

THE ROLE OF SPORTS AND RECREATIONAL ACTIVITIES IN RAISING THE LEVEL OF HAPPINESS OF UNIVERSITY STUDENTS**^{1,*} Azhar Shater, ²Maryam Ahmad Abualrish and ³Marwa Mohammed Abdullah Al manei**^{1,2}Al Ain University, College of Education, Humanities & Social Sciences United Arab Emirates³Masqat University, Oman**Received 09th May 2024; Accepted 05th June 2024; Published online 30th July 2024**

Abstract

The current course of research aims to understand the connection between community engagement and the well-being of university students. It aims to demonstrate the effect of the frequency of use of social networks, the accessibility of content, diversity, and the level of participation within the community on the improvement of the emotional state of students, their sense of belonging, and the reduction of stress. These findings suggest a multidimensional link: although some aspects of community engagement have positive implications for well-being, others are either positive or harmful. Regular community participation enhances psychological well-being and sense of belonging, but not emotional well-being or stress reduction. Access to community services positively impacts emotional health but not community connectedness. The study found a negative relationship between community diversity and well-being outcomes, highlighting the impact of tensions in heterogeneous contexts. High engagement levels are crucial for community engagement but can lead to negative emotions and decreased community identification. The findings highlight the complexity of community engagement and student well-being.

Keywords: Emotional well-being, Recreational Activities, Level of Happiness, Sports.

INTRODUCTION

University stress, financial issues, and assimilation can lead to anxiety and depression among students, causing a rise in health problems on college campuses (Smith *et al.*, 2020). Research consistently shows that students' involvement in sports and recreation not only benefits their psychological health but also contributes to overall happiness (Temel & Tükel, 2021). A few decades ago physical exercise was widely known to be a very effective way to boost one's mood and reduce mental health difficulties (Xie *et al.*, 2021). Students of universities in particular use light exercises regularly as means to unload the stress from the paresis (Darko, 2023). The sense of community and belonging that arise from team sport activities are especially important, leading to the development of strong relationships at various levels which are significant for the finance of psychological health (Michalski *et al.*, 2020). Moreover, besides the positive improvements in health, the practice of recreational hobbies and leisure activities provides students enough time and space to let out into the exploration of personal interests, new discoveries, and both of joy, and happiness (Borraccino *et al.*, 2020). Designing a campus environment that promotes social activities and sports can enhance university life, benefiting students and promoting a dynamic campus environment (Alhamad *et al.*, 2024). When students are provided with enough scope for physical activity, social interaction, and engagement that brings them joy they are more ready to battle the stress brought by schooling and have a stable sense of self care (Cseplö *et al.*, 2022). Mainly, it is essential to regard the combination of sports and recreational provision as a key ingredient of a university's mental health support policy as well as a notion to help develop a friendly student community (Eime *et al.*, 2013).

Academic institutions could ensure that resources which are vital and provide a platform for thorough participation of the students, a higher order which could make them happier and more successful in their educational path would be achieved (Habib *et al.*, 2021). One of the benefits that the university will be able to realize by having a strong fitness and recreation program is that this will not be overstated (Corbin & Le Masurier, 2014). Extracurricular activities offer students a vital re-energizing element to manage academic stress and strain (Oplatka, 2003). Sports, the club, and other discretionary activities are the pillars to the freedom for the students that see stress life being sweet, bond and gain happiness. Ensuring access to original activities in universities can directly impact students' happiness and wellbeing, promoting mental health, academic success, and personal growth during their college years (Grove & Laletas, 2020).

LITERATURE REVIEW**Impact of physical activity on mental health and happiness**

Daily physical activity has also been proven to have a positive influence on the levels of mental health and increased levels of well-being (Fox, 1999). Study has shown that regular exercising is beneficial to the psychological health because they mitigate symptoms of depression and anxiety and also improve the mood (Kandola & Stubbs, 2020). Endorphins are the natural chemicals that the body secretes to create a positive feeling in individuals when they engage in physical and mental activity (Ali *et al.*, 2021). When people perform physical activities their brain releases greater amounts of endorphins that can be helpful in preventing stress, anxiety and depression, and make the person feel good and satisfied with his life (Ali *et al.*, 2021). Third, physical and sporting activity was found to reduce the level of the physical stress response, lowering the concentration of cortisol in the body (Coli *et al.*, 2021). One

