Challenges Faced and Solutions Implemented in Response to the COVID-19 Pandemic among North American College Campus Recreation Staff

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Abstract
The COVID-19 pandemic has had a significant impact on the operation and availability of campus recreation services at North American colleges and universities. This study examined the challenges faced and solutions implemented by campus recreation departments as a result of the COVID-19 pandemic from the perspective of campus recreation staff from across North America. Institution and staff characteristics along with challenges and solutions were collected from 174 campus recreation department staff via an online survey in November 2020. Qualitative data were analyzed using thematic analyses. As a result of the pandemic, campus recreation departments have experienced challenges regarding finances, staffing, student engagement, and health and safety. To address these challenges, departments have limited facility access and capacity, reduced spending, adjusted staffing levels and responsibilities, transitioned to virtual or modified in-person programming, leveraged intrauniversity collaborations, and implemented new health and safety protocols. Solutions have the potential to help institutions meet the needs of students during the pandemic and beyond. Virtual programming and reservation systems may be especially useful post-pandemic, and lessons learned regarding multi-faceted COVID-19 policy enforcement could help advance compliance with other policies, such as harassment.

Keywords
Exercise, resistance training, virtual programming, university, higher education, student engagement.

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Introduction

From the outset, the COVID-19 pandemic impacted the way that North American colleges and universities (i.e., higher education institutions) interact with students to provide them with education and student support services such as campus recreation. Officially declared a pandemic in March of 2020 (World Health Organization, 2020), COVID-19 resulted in a rapid shift from on-campus to remote learning, accompanied by the temporary closure of most campus facilities including residential, educational, and recreational buildings. Although the response of institutions has varied, many followed a similar trend of initial shutdowns in Spring of 2020, followed by re-opening to in-person students in Fall of 2020 with COVID-19 policies and procedures in place. While much attention has been paid to education delivery during this time, less is known about how other student services like campus recreation have been impacted. Given the documented benefits of campus recreation to both students and institutions (e.g., physical and mental health, belonging, retention; Bull et al., 2020; Forrester et al., 2018; Litwiller et al., 2021; Miller, 2011), it is important to understand the challenges experienced by campus recreation departments and the solutions they have implemented to overcome such challenges during the pandemic.

Although there remains limited research on the impacts of the pandemic to campus recreation, existing evidence suggests most campus recreation facilities experienced in-person shutdowns, developed virtual programming, and upon reopening had strict COVID-19 policies in place to help create safe environments for physical activity (Hartmann, 2020; NIRSA, 2020; Popke, 2020). Of utmost concern during facility closures or periods of restricted access was the physical and mental health of college students. As of Spring 2020, over a third of undergraduate students in the United States were classified as overweight or obese, and over half did not meet the weekly physical activity guidelines for both aerobic and muscle-strengthening activities (American College Health Association, 2020). Relative to mental health, nearly three quarters reported a moderate or high level of stress and almost half experienced loneliness (American College Health Association, 2020).

Given this concerning health profile of college students, the physical and mental health benefits of campus recreation are very important. Campus recreation facilities and programs can support students’ physical through facilitating students’ participation in various physical activities (Bull et al., 2020), which is important given many students participate in insufficient levels of both aerobic and muscle-strengthening activities (Wilson, Panza, et al., 2021). They also play an important role in supporting mental health and wellbeing; for instance, campus recreation programs geared toward mental health have been shown to help students to reduce their stress and anxiety (Litwiller et al., 2021). Furthermore, campus recreation facilities and programs are known to support a sense of belonging and connectedness in the university setting (e.g., Miller, 2011), an important means of addressing loneliness among college students.

Although research has yet to document the impact of COVID-19 campus recreation closures on many of the benefits associated with facility use, recent research suggests varied impacts to college student physical activity. One recent study of students who used campus recreation facilities prior to COVID-19 found that most students remained physically active even when their campus facilities were closed (Maire, 2020), while another study found notable declines in physical activity among students who were previously very active (Ramirez & Bernhardt, 2021). Positively, after closures in March 2020, many campus recreation centers in North America re-opened to students between July and September of 2020 (NIRSA, 2021b). In light of campus recreation benefits to both institutions and students, as well as the need for strategies to support students’ physical activity and health, it is important to understand how campus recreation departments have been impacted by and have responded to the pandemic. Thus, the purpose of this study was to examine the challenges faced by campus recreation departments as a result of the COVID-19 pandemic, and the solutions implemented to such challenges by departments from
the perspective of campus recreation staff across NIRSA regions in the United States and Canada.

