative is implemented, an evaluation should occur with findings used to make any necessary adjustments including those to implementation, content, and timing that can help the program to better meet student needs.

Limitations and future research

To our knowledge, the current study is the first to provide empirical evidence documenting the considerable variability that exists in terms of how much sexual well-being is incorporated into wellness models at American institutions of higher education. First and foremost, we recognize that there are fundamental challenges impeding the integration of sexuality into higher education wellness models. These can include the political and religious climates that influence colleges and universities. Even though academic freedom and free speech are generally protected in higher education by the First Amendment to the US Constitution, addressing issues such as sexual health, safe sex, and sexual orientation can be complicated at many institutions, especially those with religious affiliations and/or those located in politically conservative states. Given that any information provided on a school website is accessible to everybody, some institutions may hesitate to provide information on how to engage in safe sex, for example, as it implies that the institution and its administration as a whole publicly endorse premarital sex. Future research can conduct qualitative studies to explore how administrators and health promotion professionals at these institutions view sexual health and any challenges that they may encounter or have encountered in providing information and programs related to sexual health.

Another limitation of the current study is that the website content review was restricted to the country's largest and most prestigious institutions, providing limited insight into how smaller institutions integrate sexuality into their wellness initiatives. Our decision to restrict the review to flagship and top 50 private institutions was based on empirical evidence from a recent study[39] demonstrating greater availability of sexual health information and programs at larger institutions. Given that availability of sexual health resources and programs declines as the size of institutions declines, a website content review for smaller institutions that were not included in the current study is likely to reveal scant evidence that sexual wellness is incorporated into the wellness model. However, there is currently no empirical evidence to support this, and more work needs to be done to determine if school size matters, or other contextual factors are more valued in the decision to use wellness models to promote student wellness. As mentioned above, political landscapes and religious affiliations can contribute to variability in both integration of sexual well-being into wellness programs and student utilization of these programs.

Conclusion

College students today are faced with a variety of challenges including mental health issues, struggles with interpersonal relationships, and difficulty navigating the transition to independent living. As a result, many institutions of higher education have adopted various forms of wellness model to address these challenges and improve student wellness. However, as the current study demonstrates, there is tremendous variability in whether and how institutions incorporate sexual well-being in the wellness model and furthermore whether the wellness model is translated into actual events, programs, and campus initiatives that benefit students. In order to create a campus culture that values a holistic approach to student wellness, institutions need to reassess existing resources at various campus units and create effective partnerships with them. When students achieve a high level of various aspects of wellness including sexuality, they will learn the skills of how to lead a holistically healthy life and carry those skills to their adult and professional lives beyond college.

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Ethical approval

As the current study was based on publicly available online information, the IRB issued an exemption for the study.

Author contributions

The website content review was performed by AS. The first draft of the manuscript was written by AS, and both AS and LS contributed to the editing process. Both authors read and approved the final manuscript.

Conflict of interest disclosure

The authors have no conflicts of interest to report. The authors confirm that the research presented in this article met the ethical guidelines, including adherence to the legal requirements, of United States of America and received approval from the Institutional Review Board of Nova Southeastern University.

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Data and code availability statement

The datasets and codes generated for this study are available upon request from the corresponding author.

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