**2023 Fall**

# Kentucky SHAPE Journal
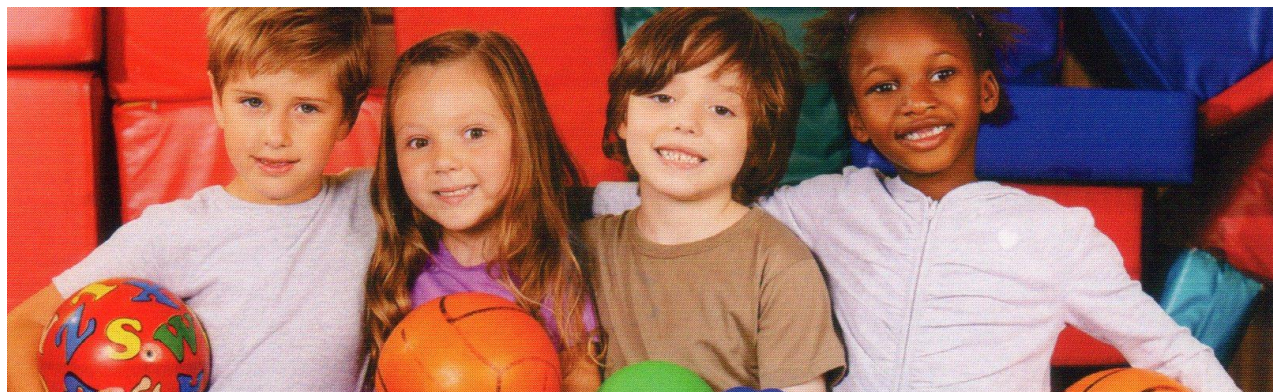
# Kentucky SHAPE Journal
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### (Peer Reviewed Articles)

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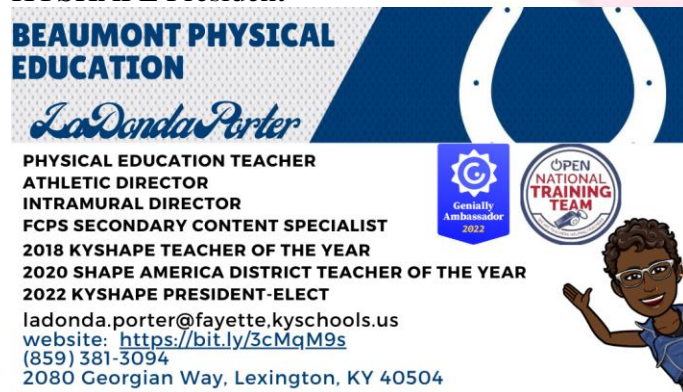# 2023 Board Members of KY SHAPE

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## A Message from the Kentucky SHAPE President

Greetings KYSHAPE members and journal readers!  As a member of KYSHAPE and the board, I first appreciate all the efforts of Dr. Steve Chen and his team for the work they do in publishing such a great journal that has information that is so beneficial for all professionals in Kentucky.  As we wrap up the Thanksgiving holiday, I want to take a moment to talk about gratitude.  I am also so grateful to be serving as your KYSHAPE president for the well into the summer of 2024 year.  We will be continuing with our Move Thrive theme.  Continue to encourage your students to move so they can thrive well into adulthood.  If you haven't done so,  become a KYSHAPE member and take advantage of all the wonderful professional learning opportunities that we provide.  As always, please don't hesitate to reach out to any board member for any assistance you may need.  Thank you all for what you do to help shape our students and look forward to another AMAZING KYSHAPE year!
Sincerely,

LaDonda Porter Physical Education
Beaumont Middle School (Fayette Co.)
KYSHAPE President



## Acknowledgement

## Kentucky SHAPE Journal Submission Guideline

## SUBMISSION OF A PAPER

The *Kentucky SHAPE Journal* (formerly *KAHPERD Journal*) is published twice yearly (spring and fall) by the Kentucky SHAPE. The journal welcomes the submission of empirical research papers, articles/commentaries, best practices/strategies, interviews, research abstracts (spring issue only) and book reviews from academics and practitioners. Please read the information below about the aims and scope of the journal, the format and style for submitted material, and the submissions protocol. Your work will more likely to be published if you follow the guidelines thoroughly.

Articles are accepted via an electronic attachment (must be in Microsoft Word format, doc or docx) through e-mail to the editor before the deadline dates. Submissions should be sent to one of the co-editors below based on the topic (nature) and discipline of the study:

- For an article related to health and physical education, health promotion, exercise science and exercise physiology, please email the submission to Gina Gonzalez: ggonzalez2@saybrook.edu

- For an article related to recreation and sport management/administration, sport sociology, and sport coaching, please email the submission to Tricia Jordan (tricia.jordan@wku.edu)

**Deadlines:**
Spring issue—March 1
Fall issue—September 1

Estimated publishing time: Spring issue—Mid May & Fall issue—Late November

## AIMS AND SCOPE

The main mission is to bring together academics and practitioners to further the knowledge and understanding of issues and topics related to health, physical education, sport administration and marketing, exercise science, sport coaching, dance, and recreation, etc. We encourage submissions relating to these topics from a variety of perspectives.

## FORMAT AND STYLE

When preparing manuscripts for publication in the *Kentucky SHAPE Journal*, authors should follow the guidelines set forth in the *Publication Manual of the American Psychological Association, Seventh Edition, 2019.* Manuscripts should not be submitted for publication elsewhere at the same time being reviewed by *Kentucky SHAPE Journal*. Authors are advised to proof the typing, and check references for accuracy. Articles should include an abstract of approximately 150 words including the rationale for the study, methods used, key findings and conclusions. Manuscripts should not exceed 20 double-spaced pages (not including references, tables, and figures).

The manuscript must be typed double-spaced, including the abstracts and references; please number each line. Tables, charts, pictures, diagrams, drawings and figures should be in black and white, placed on separate pages at the end of the manuscript. They must be submitted photo-ready and

reproduced to fit into a standard print column of 3.5 inches. Only one copy of each illustration is required, and captions and proper citations should be typed on the bottom of the table and diagrams; please clearly mark where the tables/figures belong in the text. Jargon should be reduced to a minimum, with technical language and acronyms clearly defined. The accuracy of any citations is the responsibility of the author(s).