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more mechanism is positive changes in the quality of sleep associated with a regular physical activity (Wang & Boros, 2021). Increased sleep quality has been associated with improved mood, decreased stress levels, and enhanced brain functioning which all plays a role in the state of our minds and levels of happiness (Scott *et al.*, 2021). Exercise also has the advantage of increasing the achievement of mastery that has a positive psychological impact on the individual hence improving the mental health of the individual (Schwerter *et al.*, 2022). The importance of exercise and its positive impact on mental health are not restricted to any particular type of activities (Smith & Merwin, 2021). Studies on exercise and depression indicates that any type of workout including running or cycling, weight training or yoga produces beneficial results (Matias *et al.*, 2022). The most important thing is that the activity will become one's favorite which will be easy to incorporate into his/her life. The university students' mental health and physical activity, finding that regular exercise negatively correlated with depression, anxiety, and psychosomatic stress, while positively correlated with quality of life and positive affect, and aerobic exercise significantly improved these symptoms (Herbert *et al.*, 2020). The study found a positive correlation between physical exercise and subjective well-being in college students, with body image and self-esteem playing a significant role in mediating this relationship (Shang *et al.*, 2021).

The role of social interaction in enhancing student well-being

The process of implementing university student belonging and connectedness is very important for the welfare of the students. Past scientific evidences strongly indicate that social connection significantly contributes to improving the psychological wellbeing and progress of students' quality of life (Kim, 2021). Social interaction is thus useful to students due to the enhanced social skills that they acquire (Morrison *et al.*, 2020). Team sport or fitness training enhances students' communication, teamwork, and conflict resolution skills, benefiting academic and career pursuits, as well as relationships (Bjørndal & Gjesdal, 2020). In addition, social connectedness represents a fundamental pillar of student's support system, which is especially important during the times of stress, which are quite common for university students (Deng *et al.*, 2020). The literature review on group-based physical activities for instance has shown that these activities plays important role in helping students develop sense of community and hence improve their feelings of belonging/connectedness as well as isolate feelings (Liu & Lachman, 2021). This social support can be crucial in the elimination of harmful effects such as stress, anxiety, and depression which are rampant among university students (Cohen & McKay, 2020). Moreover, social connectedness is very essential in ensuring that the people are able to have good mental health (Pandya & Lodha, 2021). Empirical research highlights the importance of social bonding in promoting health and well-being, particularly for university students undergoing significant life changes and stress from schoolwork and social expectations (Cobo-Rendón *et al.*, 2020). Universities play a crucial role in creating spaces for social interactions and communities, fostering a sense of belonging among students through group-based activities like sports and recreation clubs, and community service, which significantly improves their overall wellbeing (Jongbloed *et al.*, 2008).

Sense of Belonging and Its Impact on University Students

Sense of belonging in the university is imperative in ensuring the psychological and academic achievement of students (Osterman, 2000). Students who show strong ties to their school are more likely to have positive emotional and academic outcomes, according to research on the relationship between students' sense of belonging and their academic performance (Alhamad *et al.*, 2024). A form of belonging that universities can develop is the participation in sports and recreational events (King *et al.*, 2021). Participation in these activities is about more than just being fit; it also helps people meet new people, which strengthens their social networks and makes them feel more connected to the neighborhood (Ellis *et al.*, 2020). When students participate in campus activities, whether it is club, organizations or intramural sports, they are more likely to have increased institutional connection and satisfaction (Wilson & Millar, 2021). Encouraging students to remain in university, engage in on-campus activities, and accomplish their educational objectives, a strong feeling of belonging leads to increased mental health, greater motivation, and academic performance. The study found that university students aged 18-28 who engage in higher levels of physical activity, academic success, and extracurricular activities have higher life satisfaction, with a recommended weekly exercise time of four to five hours (Slavinski *et al.*, 2021). A survey of 208 older adults found that pickle ball participation was positively predicted by general happiness, social capital, trust, safety, and neighborhood connections among older adults (Kim *et al.*, 2021). A study of 16120 Bartin University students found a low-level association between free time and happiness, with no significant difference between LAS sub-dimensions and SWLS. Participation in extracurricular activities led to a more leisurely outlook (Ayhan & Özel, 2020).