**Methods**

**Participants and Procedures**

Data for this cross-sectional mixed-methods study were collected using an open-link, Qualtrics (Provo, UT) survey distributed via email by NIRSA on 11/10/20 to campus recreation department staff who were NIRSA members (n = 2,563, 2,556 emails delivered). Follow-up reminders were sent on 11/12 and 11/18. Data collected by the survey covered a range of topics including campus recreation policies, programs, and practices; diversity, equity, and inclusion; and the impact of the pandemic on campus recreation staff/departments. This study focuses exclusively on the impact of the pandemic on campus recreation staff/departments; other data will be reported in forthcoming studies. One hundred seventy-four participants provided responses to at least one of the pandemic related questions and were included in the qualitative analyses for this paper. The Penn State institutional review board approved this study. Informed and voluntary consent was implied through a forced response question following the presentation of the participant information sheet detailing how participant confidentiality and anonymity would be maintained.

**Measures**

**Staff member characteristics.** Participants reported their age, gender identity, race/ethnicity, sexual orientation, current position, and education.

**Institutional characteristics.** Participants reported the following characteristics regarding their institution: state in which it is located, location of their institution (rural vs. non-metro vs. metro), type (i.e., private vs. public and years of undergraduate level education and graduate level education), size, status as a minority serving institution, religious affiliation, and campus recreation membership model.

**Challenges of pandemic.** Participants were asked to “Please describe the greatest challenges your campus recreation department has faced as a result of the COVID-19 pandemic.”

**Solutions to challenges of pandemic.** Participants were asked to “Please describe the solutions that your campus recreation department has implemented to mitigate and/or overcome challenges associated with the COVID-19 pandemic.” Questions for both challenges and solutions were developed by the research team and reviewed by a panel of experts comprising NIRSA’s research committee. Slight refinements were made during the survey review process to improve clarity.

**Data Analyses**

Descriptive statistics were computed using IBM SPSS Statistics Version 26.0 (IBM, Armonk, NY). Thematic analysis was conducted to identify the dominant themes and sub-themes in qualitative data (Braun & Clarke, 2006). Open-ended comments were reviewed and descriptively coded by two researchers independently. Researchers used the constant comparison method to continually reevaluate and revise the codebook during the analysis (Corbin & Strauss, 2014). Disagreements were resolved via a consensus discussion process and triangulation. Upon finalizing the codebook and coding, codes were reduced into themes. Data were analyzed and are presented relative to each question. Trustworthiness was supported through use of well-established methods, trained investigators knowledgeable about campus recreation operations, triangulation of respondent data with emerging practices in campus recreation relative to COVID-19 (e.g., communications or recommendations from NIRSA or other relevant organizations), and participation in/reviewing of analysis by multiple researchers (Shenton, 2004). The authors of this study have prior experience researching topics related to campus recreation, health, and higher education; are familiar with the operations and services of campus recreation departments; and have conducted other recreation-related research during the COVID-19 pandemic. We frequently reflected on our own experiences...
during the pandemic and our role as researchers investigating the perspectives of campus recreation staff. Although we have some shared experiences in common with our participants, we primarily worked remotely in our roles during the pandemic, whereas many of our participants were working in-person and managing many challenges associated with the pandemic.

Results

Participant Characteristics

Nearly 29% of respondents were campus recreation directors, 18% were associate directors, and 21% were assistant directors. Respondents averaged 9 years working in campus recreation (SD = 3.9), 5.8 years working at their current institution (SD = 4.3), and 4.3 years working in their current position (SD = 3.9). An overwhelming majority had a master’s degree or higher. Respondents were closely balanced by male and female genders, a majority were straight/heterosexual, and a majority were non-Hispanic White (Table 1).