For more specific style questions, please consult a recent edition of the journal.

## CONTENT

All submissions should be written primarily to inform senior practitioners and academics involved in areas of health, physical education, recreation, and dance.

### Research Manuscripts

Research articles should be well-grounded conceptually and theoretically, and be methodologically sound. Qualitative and quantitative pieces of research are equally appropriate.
Formatting suggestion: Introduction, Literature Review, Methodology, Results, & Discussion, Conclusion, and Implication.

### Book Reviews

Reviews of books and/or reports are welcome (around 1000-2000 words). Information concerning the book/report must be sent to the editor. Interviews (it would be nice to discuss with the editor beforehand) and best practice/strategy papers of 1,500-3,000 words should be objective and informative rather than promotional and should follow the following
format: Objective/Background/Discussion and Practical Implication.

### Research Abstracts

Research abstracts (300 words or less) are welcome. The submitted abstracts should have been presented (either an oral or a poster presentation) in the KAHPERD annual conference in the previous year.
*The editors are keen to discuss and advise on proposed research projects, but this is no guarantee of publication.

### Case Studies

The purpose of using case studies in learning environments is to stimulate critical thinking. Such thinking skills as problem-solving, decision-making, creative thinking, visualizing, knowing how to learn, and reasoning should be stimulated as your case is discussed in learning environments.
The guidelines found below provide authors guidance in writing case studies for publication in the *KAHPERD Journal*:

1. Use narrative form when writing your case(s). Consider telling a brief story about a controversial or problematic issue or incident in the field of discipline selected from the list of suggested subject areas, competencies, and educational levels. The story could, for example, illustrate principles or theories, describe events, and/or address problems or situations related to the topic(s) you choose. You may include data to be analyzed or illustrated. Include a key character with a

problem or dilemma to solve.  Within the case, the key character may or may not attempt to solve the issue within the case.

For Example:

| Suggested Subject Area | Competencies | Focus | Educational Level |
|---|---|---|---|
| Alcohol sponsorship and sales at collegiate venues | Diversity, ethics, decision making, social responsibility | Sport Management | Undergraduate, Graduate, or both |
| Class management | Leadership, strategic planning, communication | PE | Undergraduate, Graduate, or both |
| Design of fitness programs | Scientific training, First Aid training, sport psychology | Exercise science | Undergraduate, Graduate, or both |
| Tourism economic impact study | Economy, analytic skills, event planning | Recreation | Undergraduate, Graduate, or both |
| Developing a weight watching program | Nutrition, exercise knowledge, motivation…. | Health, and health promotion | Undergraduate, Graduate, or both |
| Preparing a dance gala | Strategic planning, event management, dance performance | Dance | Undergraduate, Graduate, or both |

2.  The case can be based on reality or fictional scenario. It can also evolve from one's own or others' actual experience.  It can be deeply personal and reflective, yet it should be written objectively. The case is intended to simulate real life; therefore, the case does not have to be unrealistically neat.  Rather, the issue can be messy and complex.

3.  Case authors should provide questions and solution ideas. Often, when writing and discussing case(s), it is advised to allow readers to discuss analyses and compromise, make their own interpretations, and draw their own inferences regarding solutions. Although solutions may not always extensively included, case authors are encouraged to cover detailed solutions that helps educators discuss the cases in a more informed and insightful way with students.

4.  To provide an optimal learning opportunity through the case(s), four elements should be included in the case study submission:

    a.  Abstract and learning objectives: a summary of case and its purpose, learning outcomes and applications (75-150 words)

Fill in the following boxes

| Suggested Subject Area | Competencies | Focus | Educational Level |
|---|---|---|---|
|  |  |  |  |

    b.  Introduction of case: presentation of issues, challenges, problems, and various thoughts
    c.  Teaching notes: addressing discussion questions, guidelines for discussions, and pros and cons of different solutions

    d.   References

## SUBMISSIONS AND REVIEW PROTOCOL

Submission of a paper to the publication implies agreement of the author(s) that copyright rests with *Kentucky SHAPE Journal* when the paper is published. *Kentucky SHAPE Journal* will not accept any submissions that are under review with other publications. All manuscripts submitted will be peer-reviewed by 2 to 3 professionals/experts.  Authors will normally receive a decision regarding publication within six to eight weeks. Rejected manuscripts will not be returned.

**(Peer Reviewed Article)**

## Best Practices in Teaching Research to Undergraduate Recreation Students

*Raglena Salmans, Eastern Kentucky University*
*Jon McChesney, Eastern Kentucky University*

### Abstract

Research, a daunting word for most undergraduate recreation students, could potentially be remedied right in their core course curriculum. By building research methods into undergraduate coursework, a student can become comfortable and confident in their own abilities. Introducing students to the art of asking questions, developing questions, and gaining buy-in can start in the classroom and filter into their recreation internships and careers. Focus on beginning with the end in mind with a practical hands-on approach. Previous professors and researchers found that starting in the classroom, in small groups with the faculty serving initially as a facilitator, mentor, then a confidant allowed for growth and preparations needed for real-world application. Once this practice has occurred the student can take the lessons learned and apply them in a multitude of professional recreation settings over the various years of their career.

### Introduction

The word or term – research – can be rather daunting for undergraduate recreation students who have little to no experience with it. A firm foundation must be built into the recreation program coursework to guide the new researcher to be comfortable and confident in their abilities. Best practices in the world of recreation and park administration lead to hands-on exposure in soliciting data. For undergraduates in recreation starting with research exploration through scenarios, with their faculty member as a guide, slowly backing out of the forefront for the student to become the leader of their own research. Advancement ensues when the progressive undergraduate researcher begins to initiate his or her own research project with the faculty as a mentor. To progress through these steps while focusing on the field of recreation the faculty must develop a strategy. The strategy needed will introduce frameworks such as the research development skills framework (Willison & O'Regan, 2007), a Master Plan, the Statewide Comprehensive Outdoor Recreation Plan (SCORP), SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis, and an overall understanding of the vast variety of sampling techniques. Familiarity with a previously developed plan may aid in the young professional's foundation of utilizing such tools in their future. A well-rounded experience with research methods can play an integral part in the undergraduate student experience (Denham, 1997) thus giving them an anchor to conduct and guide their own research as recreation professionals.

