THE UNIVERSITY OF TENNESSEE KNOXVILLE

Journal of Applied Sport Management

Volume 18 | Issue 1 Article 6

4-30-2026

Toward Greater Wellbeing: Student-Guided Strategies for Improving Sport and Recreation Engagement

Vinu Selvaratnam
Laurentian University, v4selvaratnam@uwaterloo.ca

Laura Wood
University of Waterloo, laura.wood@uwaterloo.ca

Ryan Snelgrove
University of Guelph, snelgror@uoguelph.ca

Recommended Citation

Selvaratnam, Vinu; Wood, Laura; and Snelgrove, Ryan (2026) "Toward Greater Wellbeing: Student-Guided Strategies for Improving Sport and Recreation Engagement," *Journal of Applied Sport Management*: Vol. 18 : Iss. 1.
https://doi.org/10.7290/jasm184ja7
Available at: https://voljournals.utk.edu/jasm/vol18/iss1/6

Journal of Applied Sport Management
https://doi.org/10.7290/jasm184ja7

Vol. 18, No. 1
https://trace.tennessee.edu/jasm/vol18/iss1/6

Toward Greater Wellbeing:

Student-guided Strategies for Improving Sport and Recreation Engagement

Vinu Selvaratnam

Laurentian University

Laura Wood

University of Waterloo

Ryan Snelgrove

University of Guelph

Please send correspondence to Vinu Selvaratnam, VSelvaratnam@laurentian.ca

Abstract

Despite widespread recognition of campus recreation as a key contributor to student well-being, many university students remain underactive, even when programming is available. This study explores student-generated strategies for improving participation in campus recreation, drawing on open-ended responses from 182 undergraduates at a large Canadian university. Using thematic content analysis and chi-square comparison, we examine how suggestions differ between students who report being sufficiently active and those who do not. Seven core themes emerged, with underactive students more likely to identify structural barriers such as inconvenient scheduling, limited facility access, and insufficient communication. These suggestions are interpreted through the Leisure Constraints Model and the concept of constraint negotiation, offering insight into how students envision institutional change. Rather than passive recipients, underactive students articulated concrete strategies for engagement, highlighting the need for responsive programming that aligns with student-identified needs. The findings support a shift toward inclusive scheduling, targeted promotion, and participatory planning as mechanisms for increasing equity in campus recreation. Implications for theory, policy, and practice are discussed.

Keywords: leisure constraints model, constraint negotiation, physical activity, sports

University recreation programs are widely regarded as important contributors to student well-being, offering opportunities to improve physical health, reduce stress, and foster social connections (Ellis et al., 2002; Kirby et al., 2024; Snelgrove et al., 2022; Wood & Danylchuk, 2015). Moreover, these programs represent a significant sector within the broader sport industry. As managers of complex multiuse facilities, these departments face operational challenges identical to those in the commercial and community sport sectors. Examples include maximizing facility utilization, effectively marketing to diverse consumer segments, and retaining participants.

These programs are also positioned as strategic tools for advancing institutional priorities related to student engagement, wellness, and retention. Despite the breadth of offerings on many campuses, participation rates remain lower than expected. Prior research has found that between 40% and 50% of college students are physically inactive, even when they have access to campus-based fitness and wellness resources (Keating et al., 2005). This persistent gap between opportunity and engagement suggests that the availability of programs alone is insufficient to generate meaningful levels of participation (Wilson et al., 2023).

Existing studies on student participation in campus recreation have tended to focus on identifying constraints that limit involvement, such as time pressures, academic demands, and motivational factors (Arzu et al., 2006; Hoang et al., 2016; Kim, 2024; Kulavic et al., 2013; Selvaratnam et al., 2021; Wilson et al., 2021; Wood & Danylchuk, 2015). While these studies have offered valuable insights, they often rely on closed-ended survey instruments that assume a fixed set of relevant barriers. This limits students' ability to express how they personally experience and interpret the challenges they face. Even segmentation research, such as Kim's (2024) analysis of constraint and motive profiles, cannot fully capture the diversity of student experiences when responses are limited to predefined categories. Consequently, much of the current literature reinforces existing theoretical models without creating space for new or context-specific understandings of constraint.

To address this limitation, the current study examines open-ended survey responses from university students who were asked what campus recreation departments could do to increase their participation. These student-generated suggestions offer insight into how students make sense of their campus recreation environments and what kinds of changes they believe would help them become more active. In contrast to closed-response surveys, this approach centers student voice and provides a more grounded perspective on how structural, social, and personal barriers intersect with institutional design.