Institution Characteristics

A majority of respondents were from public institutions serving both undergraduate and graduate students. All NIRSA regions were represented in the sample and almost half of respondents reported their institution is located in a metro area. The median student population size was 15,000, with an interquartile range of 7,250 to 26,750. Twenty six percent of respondents were from some type of minority serving institution and 11% were from religiously affiliated institutions. A large majority worked at institutions where campus recreation memberships were fully covered by a mandatory student fee. Across all membership models, the average price of a student membership per academic year was $125 (SD = $73.76).

The following sections present results from the qualitative portion of the study. We assigned a Participant ID Number to each respondent, and the accompanying ID number is presented with each representative quote. Institutional characteristics of quoted respondents can be found in Table 3 and correspond to their number in text.

| Table 1. Participant Characteristics. |
|--------------------------------------|
|                                    | n  | %    |
| Current position                   |    |      |
| Director                           | 50 | 28.7 |
| Associate Director                 | 32 | 18.4 |
| Assistant Director                 | 37 | 21.3 |
| Coordinator                        | 43 | 24.7 |
| Supervisor                         | 1  | 0.6  |
| Instructor                         | 0  | 0.0  |
| Other                              | 11 | 6.3  |
| Education                          |    |      |
| Some college                       | 2  | 1.2  |
| Associates degree                  | 0  | 0.0  |
| Bachelors degree                   | 13 | 7.6  |
| Masters degree                     | 145| 84.3 |
| Doctoral degree                    | 12 | 7.0  |
| Gender identity                    |    |      |
| Man or male                        | 94 | 54.3 |
| Woman or female                    | 78 | 45.1 |
| Trans woman                        | 0  | 0.0  |
| Trans man                          | 0  | 0.0  |
| Gender queer                       | 1  | 0.6  |
| Agender                            | 0  | 0.0  |
| Genderfluid                        | 0  | 0.0  |
| Intersex                           | 0  | 0.0  |
| Non-binary                          | 0  | 0.0  |
| Sexual orientation                 |    |      |
| Heterosexual                       | 156| 91.2 |
| Bisexual                           | 5  | 2.9  |
| Gay                                | 1  | 0.6  |
| Lesbian                            | 6  | 3.5  |
| Pansexual                          | 1  | 0.6  |
| Queer                              | 1  | 0.6  |
| Questioning                        | 1  | 0.6  |
| Race/ethnicity                     |    |      |
| American Indian or Native Alaskan  | 4  | 2.3  |
| Asian or Asian American            | 6  | 3.5  |
| Black or African American          | 8  | 4.7  |
| Hispanic or Latinx                 | 7  | 4.1  |
| Middle Eastern/North African (MENA) or Arab Origin | 0 | 0.0 |
| Native Hawaiian or Other Pacific Islander | 0 | 0.0 |
| Native                             |    |      |
| White                              | 144| 83.7 |
| Biracial or Multiracial            | 3  | 1.7  |

Challenges

Themes pertaining to challenges faced by campus recreation departments clustered into those concerning finances, staffing, student engagement, and health and safety.
Finances. Financial challenges (n = 49) primarily included loss of revenue and funding cuts. Loss of revenue was attributed to numerous factors, such as closed facilities and limited facility capacity and programming, inability to collect student fees, and lack of participation from the public (i.e., non-students). One respondent commented: “Financially, we have lost our ability to generate revenue through facility rentals, swim meets, tournaments, etc.” (14). Similarly, another respondent commented how facility closures had impacted their revenue beyond facilities reopening: “Loss of revenue due to closed facilities. We were allowed to reopen, but in October and on a campus that is closed. Many students found alternative work out facilities during this time” (73). Participants who mentioned funding cuts consistently cited cuts and/or freezes to budgets/funding.

Staffing challenges. With respect to staffing (n = 29), respondents primarily discussed student staffing challenges, staff restrictions, and general impacts from the pandemic. As far as student staffing challenges, participants mentioned how the pandemic had impacted campus recreation staff who were students. One commented on the impact of the pandemic on their mental health: “Our student staff are stressed because of their classes and the pandemic in general” (42), and another commented on struggles retaining staff due to the new nature of their responsibilities: “We have had a difficult time retaining students who work here due to the unpleasantness of enforcing mask policies and perception of staying safe” (101). In addition, two participants specifically mentioned challenges regarding repurposing/reallocating staff time/responsibilities; for instance, one person noted: “Workload - many of us received COVID-19 specific responsibilities related to testing, tracing, and data management” (105).