### The Basis

To begin building this foundation, specifically in recreation, the undergraduate program must tailor introducing the objective of research early on during coursework. Research components throughout many courses will instill knowledge and understanding thus setting a sound foundation for the future career path of the recreation professional. During these courses, the foundation-level programs and

activities should be highly organized by the faculty. Thus, controlling the rigor to show the importance of understanding along with the essentials of academic integrity and the behavior of a responsible researcher (Oregon, 2022). How should the faculty begin this process? Simply by starting small. Starting with the goal of students gaining practical knowledge about how research is conducted. Utilizing a practical hands-on approach thus inspires students to conduct research (Aguado, 2009) in their career field of recreation. Undergraduate research experiences, in their early courses, should serve as a basis for understanding why research exists and is necessary for the recreation profession. In addition to understanding data and why research is important is being able to analyze data and critically read literature. Conducting literature reviews, reading surveys, reviewing Master Plans' and a state SCORP analysis will be essential to a future recreation professional.  Starting with the end in mind, asking what is to be gained from this (or any) research, will help the student make sense of not only the information at hand but how it will be utilized for decision-making in the given area of recreation.

Assisting students in learning to ask questions is an integral part of research in any career field, specifically in recreation. During a lecture in an undergraduate course is the ideal time to explain how and why asking questions is key to research. Having students work in groups to develop research questions, formulate hypotheses, and ask "why?" questions (Aguado, 2009) will build on their own understanding and confidence to utilize themselves as resources in getting started. Gaining student buy-in on asking questions is foundational for facilitating the research process.  Likewise, having examples of the use of such questions from professionals in the field will link the classroom to the career application needed to further develop research-ready recreation professionals.

Progression should include activities that expand a student's awareness of the opportunities research has for advancement in the profession and career plans (Peachey & Baller, 2015). Critical thinking is at the forefront of what is necessary to comprehend what research is trying to portray (Denham, 1997) along with what our society is saying is needed. In the case of recreation, the community knows what it wants, and the only way to find out what the community wants, needs and action to take are through some type of research practice.  Utilization of case studies, a division of the Parks and Recreation Master Plan, or a SCORP could initiate the understanding of combining research and practice (Peachey & Baller, 2015). The engagement of undergraduate students is a best practice for setting students up for success during their foundational period. This provides an opportunity for teaching and learning engagement along with instilling an appreciation for research (Peachey & Baller, 2015) in the varying fields of recreation.

## A Hands-on Approach

A practical hands-on approach as a teaching method begins in the classroom with a scenario approach. For example, if the topic of the course is leisure diversity, begin with utilizing a scenario such as transportation to and from recreation and leisure facilities where the population may be inhibited to participate because of access. Focus first on learning about how to generate the question. Start by having students work in groups during class to get familiar with working with one another. Suggesting broad topics to consider as a starting place and encouraging discussion amongst themselves.  Then allow the class groups to break down the bigger topics to continue discussions (giving them a platform to have a voice and feel a part of a group, like a focus group setting. Follow up with suggestions about

what research questions could be important given the topics they have been discussing.  Focus on beginning with the end in mind, asking the students what they are trying to learn from the specific topic they have been discussing.  Introduce the difference between *qualitative* and *quantitative* research. Discuss those differences and how each could prove useful in the field of recreation, remembering that emotions sell in recreation. True statements and quotes from community members will be more beneficial when using research for planning and collaboration is the emotional information that can be more useful than a data set of numbers. Emotion sells when you pinpoint what is at the heart of the community.

Encouraging the review of literature is essential in research for several reasons.  Students, need to see what has already been done both recently and in the past.  A simple understanding of how to conduct a literature review is a critical place to start.  Students may not need to do in-depth, scholarly article reviews for every research question they have, but knowing where to begin is important.  At an institution of higher education, a research librarian visiting a class period would be an asset, to the students, to assist with the fundamentals of this process. Once the literature review is complete then the fun part of research begins with gathering data. Whether a focus group of community members, an advisory board of directors, or a community-wide survey, in recreation, qualitative data is everything to a recreation professional.  Emotion sells! What does emotion sells mean? It aims to tell a story and or get to the heart of a group, community, or entity; focusing on what matters to them. A recreation professional must be aware of emotions and abstract things (such as morals, values, and opinions) when asking questions and gathering data. When it is time to analyze the data collected, it will be qualitative and not quantitative data where recreation data is concerned.  When utilizing survey information, questionnaires, demographics, attendance records, observation, interviews, and focus groups – the evidence comes together through the compilation of the information collected.

Utilization of the information collected is now in the hands of the recreation professional.  Decisions can be considered, and suggestions made to the staff, Board of Directors, City Council. Sometimes drawing conclusions is the hardest part because the research may prove something different than expected, but that is exactly why research should be conducted.  Changes and adaptations to programs and offerings may be needed for a variety of reasons including use, budget, or even community buy-in. However, research conclusions should prove positive for the recreation department's direction as its sole purpose is to question, determine what is needed through data, and act on what the data prescribes.

Teaching students that collecting data can be fun and ultimately rewarding is crucial.  Likewise, it is important to implement information on ethical data collection, utilizing IRBs, and the proper ways to maintain personal information (if gathered) for safe storage. At the forefront of data collection for recreation professionals is the utilization of focus groups from the community and advisory boards, compiled of those who will bring strategic advice to the forefront. Qualitative data is key in recreation as emotion sells; emotional attachment and/or promotion of a venture can assist in moving recreation endeavors forward. Like focus groups and advisory boards, SWOT analyses can be a positive resource for recreation professionals.  SWOT is an acronym for strengths, weaknesses, opportunities, and threats.  The application of this analysis is crucial for assessing both large and small projects as it looks at a variety of considerations to make the best judgment on how to move forward.  The SWOT analysis may bring to the forefront some ideas to contemplate that had not previously been

considered.  This analysis assists in deflecting biases that may have once been present in the researcher thus aiding in making the best all-around decisions for the recreation department.