Theoretical Framework

This study is informed by the Leisure Constraints Model (Crawford et al., 1991) and the related concept of constraint negotiation (Hubbard & Mannell, 2001), which together provide a framework for understanding how students experience and respond to barriers to participation in campus recreation. The Leisure Constraints Model organizes constraints into three general categories: intrapersonal constraints, interpersonal constraints, and structural constraints. Intrapersonal constraints refer to internal states such as lack of motivation or low self-confidence. Interpersonal constraints involve challenges that arise from social interactions, such as the absence of a workout partner or fear of judgment. Structural constraints

include external factors such as scheduling conflicts, limited program awareness, or inadequate access to facilities. Among university students, structural constraints have been identified as particularly persistent, especially when they reflect how institutional design limits students' ability to participate (Gyurcsik et al., 2004).

While the LCM traditionally views preference as a precursor to participation, suggestions related to specific activity types or program styles (e.g., requests for gamification or specific sports) are conceptualized in this study as efforts to negotiate intrapersonal constraints. By requesting more engaging or specific content, students are addressing internal barriers related to motivation, interest, and enjoyment.

Moreover, although the LCM has provided a useful foundation for categorizing constraints, most applications of the model rely on quantitative surveys that do not fully account for how individuals themselves understand or prioritize the barriers they face. When researchers impose predefined categories, they risk missing context-specific interpretations of constraint or overlooking ways that constraints are actively negotiated. For this reason, the present study also draws on the concept of constraint negotiation, which emphasizes that individuals do not simply encounter barriers passively but often attempt to work around them, adapt their goals, or seek support in order to participate (Hubbard & Mannell, 2001).

In the context of this study, students' open-ended suggestions are interpreted as reflections of how they negotiate constraints. When students describe changes to scheduling, communication, or facility access, they are articulating not only what stands in their way but also what might enable them to participate more fully. By focusing on student-generated ideas for change, this study sheds light on the ways students envision more inclusive and responsive recreation environments. It also highlights the importance of structural supports in enabling participation, particularly for those who currently feel underactive.

This combined framework allows for a deeper analysis of both the types of constraints students face and the kinds of institutional changes they believe would make a difference. Rather than categorizing students based on static barriers, the study focuses on how students define their own challenges and propose actionable solutions. In doing so, it provides a more dynamic and student-centered understanding of campus recreation participation. The following research questions guided this study:

1. What suggestions do university students offer to help campus recreation departments support more active lifestyles?
2. Do these suggestions differ between students who report being as physically active as they want to be and those who do not?
3. To what extent do student-generated suggestions reflect structural constraints versus intrapersonal motivators and experiential enhancements?

Method

Data Collection

Data were collected via a cross-sectional survey at a large, research-intensive university in Ontario, Canada. Purposive sampling was used to recruit undergraduate students from six courses across Arts, Health, and Science faculties to ensure year-level and disciplinary diversity. A total of 182 students provided usable responses. The sample was 62% women and 34% men, with the majority (91%) identifying as domestic students. Participants completed the survey in person during class time. The instrument

included a closed-ended item to determine activity status ("Are you as physically active as you want to be?"; yes/no) and an open-ended item eliciting structural feedback ("What can [campus] Recreation do to help you be more active?"). The study received approval from the university's Research Ethics Board.

Data Analysis

A mixed-methods approach was used to interpret open-ended suggestions and assess their relationship with activity status. First, open-ended responses underwent thematic content analysis. Two researchers independently coded responses into seven dominant themes representing the primary actionable mechanism (e.g., Program Timing, Facility Improvements). Inter-rater reliability was strong ($\kappa = 0.82$), and disagreements were resolved through consensus. Second, a chi-square test of independence was conducted using SPSS to determine if the frequency of suggestion types differed significantly between students who were sufficiently active and those who were not. This analysis tested whether underactive students were more likely to identify structural constraints compared to their active peers.

Results

A total of 182 usable open-ended responses were thematically coded. Of these, 125 responses were provided by students who reported not being as physically active as they wanted to be (underactive students; 69%), and 57 responses came from students who felt sufficiently active (active students; 31%). Each response was assigned to a single dominant suggestion theme based on its primary focus. Although some responses contained multiple ideas, the coding framework required one primary category to allow for statistical comparison.

While responses were categorized into dominant themes for statistical comparison, it is important to note that many student suggestions were multifaceted. For instance, one student requested, "More evening workout classes that are advertised better," bridging both Program Timing and Awareness. In such cases, the research team coded based on the primary barrier to entry. In this instance, the response was coded as Program Timing because even if the advertising improved, the student could not attend if the class was not in the evening. This qualitative complexity suggests that for many students, constraints are interconnected rather than isolated.