Stress reduction through recreational activities

The role of physical activity, exercise, and aerobic fitness in promoting mental well-being and reducing mental health problems in adolescence. The review suggests that self-regulation impairments in mental health disorders may facilitate resilience by strengthening brain regions and neural circuits, improving emotional and behavioral regulation (Belcher *et al.*, 2021). Stress is a major contributor to ill-health and disease, and strategies to relieve it are crucial for good health. Activities like positive characteristics, art/music therapies, mindfulness, yoga, and physical activity can reduce stress and enhance well-being. Cortisol secretion, regulated by the brain, is a key mediator of stress-disease and well-being-health links. Salivary cortisol can be used to monitor brain health and the effectiveness of stress-alleviating interventions, potentially preventing or delaying clinical disorders (Smyth *et al.*, 2020). Mind-Body Physical Activity (MBPA) in educational settings, focusing on its effects on stress-related physiological health markers in primary, secondary, and higher education students. The review included 26 interventions, with 1625 participants. Results showed significant and large effects for MBPA effectiveness in lowering heart rate, cortisol, and systolic and diastolic blood pressure, with stronger effects in older students. However, most analyses were heterogeneous, and only 38.4% of the 26 studies were good quality (Smyth *et al.*, 2020). There is a significant correlation between age, gender, BMI, cortisol, serotonin, physical activity, academic achievement, and executive functioning among school

adolescents aged 12-18 years old. Optimal physical activity and stress-related hormone release could determine performance in school and other activities (Alghadir *et al.*, 2020).

Physical health benefits and their contribution to happiness

Service learning significantly impacts subjective happiness, prosocial behavior, and professional learning perceptions of Physical Education Teacher Education (PETE) students, promoting PB and PL in various dimensions (Herbert *et al.*, 2020). The games and sports played by the university students significantly add to their sense of fulfillment and quality of life (Lian & Atiyah, 2024). They help decrease stress, increase social connection, improve academic success, promote healthy habits, and give a sense of accomplishment. Physical training has positive impact on brain activity and attention, improving academic performance and self-esteem and accomplishment (Teferi, 2020). Introducing sports and recreational practices into university environment promotes both holistic and integrative philosophy of developing happiness and life satisfaction (Shpak & Vasques, 2023). Universities are addressing mental health issues that negatively impact student outcomes. A study on positive psychology wellbeing interventions in undergraduate psychology classes showed improvements in wellbeing, positive affect, negative affect, and clinical wellbeing. The intervention buffered against semester stress and was more effective for students with low baseline wellbeing and higher happiness values (Young *et al.*, 2022). A study of 1095 university students in southern Spain aimed to identify the frequency of health-fulfilling physical activity engagement. Although the beneficial physical activity enhances resilience, emotional regulation, and reduces psychological distress, while non-beneficial activities negatively impact these aspects (San Román-Mata *et al.*, 2020).

METHODOLOGY

The purpose of this study is to explore sport and recreational activities, and unravel the mediating effects of a sense of belonging and stress diminishment on the happiness level of the university students. The research uses a quantitative design approach with a survey end-of-semester to approach to garner data from 170 university students.

Participants

The sample for this research study involves 199 college students who were undergraduate at a mid-size institution. The sample which is used includes a mixture of students at different stages of study and realms of study, to allow to generalize the result and have representative sample of student body.

Data Collection

Data were collected using a structured questionnaire designed to measure the key variables of interest: sports and recreational activities (frequency, engagement, diversity, accessibility), mediating variables (sense of belonging, stress reduction), and the dependent variable (student happiness).

ANALYSIS

The study considers the connections s and Frequency, Accessibility, Diversity, Engagement, Physical Health, Stress Reduction, Sense of Belonging, Social Wellbeing, Psychological Wellbeing. Analyses indicate positive links between the frequency of activity engagement and physical and mental health as well as stress with inverse connections regarding accessibility.