## Utilization of Recreation Resources

In recreation, a bonus is that there are ways and means of researching community and societal needs. A *Master Plan* for a city or county Department of Parks and Recreation is a great start.  This type of strategic plan provides a comprehensive and long-range strategy for steering the department according to the needs and necessities suggested (Richmond, 2020).  The utilization of focus groups, convenience samples, Likert scales, and surveying for both qualitative and quantitative information is included in this type of plan.  A Master Plan, much like a SWOT analysis, assesses deficiencies, vision, current programming, future programming, staffing, and the overall purpose of the department. Without purpose, a plan is invalid and thus unreliable.  Having a Master Plan is a strategic direction or guide for the future of a parks department.  Creating and utilizing the plan is necessary to guide the department all the while keeping records of all programming for revisiting in the future. A Master Plan is typically several years in length with the idea to reassess in four or five years, having multiple years in a plan can help steer future plans by utilizing the data collected over the years of programming implementation.  Thus, goals and objectives are needed in this plan to move the department in the intended direction.

A SCORP (State-wide Comprehensive Plan) serves as a guiding tool for city and county municipalities in recreation (Kentucky Department for Local Government, 2020).  A SCORP aids those writing a Master Plan for a specific department as to the suggestions of policy and lawmakers in offerings, obstacles, and opportunities encouraged for the citizens of the state.  This tool provides quantitative data from citizens on what is important to them, by area.  Current trends in facility use of outdoor recreational areas and state historic sites are included in a SCORP.  The goals and objectives of the state are found in the SCORP providing direction to those community recreation departments for their own Master Plan (Kentucky Department for Local Government, 2020). This analysis considers varying age groups, demographics, socioeconomic status, and recreation facility availability.

Consulting others who are already in the profession can also be a beneficial resource.  Utilizing opportunities to work with another professional (in a peer-to-peer mentor relationship) can provide ideas, be a sounding board, and challenge a new professional to think outside of the box.  Although this consultation would not be a traditional research tool, it would serve as a recreational networking opportunity that is always useful to those up and coming in a field.

## Bringing it All Together

Starting early in the recreational program curriculum, basic fundamentals of research are needed. Teaching students that research is everywhere and that people research every day, the idea of research will then become a part of their vernacular. Once future recreation professional experiences the various parts of research themselves, their foundation will be built for their career. Within the educational curriculum, it is essential to build an understanding of how beneficial research is for recreation, parks, tourism, natural resources, and outdoor pursuits.  Once research for the practice of

utilization is established the new professional will be ready to make needed decisions in the profession. Decisions can be considered, and suggestions made to the staff, Board of Directors, City Council, etc. The Master Plan of the Department is critical here. Disclosure of changes and adaptations to programs and offerings via the research (questioning, data collecting, and analysis) that has been completed (City of Richmond, 2020). This may be the most challenging part for students as the information may be different than expected at the onset of the research process. The Master Plan and SCORP are critical to understand (and utilize) here for the best decision-making and program planning to occur.

All in all, research is everyone's business in recreation. It is key to understand at the most basic level to apply in recreation and beyond. Having research methods and principles incorporated into every course offering in recreation is essential for the future recreation professional. These students can apply their learnings through every step of their undergraduate schooling process and are comfortable and confident in the professional career setting they pursue after graduation.

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**(Peer-Reviewed Article)**

## Enhancing Long-Term Recovery from Substance Use Disorder: The Impact of an Exercise Program on Recovery Capital and Overall Well-being

*Dr. Aaron MacDonald, Eastern Kentucky University*
*Dr. Richard Ingram, University of Kentucky*
*Dr. Martha Ridell, University of Kentucky*
*Dr. Kathi Harp, University of Kentucky*

**Abstract**

The opioid crisis in the United States remains a pressing issue with widespread implications. This study investigates the potential impact of an exercise program on individuals undergoing treatment for Substance Use Disorder (SUD) and Opioid Use Disorder (OUD), with a focus on enhancing Recovery Capital (RC) and overall well-being. The study evaluates a partnership between a treatment facility, The Counseling Center (TCC), and a CrossFit-affiliated gym, Portsmouth Spartan Kettlebell Club (PSKC), to explore how high-intensity exercise interventions may positively influence the long-term recovery trajectory of SUD patients. The study analyzes demographic information, substance use history, and well-being indicators in participants engaged in the exercise program compared to those not participating. The findings suggest that those who participate in the exercise program are associated with improved physical health, increased energy levels, reduced feelings of hopelessness and depression, and an increased sense of fulfillment without substance use. While further research is recommended to explore specific exercise regimens and the social dynamics within the program, the study emphasizes the potential benefits of incorporating guided exercise programs into SUD recovery strategies to enhance overall health, recovery capital, and the long-term well-being of individuals recovering from substance abuse.

**Introduction**

The opioid crisis continues to be a significant issue in the US, with devastating consequences for public health and communities. The Department of Health and Human Services estimates that in 2019, 10.1 million people aged 12 or older misused opioids in the past year. Of that population, 9.7 misused prescription pain relievers, and nearly 750,000 people used heroin (HHS, 2023). While the issue is nationwide, there are pockets of the US that have been especially ravaged by the crisis.

Portsmouth, Ohio, located in Scioto County is a town and region that has been especially hard hit by the initial prescription opioid crisis of the early 2000s, and currently, the non-prescription opioid crisis. Between 2006 and 2012, an estimated 37,686,098 prescription opioid pills moved through Scioto County (ARCOS, 2011), earning Scioto County the title of "America's Pill Mill" by various media outlets (Arnade, 2017).

Following the crackdown on prescription opioid access, non-prescription opioids, almost exclusively in the form of heroin, quickly gained a foothold in southeast Ohio. Scioto County officials reported an almost 100% transition to heroin from those who had been abusing prescription opioids (Krisberg,

2014). Regardless of the form, Scioto County continues to experience some of the highest overdose death rates, not only in Ohio but in the US. A 2021 report by the Ohio Attorney General's Office (2021) placed Scioto County as Ohio's leader in opioid overdose deaths, with a rate of 35.22 deaths/100,000 population. The Centers for Disease Control report the US's overall opioid overdose death rate at 21.6/100000 (CDC, 2022).

This study examines the potential of an exercise program within the context of SUD & OUD recovery, aiming to enhance RC and overall well-being among participants. The partnership between TCC and PSKC serves as the backdrop for exploring the impact of high-intensity exercise interventions on the long-term recovery journey of individuals overcoming SUD.