A chi-square test of independence was used to assess whether the distribution of suggestion types differed significantly between underactive and active students. The test revealed a statistically significant association between suggestion type and perceived activity sufficiency, $\chi^2(6) = 49.35$, $p < .001$. Cramér's V was .52, indicating a strong effect size (Hair et al., 2018) and suggesting a meaningful relationship between activity level and the nature of student suggestions.

Specifically, underactive students more frequently proposed changes related to structural constraints, including Facility Improvements (n = 36), Program Timing (n = 31), and Awareness and Promotion (n = 28). In contrast, active students were more likely to suggest individualized enhancements or leave the question blank, indicating fewer perceived structural constraints. Students who reported being as active as they wanted to be were more likely to suggest enhancements targeting intrapersonal needs, such as new challenges, gamified programs, or expanded sport offerings. Active students also submitted a greater proportion of open-ended "Other" responses, which were less focused on structural conditions and

more likely to reflect individualized preferences or ideas for enhancement rather than core access issues.

To confirm the validity of the primary chi-square results and serve as a robustness check against lower frequencies in the Motivation (n = 18), Sports Offerings (n = 14), and Other (n = 13) categories, a supplementary analysis was conducted. We aggregated the seven themes into two broad theoretical domains: Structural Supports (comprising Program Timing, Facility Improvements, and Awareness) and Experiential Enhancements (comprising Motivation, Sports Offerings, Program Variety, and Other). The association between activity level and suggestion type remained statistically significant in this aggregated model ($p < .001$). This confirms that the observed divergence where underactive students prioritize structural access and active students prioritize experiential content is a robust finding despite the smaller cell counts in specific subcategories.

Discussion

This study examined how student-generated suggestions for improving campus recreation differ based on self-perceived activity levels. By analyzing open-ended responses, the findings demonstrate that underactive students do not simply lack motivation; rather, they encounter specific structural constraints such as inconvenient scheduling, overcrowding, and poor communication that inhibit their participation. In contrast, students who feel sufficiently active tend to focus on Motivation and Program Variety.

The findings provide empirical support for the Leisure Constraints Model (LCM), specifically the distinction between structural and intrapersonal barriers. The majority of suggestions from underactive students reflected structural constraints (e.g., *Program Timing, Facility Improvements*), highlighting a misalignment between facility operations and consumer demand. These findings echo Gyurcsik et al. (2004), reinforcing that under-engagement is often the result of modifiable environmental factors rather than individual disinterest. Conversely, active students' suggestions aligned with motivation and incentives (Motivation, Program Variety), suggesting that once structural access is secured, student needs shift toward enjoyment and challenge.

The study extends the LCM by framing these suggestions as a form of external constraint negotiation. Rather than passively accepting barriers, students used the survey to propose actionable changes such as "open earlier" or "fix the air conditioning" to renegotiate the terms of their participation. This supports the view that students are active agents capable of identifying the institutional changes required to support their engagement.

A critical finding was the prominence of Awareness and Promotion as a structural barrier. While prior research often cites time and motivation as primary constraints (Keating et al., 2005), our data suggest that informational inaccessibility reduces students' sense of opportunity. For underactive students, a lack of clear communication acts as a gatekeeper; thus, requests for better advertising are not peripheral but central to accessing the system. This contrasts with active students, whose specific requests imply they have already successfully navigated the information landscape.

These distinct profiles align with Kim's (2024) segmentation of university students but add qualitative depth by revealing how these segments define support differently. While active students may have the resources to adapt or substitute activities, underactive students appear to lack feasible alternatives, making structural institutional support essential. This supports ecological models of health behavior (Sallis et al., 2006), emphasizing that wellness is shaped by the systems within which people operate. Ultimately, this

study suggests that well-intentioned programs fall short when they are not designed with user-defined constraints in mind. As noted by Lower-Hoppe et al. (2020), operational systems determine effectiveness. For campus recreation, this means acknowledging that for the underactive student, the primary barrier is often not the workout itself, but the logistics of accessing the facility.

Practical Implications

The findings of this study offer several actionable insights for sport and campus recreation professionals seeking to enhance accessibility, inclusivity, and student engagement. Specifically, the data suggest that underactive consumers are highly sensitive to facility operations, whereas active consumers are more driven by programming content. This supports a differentiated management approach.