Correlation Analysis

		Frequency	Accessibility	Diversity	Engagement	Physical Health	Stress Reduction	Sense of Belonging	Social Wellbeing	Psychological Wellbeing
Frequency	Pearson Correlation	1	-.210**	-.101	.028	.187**	.183**	-.113	.106	.105
	Sig. (2-tailed)									
Accessibility	Pearson Correlation	-.210**	1	.157	.110	-.015	.030	-.094	-.025	-.208**
	Sig. (2-tailed)	.003		.049	.122	.831	.671	.186	.722	.003
Diversity	Pearson Correlation	-.101	.140*	1	.018	-.169*	-.265**	-.101	.017	.014
	Sig. (2-tailed)	.157	.049		.801	.017	.000	.157	.809	.848
Engagement	Pearson Correlation	.028	.110	.018	1	.009	.050	-.254**	.140*	-.187**
	Sig. (2-tailed)	.696	.122	.801		.897	.483	.000	.049	.008
Physical Health	Pearson Correlation	.187**	-.015	-.169*	.009	1	.612**	-.278**	.222**	-.148*
	Sig. (2-tailed)	.008	.831	.017	.897		.000	.000	.002	.037
Stress Reduction	Pearson Correlation	.183**	.030	-.265**	.050	.612**	1	-.340**	.398**	-.194**
	Sig. (2-tailed)	.010	.671	.000	.483	.000		.000	.000	.006
Sense of Belonging	Pearson Correlation	-.113	-.094	-.101	-.254**	-.278**	-.340**	1	-.153*	.436**
	Sig. (2-tailed)	.113	.186	.157	.000	.000	.000		.031	.000
Social Wellbeing	Pearson Correlation	.106	-.025	.017	.140*	.222**	.398**	-.153*	1	-.403**
	Sig. (2-tailed)	.136	.722	.809	.049	.002	.000	.031		.000
Psychological Wellbeing	Pearson Correlation	.105	-.208**	.014	-.187**	-.148*	-.194**	.436**	-.403**	1
	Sig. (2-tailed)	.139	.003	.848	.008	.037	.006	.000	.000	
	N	199	199	199	199	200	200	200	200	200

It is found that Accessibility has positive relation towards Diversity and negative relation towards Frequency and Psychological Wellbeing. The inverse relationship with Physical Health and Stress Reduction indicates that diverse participation might be associated with poor physical health and additional stress. The author states that there is negative correlation between Engagement in activities and Sense of Belonging/ Psychological Wellbeing and there is positive correlation between Stress reduction and Social Wellbeing. This finding shows that Sense of Belonging is positively associated with Psychological Wellbeing, whilst social wellbeing is negatively associated Psychological Wellbeing.

Regression Analysis

Mediating Impact of Emotional Well Being

Dependent Variable	Frequency	Accessibility	Diversity	Engagement
Emotional Wellbeing	-0.022	0.385	-0.406	-0.297
Sense of Belonging	0.296	0.001	-0.048	-0.236
Stress Reduction	-0.027	0.058	-0.278	0.047

The table shows the standardized coefficients (Beta) for each independent variable in relation to the three dependent variables that has included Emotional Wellbeing, Sense of Belonging, and Stress Reduction. Based on the results as this has included the frequency has a negative impact on Emotional Wellbeing (-0.022) but a positive impact on Sense of Belonging (0.296) and a negative impact on Stress Reduction (-0.027). Further, the accessibility has a positive impact on Emotional Wellbeing (0.385) but negligible impact on Sense of Belonging (0.001) and Stress Reduction (0.058). Diversity has a negative impact on Emotional Wellbeing (-0.406), Sense of Belonging (-0.048), and Stress Reduction (-0.278). Engagement has a negative impact on Emotional Wellbeing (-0.297) and Sense of Belonging (-0.236) but a positive impact on Stress Reduction (0.047).

Mediating Impact of Psychological Well-Being

Dependent Variable	Frequency	Accessibility	Diversity	Engagement
Psychological Wellbeing	0.505	-0.100	0.113	-0.149
Sense of Belonging	0.296	0.001	-0.048	-0.236
Stress Reduction	-0.027	0.058	-0.278	0.047

The table shows the standardized coefficients (Beta) for each independent variable in relation to the three dependent variables as these were included Psychological Wellbeing, Sense of Belonging, and Stress Reduction. Based on the results as this has included frequency has a positive impact on Psychological Wellbeing (0.505) and Sense of Belonging (0.296) but a negative impact on Stress Reduction (-0.027).