*Background*

The opioid crisis, especially the non-prescription opioid crisis, has had a profound impact on regions like Scioto County, Ohio, which has experienced some of the highest overdose death rates. The existing treatment landscape, while expanding, struggles with high relapse rates. Recovery capital, encompassing personal/physical, family/social, and community aspects, emerges as a vital determinant of long-term recovery success. This study posits that exercise programs, due to their potential impact on the physical and mental well-being of those with SUD, could positively contribute to RC.

The Counseling Center (TCC), located in Portsmouth, Ohio in Scioto County, is one of the largest and oldest treatment facilities located in Scioto County. On a given day in 2022, TCC will treat between 500-600 patients across their multiple facilities. TCC expects to treat 2,500 patients this year.

Facing an increasing patient population and an increasing rate of relapse in their OUD patients, TCC began looking for treatment methods that would engage patients longer than their course of treatment and establish long-term habits that would engage patients longer than treatment would last. TCC decided to begin a partnership with the Portsmouth Spartan Kettlebell Club (PSKC), a nearby CrossFit (CF) affiliated gym.

The partnership with PSKC was established based on TCC's holistic approach to patient care and its philosophy of viewing the patient as a whole person and not just a person with a single issue. TCC has a history of working with patients to provide free/low-cost housing, transportation, food services, educational and vocational development, primary health care, & other safety-net services. The addition of supervised gym instruction from certified staff allowed patients to invest in their long-term physical health.

CF is an exercise program that was founded in the mid-1990s and has experienced a period of rapid growth. As of 2021, CF was a 4-billion-dollar company with more than 15000 CF-affiliated gyms in 120 countries. As a training methodology, CF combines multiple training philosophies to create CF programming. In any given workout of the day (WOD) a CF participant, under the guidance of a CF-certified trainer, might partake in elements of gymnastics, strongman training, Olympic lifting, sprints, and calisthenics. Workouts are intended to be done at the highest intensity level possible and

as quickly as possible. Most CF WODs are scalable to the participant and are designed to be done in 20 minutes or less.

There is a competitive element to most CF gyms. Participants compete against other gymgoers for recognition & many gyms highlight and keep track of workout winners. CF gyms will also track various performance metrics, so participants will monitor workout times and weight lifted and try to better those metrics from workout to workout. There is also a series of competitive CF competitions. Many of these are done locally at the amateur level with CF gyms competing against each other, but CF also has a professional series of competitions, where men and women compete for the CF title of "Fittest on Earth."

The motivational atmosphere of CF gyms is one of the primary reasons for developing the TCC/PSKC partnership. Research into CF has shown that the motivation for engaging in CF is similar to the motivation for participating in competitive sports, which may lead to long-term adherence to CF (Fisher et al., 2017). CF training has also been associated with accepting and overcoming challenges, commitment, connection with the CF community, self-empowerment, & transformation (Simpson et al., 2017).

## Literature Review

Historically, research into the impact of exercise as an adjuvant therapy for SUD/OUD has been limited and sporadic. However, recent studies have begun to shed light on the potential benefits of exercise programs tailored to individuals in recovery. These programs have shown promise in enhancing psychological well-being, reducing depressive symptoms, and improving overall health. Moreover, the emergence of the Recovery Capital concept has emphasized the importance of social, personal, and environmental factors in successful recovery journeys.
In the context of CrossFit (CF) as an exercise modality, there is preliminary evidence suggesting that its high-intensity nature and sense of community may contribute positively to recovery processes. While more research is required to validate these findings, the notion of incorporating exercise programs into SUD/OUD treatment to improve overall health and RC is gaining traction.

*Exercise and Substance Use Disorder (SUD) / Opioid Use Disorder (OUD)*

The integration of non-pharmaceutical adjuvant therapies for addiction, particularly exercise, has been a topic of interest since the late 1970s and early 1980s. Initial studies primarily focused on alcohol or nicotine dependence, with promising results. For instance, a study in 1982 found that individuals in an alcohol abuse program who engaged in exercise programs saw increases in overall fitness. The authors were also able to anecdotally note that those who went through the fitness program maintained abstinence from alcohol after 3 and 6 months better than those who did not go through the program. (Sinyor et al., 1982). The authors noted the connection between exercise and abstinence remained unclear, with debate whether physical fitness or participation itself contributed to improved outcomes.

In 1993, a comprehensive health promotion program in a correctional facility introduced exercise for female inmates with a history of drug abuse, leading to enhancements in psychological well-being,

self-esteem, and relapse prevention skills (Peterson & Johnstone, 1995). Further exploration of exercise as adjuvant therapy for SUD/OUD emerged in 1995, studying weight training and its therapeutic benefits. This study reported that strength gains were associated with fewer depressive symptoms, potentially related to the mastery effect of exercise (Palmer et al., 1995).

Research into the role of exercise as an adjuvant therapy remained sparse through the 1990s into the early 2000s. However, the emerging opioid crisis appears to have spurred renewed interest in adjuvant therapies for SUD in the early 2000s. Studies began examining exercise's influence on behavior change, attitudes, and barriers to exercise programs for alcohol use disorder (Read et al., 2001). A Dutch study found that positive body image and peer group influence positively impacted adherence to exercise programs and long-term abstinence from alcohol (Roessler, 2010).

In 2011, a Norwegian study introduced tailored exercise programs for individuals with SUD, highlighting the importance of enjoyment in exercise adherence and mastery's role in positive outcomes (Mamen et al., 2011). Research in 2013 focused on an inpatient methamphetamine addiction treatment program, demonstrating the feasibility and efficacy of exercise programs within clinical settings (Dolezal et al., 2013).

However, despite these positive trends, systematic reviews acknowledged limitations in empirical evidence and a lack of focus on exercise's relationship with SUD outcomes (Colledge et al., 2018). More recent studies have begun examining exercise's impact on cardiovascular health among those with SUD, recognizing the importance of addressing lifestyle diseases in this population (Unhjem et al., 2014).

*Recovery Capital (RC)*

The concept of Recovery Capital (RC) emerged as a multidimensional framework, pioneered by Granfield and Cloud (1999). RC encompasses personal, family, and community factors influencing long-term recovery. Subsequent research connected RC with life span trajectories, highlighting social capital's role in recovery trajectories (Cloud & Granfield, 2004).