To move beyond generic programming, this study suggests three strategic pivots for sport facility managers aiming to increase market penetration among 'underactive' populations. The first is that managers often schedule facilities based on equality (equal time for all sports), but this study supports scheduling for equity since underactive students identified Program Timing and Facility Access as their primary barriers. To support scheduling for equity, managers can identify low-utilization times (e.g., 6:00 a.m. to 8:00 a.m. or late-night Friday) and dedicate them specifically to "beginner-only" or "low-intensity" operational blocks. Managers can also implement "protected hours" where intimidating spaces (like free weight zones) are reserved for introductory programming, effectively removing the structural barrier of overcrowding/judgment.

The second strategic pivot is a segmented marketing strategy. The data reveals a clear market split: Active students want motivation (gamification, leagues), while Underactive students want information (logistics, access). Generic marketing ("Come to the Gym!") fails because it ignores this split. For the Underactive segment, marketing should be purely informational and instructional (e.g., "How to use a locker," "Walkthrough of the entry process"). For the Active segment, marketing should focus on the experience (e.g., "Beat your PR," "Join the League"). Ultimately, we recommend sport facility managers to not waste resources selling 'fun' to people who are stuck on access.

These findings support a shift from uniform service delivery to strategic resource segmentation. Rather than investing in generic promotional campaigns, facility managers should reallocate resources based on segment-specific needs: experiential enhancements should be targeted toward retaining the active segment, while informational infrastructure such as real-time capacity tracking should be prioritized to help the underactive segment autonomously negotiate structural constraints.

Limitations and Future Research

First, the sample was drawn from a single Canadian university, limiting generalizability. However, this single-site design provided necessary internal control; by holding the structural environment constant (e.g., identical facility hours and equipment), we ensured that observed differences in suggestions were driven by student perception rather than variances in facility quality between institutions. Additionally, the cross-sectional design captures only a snapshot of student sentiment, and the use of a single open-ended item restricts interpretive depth compared to interviews. Finally, the methodological necessity of coding responses into single dominant themes for statistical comparison may obscure the complexity of multifac-

eted constraints.

Future research should prioritize multi-institutional replication to assess the transferability of these findings across different recreation infrastructures. Researchers should also consider longitudinal designs to track how constraint negotiation evolves over time and incorporate in-depth qualitative methods, such as focus groups, to better capture student narratives. Finally, future inquiry should explore how additional identity dimensions, such as gender, cultural background, and disability status, intersect with these structural barriers to shape student engagement.

Conclusion

This study challenges the assumption that student inactivity stems solely from disinterest, demonstrating instead that underactive students encounter tangible, modifiable structural constraints such as limited facility hours and insufficient communication. By interpreting student-generated suggestions as a form of constraint negotiation, the findings reveal that students are active agents capable of identifying the institutional changes required to support their engagement. Ultimately, campus recreation departments must view their operations not as static offerings but as dynamic systems that must evolve to meet these student-defined needs. To foster true equity in campus wellness, sport managers should prioritize inclusive scheduling, targeted outreach, and participatory planning to bridge the gap between opportunity and participation.

References

Arzu, D., Tuzun, E. H., & Eker, L. (2006). Perceived barriers to physical activity in university students. Journal of Sports Science & Medicine, 5(4), 615.

Crawford, D. W., Jackson, E. L., & Godbey, G. (1991). A hierarchical model of leisure constraints. Leisure Sciences, 13(4), 309–320. https://doi.org/10.1080/01490409109513147

Ellis, G. D., Compton, D. M., Tyson, B., & Bohlig, M. (2002). Campus recreation participation, health, and quality of life. Recreational Sports Journal, 26(2), 51–60. https://doi.org/10.1123/rsj.26.2.51

Gyurcsik, N. C., Bray, S. R., & Brittain, D. R. (2004). Coping with barriers to vigorous physical activity during transition to university. Family & Community Health, 27(2), 130–142. https://doi.org/10.1097/00003727-200404000-00006

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2018). Multivariate data analysis (8th ed.). Pearson Prentice Hall.