Accessibility has a negative impact on Psychological Wellbeing (-0.100) but negligible impact on Sense of Belonging (0.001) and Stress Reduction (0.058). Diversity has a positive impact on Psychological Wellbeing (0.113) but a negative impact on Sense of Belonging (-0.048) and Stress Reduction (-0.278). Engagement has a negative impact on Psychological Wellbeing (-0.149) and Sense of Belonging (-0.236) but a positive impact on Stress Reduction (0.047). These results suggest that the different community engagement variables have varying mediating impacts on the three outcome variables of Psychological Wellbeing, Sense of Belonging, and Stress Reduction.

Dependent Variable	Frequency	Accessibility	Diversity	Engagement
Psychological Wellbeing	0.505**	-0.100	0.113	-0.149*
Sense of Belonging	0.296**	0.001	-0.048	-0.236**
Stress Reduction	-0.027	0.058	-0.278**	0.047

The table shows the standardized coefficients (Beta) for each independent variable in relation to the three dependent variables: Psychological Wellbeing, Sense of Belonging, and Stress Reduction. Based on the results: Frequency has a strong positive impact on Psychological Wellbeing (0.505, $p < 0.01$) and Sense of Belonging (0.296, $p < 0.01$) but no significant impact on Stress Reduction (-0.027, $p > 0.05$). Accessibility has no significant impact on Psychological Wellbeing (-0.100, $p > 0.05$), Sense of Belonging (0.001, $p > 0.05$), or Stress Reduction (0.058, $p > 0.05$). Diversity has a strong negative impact on Stress Reduction (-0.278, $p < 0.01$) but no significant impact on Psychological Wellbeing (0.113, $p > 0.05$) or Sense of Belonging (-0.048, $p > 0.05$). Engagement has a negative impact on Psychological Wellbeing (-0.149, $p < 0.05$) and Sense of Belonging (-0.236, $p < 0.01$) but no significant impact on Stress Reduction (0.047, $p > 0.05$). These results suggest that the different community engagement variables have varying mediating impacts on the three outcome variables of Psychological Wellbeing, Sense of Belonging, and Stress Reduction.

DISCUSSION

The results from the tables above indicate that the effect of the different variables under the construct of community engagement Frequency, Accessibility, Diversity, and Engagement on Emotional Wellbeing, Sense of Belonging, and Stress Reduction, are not consistent but rather have varied effects. The main motivations for university students to engage in physical education and sports using interactive technologies. The experiment involved 115 students from four academic groups majoring in "Professional training (by industry)" in their 3rd year. After incorporating interactive technologies, the number of students with internal positive motivation increased from 15% to 49% (Nagovitsyn *et al.*, 2020). A study of 478 Thai university students found that male students had lower happiness and psychological well-being than female students, and reported higher perceived stress. They also reported inadequate diet, poor sleep quality, and depressive symptoms. The study suggests that further research is needed to understand the factors contributing to these health risks (Calderon Jr *et al.*, 2021). A study on 149 Spanish university students found that self-acceptance, positive relationships, autonomy, environmental mastery, personal growth, and purpose-in-life dimensions are the most significant factors influencing their psychological well-being, potentially guiding educational policies (Morales-Rodríguez *et al.*, 2020). Of particular interest is the effect of Frequency on the outcome variables with the results indicating that frequency has a mixed relationship that has included frequency significantly predicts sense of belonging and Psychological Wellbeing positively ($\beta = 0.296$, $p < 0.01$ and $\beta = 0.505$, $p < 0.01$ respectively) which meant that participating in community activities enhances sense of inclusion and mental health. The study reveals that 91% of Saudi university students engage in walking activity, despite barriers like limited facilities and academic workload. Facilitators include positive results, health concerns, and family support, potentially aiding in developing physical activity interventions