The concept of RC continued to evolve, incorporating negative recovery capital, and emphasizing its impact on addiction services' long-term success (Cloud & Granfield, 2008). While attempts to quantify and measure RC has been challenging, recent research calls for empirical, culturally appropriate approaches to better understand RC's components (Best & Hennessy, 2022; Hennessy, 2017).

*CrossFit (CF) as a Modality*

Research on CrossFit's effectiveness is limited, with existing studies primarily focusing on physiological responses, performance metrics, and psycho-social behavior. A 2018 meta-analysis highlighted the lack of quality, unbiased research on CF but suggested associations with community, satisfaction, and motivation (Claudino et al., 2018).

High-intensity exercise's physiological benefits, including improved V02max, insulin sensitivity, and cardiovascular health, make it an attractive strategy. Studies suggest that high-intensity training's enjoyment leads to long-term adherence, providing a potential avenue for health promotion (Heinrich et al., 2014; Kessler et al., 2012).

Despite limited research, CF's social environment is highlighted as potentially important for adherence and health promotion in recovery (Lautner et al., 2021). The media analysis acknowledges the promise of CF's exercise and social support elements for supporting individuals in recovery, even though its effectiveness as a treatment tool is yet to be established (Lautner et al., 2020).

In conclusion, research on exercise as adjuvant therapy for SUD/OUD has evolved from early explorations to recent studies focusing on tailored exercise programs and their impact on various aspects of recovery. The concept of RC emerged as a valuable framework, emphasizing the importance of addressing personal, social, and community factors for long-term recovery success. While lacking comprehensive research, CrossFit shows potential benefits in terms of motivation, community, and adherence. Further research is needed to explore the full potential of exercise interventions, their mechanisms, and their role in enhancing recovery outcomes for individuals overcoming SUD/OUD.

## Methodology

This partnership was identified through an existing relationship with the Portsmouth Spartan Kettlebell Club, prior knowledge of the program, and various media outlets reporting on the program. Once an agreement & written consent to perform research was secured, two points of contact were identified. A link to the REDCap (Research Electronic Data Capture) survey was sent to the point of contact to distribute among eligible participants. The point of contact was not given specific instructions on distribution. Each point of contact has a unique understanding of their facility and population and therefore was given the freedom to distribute the survey link in a way that they felt would reach the most eligible participants.

The survey was separated into four sections. The initial section of the survey was demographic information. Demographic information included:
- Age
- Race
- Ethnicity
- Gender
- Education
- Marital status
- Employment

The next sections were questions regarding the participant's substance use history and if the participant had any experience with recovery before working with TCC. The survey then asks questions about current well-being and the potential for a return to substance abuse. The closing section of the survey is a brief assessment of the recovery capital (BARC-10) tool.

The BARC-10 is a 10-item measure that provides an index of recovery progress and may help measure the positive outcome benefits as individuals recover from SUD (Vilsaint et al., 2016). The BARC-10 was chosen over a similar 50-item measure titled Assessment of Recovery Capital (ARC). While the ARC may provide more data, for the sake of the participant's time, the validated BARC-10 was selected.

The survey was made available online through the University of Kentucky's Center for Clinical & Translational Science REDCap database system. There were no paper copies of the survey produced or processed into the database. The survey was distributed via a link that was made available through a facility-wide announcement and then daily reminders.

The study population was limited to those 18 years or older who are currently enrolled at TCC or who have previously completed the recovery program at TCC. There are no qualifiers for the program other than enrollment in an in-patient treatment program at TCC.

## Results

The respondents to our survey were largely female (60.8%) between either the ages of 35-44 (59%) or 25-34 (31%). A large majority of respondents reported working full-time (76.5%) or part-time (15.7%). Many from this population either graduated from high school (33.3%) or completed some post-secondary education (39.2%). The marital status of the study population is largely reported as single (35.3%), in a long-term relationship (25.5%), or married (25.4%).

*Table 1. Demographics of the Participants*

| Age (n = 51) | |
|---|---|
| 18-24 | 0 |
| 25-34 | 16 (31.4%) |
| 35-44 | 30 (58.8%) |
| 45+ | 5 (10%) |
| **Gender** | |
| Male | 20 (39.2%) |
| Female | 31(60.8%) |
| **Education** | |
| No HS diploma | 5 (9.8%) |
| HS diploma | 17 (33.3%) |
| Some post-secondary | 20 (39.2%) |
| Bachelors or Associate | 6 (11.8%) |
| Other | 3 (5.9%) |
| **Marital Status** | |
| Married | 13 (25.4%) |
| Divorced | 7 (13.7%) |
| Long-term relationship | 13 (25.5%) |
| Separated | 0 |

| Single | 18 (35.3%) |
|---|---|
| Prefer to not say | 0 |

Survey participants were asked which substance they primarily abused before enrolling in the TCC. Most respondents reported abusing heroin (52.9%), non-prescription painkillers (43.1%), cocaine/crack (39.2%), marijuana (39.2), non-prescription stimulants (43.1%), non-prescription sedatives (27.5%), non-prescription suboxone (25.5%), and methadone (25.5%). Tobacco was included in the survey but was not included in the analysis since it is a legal substance.

Our sample population was asked a series of questions regarding their previous history of substance abuse and recovery attempts. Most of our population (66%) reported at least 1 previous episode of a substance overdose. Much of our population (84%) responded that this was not their first time in treatment nor their first time attempting to recover from SUD (84%). The majority of our survey (66%) reported that at some point in time in their history of SUD, they had stopped abusing substances for at least 1 year.

One of the data points that stands out in this study is the number of respondents in the program who have reported an overdose and who have had multiple attempts at recovery. 66% of all respondents and 69% of those in the program report at least 1 instance of overdose. 85% of those in the program also report that the current treatment program they are enrolled in is not their first attempt at recovery. These data points would indicate that those who choose to join the program may have a long history of SUD and therefore understand the need for adjuvant therapies for long-term success.

One aspect that has been reported in the literature is the overall poor health, regardless of metric, of those who are in SUD treatment programs. Of those in the CF program, 58% of respondents reported being in excellent or very good health compared to only 36% of those not in the program.

 The survey asked a series of questions regarding the feelings of respondents over the last 2 weeks before taking the survey. Those in the CF program reported not having feelings of hopelessness and depression (77%) within the last two weeks as compared to those not in the program (48%). Those in the program also reported not having any feelings of losing interest or not having pleasure in doing things at a slightly higher rate (77%) than those not in the program (70%).