Hoang T. V., Cardinal B. J., & Newhart D. W. (2016). An exploratory study of ethnic minority students' constraints to and facilitators of engaging in campus recreation. Recreational Sports Journal, 40, 69–81. https://doi.org/10.1123/rsj.2014-0051

Hubbard, J., & Mannell, R. C. (2001). Testing competing models of the leisure constraint negotiation process in a corporate employee recreation setting. Leisure Sciences, 23(3), 145–163. https://doi.org/10.1080/014904001316896846

Keating, X. D., Guan, J., Piñero, J. C., & Bridges, D. M. (2005). A meta-analysis of college students' physical activity behaviors. Journal of American College Health, 54(2), 116–126. https://doi.

org/10.3200/JACH.54.2.116-126

Kim, J. (2024). Constraint-based latent profile analysis to investigate the physical activity market segments among Chinese college students. Journal of Applied Sport Management, 16(2), 2. https://doi.org/10.7290/jasm16qkxc

Kirby, J. B., Lindsay, K. G., Visscher, L. E., Townsend, R., Stellino, M. B., & Kulakowski, E. (2024). Impact of a peer-led campus recreation program to improve student wellbeing: exploring participation outcomes of the fitness buddies program. Recreational Sports Journal, 49(1), 16–32. https://doi.org/10.1177/15588661241257478

Kulavic, K., Hultquist, C. N., & McLester, J. R. (2013). A comparison of motivational factors and barriers to physical activity among traditional versus nontraditional college students. Journal of American College Health, 61(2), 60–66. https://doi.org/10.1080/07448481.2012.753890

Lower-Hoppe, L. M., Brgoch, S., Bailey, R., Ryder, A., Lowe, C., Dahl, S., & Wray, D. (2020). How do collegiate sport clubs achieve organizational effectiveness?. Journal of Applied Sport Management, 12(2). https://doi.org/10.7290/jasm120204

Sallis, J. F., Cervero, R. B., Ascher, W., Henderson, K. A., Kraft, M. K., & Kerr, J. (2006). An ecological approach to creating active living communities. Annual Review of Public Health, 27(1), 297–322. https://doi.org/10.1146/annurev.publhealth.27.021405.102100

Selvaratnam, V., Snelgrove, R., Wood, L., & Potwarka, L. R. (2021). How constraints to campus recreation participation differ based on activity type, gender, and citizenship. Recreational Sports Journal, 45(1), 61–68.

https://doi.org/10.1177/1558866121995165

Snelgrove, R., Selvaratnam, V., Wood, L., & Potwarka, L. R. (2022). Distinguishing participants and non-participants in campus recreation: The roles of knowledge and motivations. Recreational Sports Journal, 46(2), 175–183. https://doi.org/10.1177/15588661221125206

Wilson, K. E. S., Wood, L., & Snelgrove, R. (2023). If You Build it Will They Come? The Mediating Roles of Human Resource and Program Capacities. Recreational Sports Journal, 47(1), 4–14. https://doi.org/10.1177/15588661221077695

Wilson, O. W., Walters, S. R., Naylor, M. E., & Clarke, J. C. (2021). Physical activity and associated constraints following the transition from high school to university. Recreational Sports Journal, 45(1), 52–60. https://doi.org/10.1177/1558866121995138

Wood, L., & Danylchuk, K. (2015). The impact of constraints and negotiation strategies on involvement in intramural sport. Managing Sport and Leisure, 20(3), 157–173. https://doi.org/10.1080/23750472.2015.1010279

Table 1

Thematic Categories of Student Suggestions for Improving Campus Recreation Participation

Theme	Description	Shortened Sample Response	Total Frequency	Underactive Students (% of n=125)	Active Students (% of n=57)	More Frequently Suggested (% or group)
Program Timing	Requests for more flexible or convenient hours	"Open earlier," "More evening classes"	37	31 (24.8%)	6 (10.5%)	Underactive
Facility Improvements	Suggestions to improve physical spaces or equipment	"Better gym equipment," "Fix air conditioning"	42	36 (28.8%)	6 (10.5%)	Underactive
Program Variety	Desire for diverse or non-traditional activities	"Offer dance or climbing," "More low impact"	24	13 (10.4%)	11 (19.3%)	Underactive
Awareness/ Promotion	Concern over insufficient communication about offerings	"Send more emails," "Advertise more"	34	28 (22.4%)	6 (10.5%)	Underactive
Motivation	Calls for gamification, rewards, or engagement strategies	"Create fitness challenges," "Gamify workouts"	18	6 (4.8%)	12 (21.1%)	Active
Sports Offerings	Requests for new or expanded sport opportunities	"Flag football," "More intramural soccer"	14	6 (4.8%)	8 (14.0%)	Active
Other	Vague, unclear, or individualized responses	"Make it more fun," "Do better"	13	5 (4.0%)	8 (14.0%)	Active

Note: Total Frequency represents the number of usable open-ended responses assigned to each theme. Some themes were more commonly cited by students who reported not being as physically active as they wanted to be ("Underactive Students"), while others were more common among students who felt sufficiently active ("Active Students"). Responses containing multiple themes (e.g., timing and awareness) were assigned to the single category representing the primary barrier to participation.