Student engagement. Student engagement (n = 90) relative to changes in programming and lower student participation were large concerns experienced by campus recreation staff. Common comments included those along the lines of: “We keep hearing students want programs but they don’t come to them” (8); “Engaging with students virtually, promoting physical activity from across a screen, identifying what students really need” (98); and, Significantly lower participation in all areas, less interest in any level or type of programming (in-person, virtual, hybrid models)” (15).

Health and safety. There were a variety of topics associated with health and safety (n = 89). Challenges pertained to steps taken with an aim toward protecting health and safety such as

### Table 2. Institution Characteristics.

|                         | n  | %   |
|-------------------------|----|-----|
| **NIRSA region**        |    |     |
| I                       | 35 | 20.4|
| II                      | 39 | 22.6|
| III                     | 25 | 14.4|
| IV                      | 25 | 14.5|
| V                       | 15 | 8.7 |
| VI                      | 30 | 17.4|
| VII                     |  4 |  2.3|
| **Location**            |    |     |
| Metro                   | 82 | 47.1|
| Non-metro               | 56 | 32.2|
| Rural                   | 36 | 20.7|
| **Type**                |    |     |
| Public (2-year undergrad)| 3  | 1.7 |
| Public (4-year undergrad)| 5  | 2.9 |
| Public (4-year undergrad + grad school)| 122 | 70.9|
| Private (2-year undergrad)| 0 | 0.0 |
| Private (4-year undergrad)| 5 | 2.9 |
| Private (4-year undergrad + grad school)| 37 | 21.5|
| **Size**                |    |     |
| Small (<10,000)         | 51 | 32.7|
| Medium (10,000-20,000)  | 49 | 31.4|
| Large (>20,000)         | 56 | 35.9|
| **Minority serving or religiously affiliated status** | | |
| HBCU                    | 2  | 1.3 |
| HSI                     | 26 | 16  |
| TCU                     | 4  | 2.5 |
| Religiously affiliated   | 17 | 10.7|
| Other minority serving institution | 9 | 5.7 |
| **Campus recreation membership model** | | |
| Fully covered by mandatory student fee | 117 | 69.6|
| Partially covered by mandatory student fee | 45 | 26.8|
| Fully user paid         | 6  |  3.6|

Note. NIRSA regions were based of those specified by NIRSA (2021a).
### Table 3. Institutional Characteristics for Quoted Respondents.