One of the larger differences in groups in the BARC-10 questions regards the amount of energy needed for self-appointed tasks. Those in the program overwhelmingly report having higher energy levels (88%) than those not in the program (70%).
A challenge of long-term recovery is the lack of meaning, fulfillment, or challenge in life without the use of drugs or alcohol. Those in the program tend to strongly agree that life is challenging and fulfilling without drugs and alcohol (69%) at a higher rate than those, not in the program (48%).

**Discussion**

The study's findings suggest that the PSKC/TCC exercise program may positively impact participants' overall health and well-being. While the program's exact mechanisms require further investigation, specifically the impact of exercise intensity on RC, the potential to enhance Recovery

Capital emerges as a crucial aspect. Improved energy levels, a reduced sense of hopelessness, and increased feelings of fulfillment without substance use indicate the potential of exercise interventions to bolster long-term recovery.

*Recommendations*

Integrating some type of exercise programs into SUD/OUD recovery strategies demonstrates the potential to improve patients' overall health and well-being. These programs should be designed to not only enhance physical fitness but also contribute positively to Recovery Capital. As part of a comprehensive approach to SUD/OUD treatment, guided exercise interventions have the potential to address the critical need for sustained recovery and improved long-term health outcomes. Future research should delve into the specifics of exercise regimens, longitudinal outcomes, and the social dynamics within such programs to enhance their effectiveness in enhancing Recovery Capital and overall well-being.

*Conclusion*

The challenges of achieving sustained sobriety in individuals recovering from SUD or OUD underscore the need for effective adjuvant therapies that can improve recovery outcomes. RC has emerged as a concept that encompasses the multifaceted factors contributing to successful long-term recovery. Our study explored the potential impact of a high-intensity exercise program, specifically a partnership between TCC and PSKC, on the recovery progress and RC of individuals in SUD/OUD treatment.

Our findings revealed that participants in the exercise program exhibited positive trends in their well-being, including reduced feelings of hopelessness and depression, as well as enhanced energy levels and challenges associated with fulfilling and meaningful lives without substance abuse. Notably, the program's stress-inducing nature seemed to positively impact RC, potentially due to the satisfaction derived from mastering challenging tasks. While our study provides insights into the potential benefits of this exercise program, further research is needed to elucidate the mechanisms through which it influences RC and long-term recovery.

Our study contributes to the growing body of research exploring the potential of exercise programs, such as the TCC/PSKC partnership, in enhancing recovery outcomes for individuals with SUD/OUD. While we acknowledge the limitations of our study, including sample size and survey-based methodology, the results underscore the importance of further investigation into the specific impacts of exercise on RC and long-term recovery success. Ultimately, the pursuit of effective, holistic treatment strategies that address both physical and psychological well-being remains crucial in addressing the challenges posed by SUD and OUD.

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**(Peer-Reviewed Article)**

## Pedagogical Considerations between Teaching Fitness and in Higher Education

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### Abstract

The purpose of this essay is to explore synergy between the pedagogy of teaching group fitness classes and that of teaching in higher education (i.e., undergraduate and graduate courses). The authors are both faculty and group fitness instructors. Through a brief review of literature, personal experiences as group fitness instructors, and perspectives of other faculty who teach fitness, the essay sought to explore pedagogical considerations between teaching fitness and teaching in higher education. Instructional differences, similarities, and overlaps were considered. In addition, teaching training and pandemic pivoting were also explored. The authors concluded with a call for more scholarly discourse on teaching in group fitness and higher education.

*Keywords*: group fitness, pandemic, instruction, college teaching, higher education

**Pedagogical Considerations between Teaching Fitness and in Higher Education**

The purpose of this inquiry is to explore synergy between the pedagogy of teaching group fitness classes and that of teaching in higher education (i.e., undergraduate and graduate courses). Both authors are certified fitness instructors who teach weekly in both group fitness (up to seven classes on four days per week) and higher education classrooms, and sought to determine how the pedagogy of fitness influences teaching in higher education and vice versa. We teach different audiences in group fitness, including high school students, college students, and people of all ages in our communities. There is limited research about the pedagogy of group fitness instruction. In defining *pedagogy*, Tinning (2008) suggested the term is "amorphous" and thus open to interpretation (p. 412). He described pedagogy as "fundamentally concerned with the processes of knowledge (re)production" (Tinning 2008, p. 416). Educators can apply the art of teaching in different settings, and we aimed to discover how teaching group fitness strengthens teaching in higher education.

College faculty are trained in discipline-specific courses, with limited training on pedagogy, the art of teaching. Jensen (2011) explained, "The pedagogical training typically includes courses in child and adolescent development, multicultural and special needs education, cognitive psychology, behavioral theories, classroom management, the use of technology in the classroom, and curriculum design" whereas higher education instructors need at least a masters degree to teach at the college level, and a doctorate to teach at the graduate level (p. 31). However, she recognized that many higher education institutions require a teaching demonstration by its candidates for faculty positions. She also reviewed studies on these phenomena and discovered that years of experience and advanced education do not improve teaching quality without sufficient pedagogical training (Jensen, 2011).

In their review of the literature on the role of fitness professionals in public health, De Lyon et al. (2017) argued that there is a dearth of research "on the effectiveness of fitness professionals' practice, education, training and development" in the context of content delivery (p. 315). They highlighted that fitness instructors have a high level of professional autonomy with their instruction, which is like how faculty members have academic freedom in teaching and research (De Lyon et al., 2017). Petrzela (2019), a dual faculty member and fitness instructor, commented, "Like most classroom educators, [fitness] instructors spend a great deal of time alone in studios with their students" (Today section, para. 5). She also noted how fitness instructors commute between different gyms and studios, like the adjunct faculty lifestyle (Petrzela, 2019).