(Aljehani *et al.*, 2022). The study found that a ten-minute physical activity session significantly improved visual attention and perceived attention in physically active sport students, suggesting that running could restore visual attention more effectively than sedentary behavior (Niedermeier *et al.*, 2020). The impact on emotional wellbeing is slightly negative toward it ($\beta = -.02$) and insignificant on Stress Reduction ($\beta = -.027$, $p > 0.05$); indicating that more frequent use could be beneficial to parts of psychological well-being but fails to provide evidence of stress reduction to emotional health by participation. Moreover, ease of access to community resources has a positive correlation with Emotional Wellbeing ($\beta = 0.385$) which indicates that accessibility effectively improves one's emotional wellbeing. However, it is only moderately useful in dealing with Sense of Belonging and Stress Reduction as its effect is quite low and statistically not significant ($\beta = 0$). Although $\beta = 0.058$, respectively), suggesting that simple access does not automatically lead to a more vibrant community and alleviated tension. The study found that regular 10-week recreational activities, including swimming and fitness, reduced perceived stress by 33.57%, increased happiness by 20.58%, and increased life satisfaction by 14.39% among 199 volunteer women (Alanoglu *et al.*, 2020). The relationship between well-being, leisure constraints, and negotiation factors in predicting leisure-time physical activity (LTPA) rates among university students. Results show that bottom-up psychological factors like planning and prioritisation skills positively predict LTPA, while top-down factors like personal growth and autonomy negatively predict LTPA. These findings could inform university health promotion policies (Hartman *et al.*, 2020).

The second aspect, diversity, paints a rather mixed picture as it affects emotional wellbeing with a negative beta value of -0.406 , Sense of Belonging ($\beta = -0.278$, $p < 0.01$), which indicates that there is likely to be increased tension in very diverse environments where differences are accentuated above commonalities, resulting in reduced affective well-being, reduced feelings of connectedness, and increased stress. A study surveyed 158 Division I athletes to understand stress perceptions, coping mechanisms, and support from coaches and athletic department personnel, finding stress impacts daily life differently (Cutler & Dwyer, 2020). Study shows that university students' active participation in outdoor recreation reduces stress, promotes emotional and cognitive renewal, and helps them reflect on their lives however, encouraging outdoor recreation at all life stages is crucial (Puhakka, 2021). Adolescence is crucial for developing health-related habits, but decreased physical activity and sedentary time can lead to obesity. Physical activity in school improves children's well-being (Vaquero-Solís *et al.*, 2021). Another type of positive behaviour is engagement with the following results as this has included engagement negatively influences Emotional Wellbeing ($\beta = -0.297$) and Sense of Belonging, 236 , $p < 0$. No significant influence on Stress Reduction ($\beta = 0.047$). These results indicate that active participation is vital; however, it might in some instances have adverse emotional effects and decreased identification with the community due to too much 'investing' in this entity or unrealistic expectations concerning participation. The relationship between physical activity (PA), stress, and academic performance (AP) in university students. Five databases were searched, and a meta-analysis found no significant associations. The results indicated a research gap in

understanding the connection between PA, stress, and AP in university students (Wunsch *et al.*, 2021).

Implication

- Engaging in community activities periodically can improve well-being and positive connection among university students and encourages universities to engage their students into these activities through campaigns and rewards.
- Universities should expand access to community resources – including more usable building infrastructure, better choices around transportation, and more accessible information – in an effort to bolster students' emotional wellbeing, even as evidence suggests that these efforts do not meaningfully improve feelings of belonging or reduce stress.
- The case of community participation and its diversity. College campuses should offer programs designed to work toward a collective mission statement and diversify and integrate their worldview in order to reduce conflict.
- Over participation in community-related activities has been associated with deleterious mental health outcomes and decreased feelings of connectedness with community. Educational institutions should encourage a balanced use of such involvement in learning and offer support to prevent students from getting involved in such engagement excessively or insufficiently.

Conclusion

The study reveals no clear causal relationship between community outreach and university students' happiness, suggesting that while engagement can enhance belonging and psychological well-being, it can also negatively impact emotional stability and stress reduction. These findings clearly highlight the importance of a better understanding of the relationships between community engagement and student wellbeing where the background and context of community engagement are considered. University administrators and student support services must consider these findings when developing community-based programs to promote optimal university lifestyle participation, increased access to university life, inclusion, and responsible community creation. Future studies should look at the influences of the multidimensional components of community engagement on the measures of student wellbeing.

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