| Participant ID Number¹ | Current Position | NIRSA Region | Location | Type | Size² | Minority Serving or Religiously Affiliated | Member Model³ |
|-------------------------|------------------|--------------|----------|------|-------|---------------------------------|--------------|
| 14                      | Assoc. Director  | IV           | Non-Metro | Public 4 yr, UG + G | S | No | FC | PC |
| 73                      | Other            | III          | Metro    | Public 4 yr, UG + G | L | No | - | UP |
| 42                      | Coordinator      | II           | Non-Metro | Public 4 yr, UG + G | L | No | - | FC |
| 101                     | Coordinator      | II           | Non-Metro | Public 4 yr, UG + G | L | No | No | PC |
| 105                     | Director         | II           | Non-Metro | Private 4 yr, UG + G | S | No | No | FC |
| 8                       | Assist. Director | III          | Non-Metro | Private 4 yr, UG + G | S | Relig. | FC | FC |
| 98                      | Assoc. Director  | II           | Metro    | Private 4 yr, UG + G | M | No | No | FC |
| 15                      | Director         | IV           | Metro    | Public 4 yr, UG + G | S | No | HSI | FC |
| 34                      | Assoc. Director  | III          | Non-Metro | Public 4 yr, UG + G | L | No | - | FC |
| 26                      | Coordinator      | IV           | Non-Metro | Public 2 yr, UG | M | No | - | PC |
| 47                      | Assist. Director | V            | Rural    | Public 4 yr, UG + G | M | No | - | FC |
| 103                     | Director         | II           | Rural    | Public 4 yr, UG + G | L | No | No | FC |
| 92                      | Assist. Director | VI           | Rural    | Private 4 yr, UG | L | Relig. | - | - |
| 91                      | Assist. Director | II           | Rural    | Public 4 yr, UG + G | M | No | No | FC |
| 163                     | Assist. Director | II           | Non-Metro | Private 4 yr, UG + G | S | No | - | - |
| 160                     | Coordinator      | I            | Non-Metro | Private 4 yr, UG + G | S | No | No | FC |
| 118                     | Coordinator      | II           | Metro    | Public 4 yr, UG + G | S | - | No | PC |
| 109                     | Director         | III          | Metro    | Public 4 yr, UG + G | S | No | No | FC |
| 102                     | Director         | V            | Rural    | Private 4 yr, UG | M | Relig. | FC | FC |
| 53                      | Assist. Director | III          | Non-Metro | Public 4 yr, UG + G | M | No | No | FC |
| 63                      | Other            | VI           | Metro    | Public 4 yr, UG + G | L | No | HSI | PC |
| 114                     | Coordinator      | III          | Metro    | Public 4 yr, UG + G | L | No | No | FC |
| 6                       | Assoc. Director  | II           | Rural    | Public 4 yr, UG + G | S | No | No | FC |
| 72                      | Coordinator      | I            | Rural    | Public 4 yr, UG + G | S | No | No | PC |
| 15                      | Director         | IV           | Metro    | Public 4 yr, UG + G | S | No | HSI | FC |
| 46                      | Assoc. Director  | II           | Metro    | Public 4 yr, UG + G | S | No | No | FC |
| 38                      | Coordinator      | I            | Metro    | Public 4 yr, UG + G | - | No | No | FC |
| 90                      | Director         | VI           | Non-Metro | Public 4 yr, UG + G | S | No | No | FC |
| 44                      | Coordinator      | VII          | Metro    | Public 4 yr, UG | S | No | No | PC |
| 29                      | Director         | IV           | Metro    | Public 4 yr, UG + G | L | No | HSI | FC |
| 39                      | Coordinator      | VI           | Metro    | Public 4 yr, UG + G | S | No | HSI, TI | FC |
| 13                      | Director         | II           | Metro    | Public 4 yr, UG + G | L | No | No | FC |
| 47                      | Assist. Director | V            | Rural    | Public 4 yr, UG + G | M | No | No | FC |
| 12                      | Assoc. Director  | IV           | Metro    | Public 4 yr, UG + G | L | No | No | FC |
| 154                     | Assist. Director | I            | Metro    | Public 4 yr, UG + G | L | No | No | FC |
| 5                       | Assist. Director | I            | Non-Metro | Public 4 yr, UG | S | No | No | FC |
| 55                      | Assist. Director | IV           | Metro    | Public 4 yr, UG + G | S | No | No | PC |
| 68                      | Coordinator      | III          | Metro    | Public 4 yr, UG + G | M | No | No | FC |
| 43                      | Assist. Director | V            | Metro    | Public 4 yr, UG + G | L | No | No | FC |
| 50                      | Assist. Director | III          | Non-Metro | Public 4 yr, UG + G | S | Relig. | FC | FC |
| 81                      | Coordinator      | IV           | Metro    | - | S | No | - | FC |
| 93                      | Director         | VI           | Metro    | Public 4 yr, UG + G | S | No | No | PC |
| 104                     | Assoc. Director  | III          | Rural    | Public 4 yr, UG + G | M | No | No | PC |
| 11                      | Director         | VI           | Non-Metro | Public 4 yr, UG + G | L | No | No | FC |
| 2                       | Coordinator      | VII          | Non-Metro | Public 4 yr, UG + G | M | Relig. | PC | FC |

¹ This table does not reflect all participants within the sample, just those quoted in text.

² S = Small, M = Medium, L = Large.

³ FC = Fully Covered, PC = Partially Covered, UP = Fully User Paid.

"-" indicates no response.
closing facilities, cleaning and sanitation, distancing/space management, masks/face coverings, enforcement of policies, and frustration with leadership and/or guidelines. General comments regarding health and safety were those along the lines of challenges in “Providing a safe place for all students to enjoy whatever recreational pursuit they want” (34). More specific comments included those such as “Everyone in the facilities is mandated to wear a face covering at all times, perform temperature screenings and health questionnaires prior to entry” (26). Regarding cleaning and distancing, comments reflected challenges such as: “Statewide governor orders for space allocation and cleaning procedures” (47). Comments regarding enforcement related to challenges getting students to adhere to masking and physical distancing: “Getting students to wear them [masks] properly thought their involvement in our programs/use of our facilities” (103). In addition, some respondents also made comments expressing frustration with leadership and/or policies/guidelines. Frustrations were primarily with the university administration and state guidelines, and lack of clarity/communication and consistency, as well as constant changes. For example, one respondent commented: “Changing policy within the state, county, university. [We] base our operations and programming off of those policies, so when they change, we have to change” (92). Another commented on the conflict within universities: “Student Affairs vs. Academic unit conflict over how to navigate COVID and the resulting negative impacts to the university at large that result from various choices,” which is supported by another comment that inferred guidelines varied within the university: “Sometimes the guidelines are not clear or the same from group to group” (91).

**Solutions**

Themes pertaining to solutions implemented by campus recreation departments in response to the pandemic clustered into those concerning adaptations to access and use, spending, adjustments to staffing, program modification, health and safety protocols, and intrauniversity collegiality.

**Adaptations to access and use.** Topics related to access and use (n = 54) included reducing capacity, implementing reservation systems, and limiting or modifying hours of operation. Capacity reductions reflected limits to the number of people who could be in the facility at one time, often a percentage of typical full capacity. This frequently coincided with implementation of reservation systems to pre-schedule times to visit various campus recreation facilities including fitness areas, swim lanes, and climbing walls. For example, one respondent noted: “Reservations for the fitness center have been extremely helpful to limit the amount of patrons that are in our building at a time” (163). Finally, respondents cited reductions to hours of operations, for example, one noted their facility had implemented “Shorter hours to allow for cleaning” (160).

**Spending.** Reductions in spending (n = 10) took numerous forms including budget cuts, delayed capital purchases, and furloughs for staff. For instance, one respondent noted their department had been “Working on budget reductions to protect [their] core mission” (118). While not directly incorporated under this theme, some respondents noted that reallocation of staffing responsibilities helped reduce spending.

**Staffing.** Regarding staffing (n = 39), respondents discussed general staffing changes relative to COVID-19, reallocation of staff responsibilities, and transition to remote work. General staffing changes often reflected hiring new staff for COVID-19-related responsibilities. Additional staff were hired to monitor compliance with COVID-19 policies and to help with enhanced cleaning protocols. For instance, one respondent noted they had “Hired more students to help clean/disinfect” (109). Furthermore, another noted: “A COVID specific leadership position has been created and filled by a recently retired professional to oversee and coordinate the many efforts that exist within units all over campus” (102). In addition to hiring new staff, existing staff’s responsibilities were reallocated to adapt to new COVID-19 procedures. For example, one person commented: “Everyone is working duties outside their normal
reductions in group size and high contact programming, often corresponding with  
individual or small group activities: “Most programs still offered just on a smaller  
scale” (42) and “Still offering programs, just lower attendance and less physical contact”  
(90). Finally, some participants described how programming such as intramural sports and  
group fitness classes was moved outdoors.

Health and safety protocols. Regarding COVID-19 health and safety protocols (n = 109), campus  
recreation staff employed a variety of techniques including facility/equipment re-arrangement/distancing, enhanced cleaning/sanitation, mask policies, communication of adapted procedures and policies, and policy enforcement. Regarding re-arrangement and distancing, participants commonly reported using court and multi-purpose spaces for workout equipment; for instance, one respondent noted they “Utilized courts for weight and cardio equipment” (44). As one person noted, facility layout changes allowed for “The most equipment possible while maintaining physical distancing” (29). Practices such as “Demarcating floors for group exercise to keep zones” (39) helped with social distancing for programming. Enhanced cleaning and sanitation practices were common, including providing hand sanitizer, and having both staff and patrons sanitize equipment between uses. For instance, one person noted: “We have staff clean every piece of equipment between patron uses” (13). Another described the use of “Multiple cleaning devices and new practices in place to encourage a higher level of cleaning” (47).

Participants commonly cited mask policies and mandates in their facilities, with many quotes resembling the likes of: “Masks have to be worn at all times” (12) or “Mask mandate” (154). Only one respondent noted their facility had no mask requirement at the time of the survey: “Not require masks any longer while working out” (5). Respondents discussed communication of new policies and procedures, noting, for example, the use of “Plenty of signage, personal reminders, and more staff monitoring fitness floor activities” (55). One mentioned: “Transparency in safety protocols to recruit members back” (68). Communication often coincided with monitoring and enforcement strategies, particularly for mask policies. For example, one
person noted: “Enforcing face coverings by moni-
toring facility more often” (43). Another stated:  “We just try to enforce the policies as we know
them and be understanding and informative but
firm” (50). Others echoed this strategy as well,
noting consequences to facility users who fail to
comply with policies. For instance, one person
described: “Stressing the importance of following
new rules, asking people to leave our facility if
they cannot follow rules” (81) and another noted
“Not following rules is a conduct violation” (93).

Intrauniversity collegiality. With respect to intrauni-
versity collegiality (n = 12), respondents discussed
how various departments across their universities
have come together to collaborate, coordinate,
partner, and support one another during the pan-
demic. For example, one person noted: “We
work as a team well and collaborate with others
on campus to overcome challenges” (104) and
another noted they have “Come together to
support one another through these difficult times” (11). Other examples of collegiality came in the
form of concern for wellbeing of student staff
(e.g., “We have taken extra time to invest and
check in on our students to see if we can help
them with anything on or off shift,” 101) and financial support from the university for continuation of
student fees (e.g., “Budget support from central
admin for the continuance of student rec fees,” 2).

Discussion
The COVID-19 pandemic has impacted the oper-
ations and delivery of campus recreation at North
American higher education institutions. To date,
most of the evidence on the impact of the
COVID-19 pandemic on campus recreation is
not peer reviewed (e.g., Hartmann, 2020; Popke,
2020), and the few recent empirical studies have
explored only the student perspective on the pan-
demic and campus recreation (e.g., Maire, 2020;
Ramirez & Bernhardt, 2021). The current study
provides evidence of the impact of COVID-19
from the perspective of campus recreation staff,
the individuals who have had to manage campus
recreation facilities and programs during the pan-
demic and have experienced challenges firsthand.
Thus, this population may also be best positioned
to offer insights on effective management strate-
gies and solutions both during and beyond the
pandemic.

Campus recreation departments have experi-
enced challenges regarding finances, staffing,
student engagement, and health and safety. To
address these challenges, departments have
limited facility access and capacity, reduced
spending, adjusted staffing levels and responsibil-
ities, transitioned to virtual or modified in-person
programming, leveraged intrauniversity collabora-
tions, and implemented new health and safety
protocols. These adaptations have enabled campus
recreation departments to continue providing ser-
vices to support students’ physical and mental
health – two important areas of concern during
the pandemic (Meyer et al., 2020; Wilson,
Holland, et al., 2021). Campus recreation profes-
sionals’ adoptions to the pandemic demonstrate
resiliency and creativity. Lessons learned from
doing more with less may help to increase the effi-
ciency of campus recreation departments and
inform cost-effective resource allocation during
the remainder of the pandemic and beyond.
Along similar lines, results of this study highlight
strategies campus recreation departments can
implement both short-term and long-term to
maintain, expand, and even improve student
experiences. Some solutions may be
transient with the pandemic (e.g., masks, social
distancing), while others such as virtual program-
mapping, reservation systems, and experiences with
policy enforcement may reflect more long-term
strategic opportunities for campus recreation.

Virtual Programming
Beyond the pandemic, virtual and asynchro-
nous programming could offer greater flexibili-
ty to students, help expand reach, and
potentially decrease expenses. Such program-
mapping may increase overall accessibility to physical
activity programming, helping individuals to cir-
cumvent common constraints of time, transporta-
tion, and crowding, among others, that can
reduce use of in-person programs and facilities
(Powers et al., 2019; Wilson et al., 2019). Furthermore, quality virtual programming could
become an aspect of campus recreation that
influences student recruitment as other amenities have in the past (e.g., climbing walls). Particularly for campus recreation departments with user paid membership models, financial sustainability relies largely on student interest and selection of campus recreation offerings over other fitness facilities or providers. Continuing virtual programming beyond the pandemic may be a cost-effective means of meeting student interest and demand. Additionally, for smaller colleges and universities or university systems with multiple campuses, virtual programming may increase efficiency and limit duplication of services.

Furthermore, as enrollment in virtual/remote post-secondary education increases (Ginder et al., 2018), campus recreation departments have an opportunity to expand the scope of their services to a growing demographic of students. Given connections between campus recreation, sense of belonging, and retention (e.g., Miller, 2011), universities would be wise to consider expanding campus recreation offerings to remote learners – a population of students for which sense of belonging is both a greater challenge and a key factor in retention (Muljana & Luo, 2019; Peacock et al., 2020). Virtual campus recreation offerings could be used as a tool not just to promote physical activity, but also retention and academic success.

**Reservation Systems**

Facility and equipment reservation systems employed during the pandemic may be valuable beyond their capacity management functions. In response to constraints related to crowding and time management, prior research has advocated for the implementation of technologies which show how crowded various spaces are or what pieces of equipment are available at any given time (Powers et al., 2019). Continuing to use reservations systems for a portion of spaces or pieces of equipment may help individuals to not only navigate crowding constraints, but also plan ahead and prioritize their physical activity and create more opportunities for students less comfortable using certain spaces within facilities (Wilson, Colinear, et al., 2020).

**Policy Enforcement**

During the pandemic, campus recreation staff have had to implement and enforce COVID-19 policies to support the health and safety of their users. Results suggest signage, personal reminders, communication of policy rationale, and frequent monitoring of fitness areas have helped with policy compliance. Many campus recreation departments have other safety-related policies that have traditionally been enforced less, such as those related to harassment (Wilson, Guthrie, et al., 2020). Given the discomfort experienced by some users, often women, in campus recreation facilities due to the behavior of peers, often men (Wilson, Colinear, et al., 2020), enhanced staff and student experiences with policy enforcement and familiarity with consequences of misconduct may be transferrable lessons for creating more inclusive campus recreation facility climates post-pandemic.

**Limitations & Recommendations for Future Research**

This study was cross-sectional and thus reflects perceptions related to COVID-19 among campus recreation professionals at only one point in time during the pandemic. Most responses were from White individuals, and a sample with more professionals who identify as Black, Indigenous, or People of Color (BIPOC) would be advantageous in providing a more complete view of professionals’ experiences during the pandemic. Furthermore, this study collected data via an online survey which had a relatively low response rate. This could be, in part, attributable to the increased demands placed on campus recreation staff during the COVID-19 pandemic, and many people who may have been interested may not have had the time to participate. Moreover, the use of an online survey to collect qualitative data using only two qualitative questions limited the amount and depth of data that could be captured; future research should consider exploring the impacts of COVID-19 with in-depth interviews or focus groups with campus recreation staff. Finally, the study included only NIRSA members and thus represents only a sub population of North American campus recreation staff; future
studies could focus on other geographic contexts or use other sampling methods to obtain responses from professionals who are not NIRSA members.

As knowledge and policies related to COVID-19 and its transmission evolve, campus recreation departments may face new challenges. Future studies should investigate longer-term impacts of COVID-19 on campus recreation and seek to understand new challenges in a post-pandemic context associated with the transition back to more in-person activities. Moreover, examinations of student perceptions of campus recreation during the pandemic, especially relative to use and satisfaction with virtual and asynchronous programs, may help provide direction for future, post-pandemic operations. Finally, assessing student perceptions of campus recreation during COVID-19 relative to other spaces for physical activity may help inform future directions for campus recreation management and promotion.

Conclusion

In summary, campus recreation departments faced many challenges during the COVID-19 pandemic, especially regarding finances, staffing, student engagement, and health and safety. Many departments have developed innovative solutions to the challenges posed by the COVID-19 pandemic including limiting facility access and capacity, limiting spending, adjusting staff responsibilities, developing virtual and modified in-person programming, and implementing new health and safety practices. Findings of this study may assist campus recreation professionals during and beyond the pandemic, offering insightful strategies for increasing reach and reducing barriers to college student physical activity.

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Supplemental Material

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