In June 2021, Dr. Gina Garcia was interviewed for the *Student Success Podcast* by Al Solano about student success and equity. Garcia, an associate professor of higher education at the University of Pittsburgh, described the influence of fitness on herself and her teaching. First, she introduced how fitness influenced her life:

> Fitness keeps me centered. I take a break every day at 12 o'clock and work
> out. It's been able to keep me grounded and also healthy and emotionally, mentally,
> physically...It keeps me going, refreshes my mind. It's good for me, obviously my body, but
> really is like the driver of everything else that I do. (Solano, 2021)

She described how being a group fitness instructor was part of her identity. Finally, she tied her expertise as a fitness instructor to teaching as a higher education faculty member when applying for faculty positions: "The very first teaching statement that…I ever wrote was actually wrapped around pedagogy of teaching fitness and how it really had informed my pedagogy" (Solano, 2021). Quinn and Maddox (2022) also made connections between their teaching practice as yoga instructors and faculty in higher education; thus, this connection may be of interest to other scholars too.

There are similarities between group fitness and classroom instruction, and key skills group exercise instructors develop through teaching, including communication, leadership, and cueing for safety and form (Riebe, 2012). In her reflection of lessons learned through teaching fitness, Creveling (2018) described the importance of maintaining energy levels and being "on" throughout the class. Body language is important, and "the way an instructor carries themselves can completely change how students respond" (Creveling, 2018, para. 11). As much is expected of a faculty member who leads a class. Instructors must also watch each student during a class to see if they understand the material or what to do, as students are not always at the same level of knowledge or practice. She also highlighted the importance of teaching evaluations to understand how instructors are perceived and identify areas for improvement, and time spent planning for class (Creveling, 2018).

There is a structure to class design in both group fitness and higher education. The Athletics and Fitness Association of America (AFAA) (2019) defined five components of a group fitness class design: intro, movement prep, body of workout, transition, and outro. College courses are often structured through a syllabus, with specific course objectives to organize topics and materials, and assignments to assess students' learning outcomes. Yoke and Armbruster (2020) highlighted the six ethical practice guidelines for group fitness instructors set by the IDEA Health and Fitness Association, which include

1. Always be guided by the best interests of the group while still acknowledging individuals.
2. Provide a safe exercise environment.
3. Obtain the education and training necessary to lead group exercise.
4. Use truth, fairness, and integrity to guide all professional decisions and relationships.
5. Maintain appropriate professional boundaries.
6. Uphold a professional image through conduct and appearance. (pp. 371-372)

While these guidelines are tied to the group fitness setting, they are also applicable to faculty instruction in a higher education classroom. IDEA (2021) strongly encourages fitness professionals to be aware of current research in the field, which is very comparable to faculty who both consume and conduct research in the areas of expertise they teach. Professors intend for students to learn what is stated in the syllabus, including the course description and objectives (Rubin, 2016). They provide a safe learning environment, must have the education and credentials to teach the subject at the college or graduate levels, and similarly could apply the last three ethical guidelines to their role as educators. Higher education course design is based on the concept of academic freedom, in which faculty can select teaching methods, content, and assessment of student learning with little oversight, with the exception of following institutional policies (e.g., grading) and maintaining decorum (Finn, 2020).

Through the lens of a fitness participant, Gonzalez (2015) discovered experiences through CrossFit that enhanced her teaching practices in the classroom. She focused on four areas that made her think differently about pedagogy. First, she felt it was important to have differentiated options for how to approach learning something new, or in the classroom setting, using tiered or scaffolding in assignments. Secondly, she suggested the importance of variety in terms of how content is taught and how assignments are designed. Third, in the spirit of gamification, Gonzalez (2015) recommended that students be able to track their progress, possibly earning rewards (e.g., badges, advancing levels like in a video game) as they meet learning milestones. Lastly, she encouraged friendly competition for students to have extrinsic motivation. She explained, "It's easy to draw parallels between fitness and education. Achieving either one is a complex task, especially if we're trying to help lots of people from different backgrounds get great results" (Gonzalez, 2015, para. 19). Parallels were especially evident during the COVID-19 pandemic.

## COVID-19 Instructional Parallels

Since March 2020, the word "pivot" has dominated how people around the world had to adapt "the way things were done," which in instruction often meant to move from in-person to virtual modalities. This was the case both for teaching in higher education and fitness settings. Prior to the pandemic, most group fitness offerings were offered in-person (Guo & Fussell, 2022). Of course, virtual options have existed, but someone who is streaming a live workout or on-demand recording from home is not truly in a group setting.

Andersson and Andreasson (2021) explored how fitness instructors navigated their identities in this role and how they approached teaching during the pandemic. They led four focused group discussions with 14 Les Mills International certified instructors representing nine countries. While moving classes outdoors was a potential safe option during the pandemic, that was not always possible due to weather or other restrictions; thus, many instructors taught online as a "better than nothing" option (Andersson

& Andreasson, 2021, p. 7). These instructors also mentioned feeling drained because it was hard to get feedback from members of the class online. They struggled with feeling like they provided quality instruction while navigating COVID-19 restrictions (e.g., wearing a mask in-person in a reduced capacity class). Attending a group fitness class is often a social activity, but many instructors experienced low attendance during the pandemic. Because the physical space for a class was absent, instructors struggled to keep the beat and stream music through technology. Yet, participants in this study expressed that they gained new skills that would improve their teaching moving forward (Andersson & Andreasson, 2021). Like the fitness instructors in this study, faculty adapted courses to various hybrid and virtual modalities, both synchronous and asynchronous (Miller et al., 2020). Skills learned through changing instructional modalities helped faculty also.

In their study of 11 fitness instructors' and 14 clients' experiences with livestreamed group fitness, Guo and Fussell (2022) discovered that online group fitness instruction lessened the use of nonverbal communication, and instructors felt like they could not do as much to customize the class experience for clients based on injuries or other needs. Fitness instructors found moving around the physical space and observing clients' movements was significantly harder while using technology to stream a live class. Similar to faculty's not having equipment or technology at home needed to teach virtually, many fitness instructors did not have the appropriate physical space or props to teach (Guo & Fussell, 2022). Instructors struggled with maintaining energy in an online environment and building rapport with new clients. College and fitness instructors both found it difficult to teach when clients'/students' cameras were off in the virtual environment (Guo & Fussell, 2022). The research indicated how much feedback is valued by both class participants, and how much instructors wish to provide it.

In many countries worldwide, online instruction and appropriate technology was not ready for such a drastic change in instruction. Many faculty had to rapidly shift to online teaching (Al-Naabi et al., 2021; Crawford et al., 2021). Al-Naabi et al. (2021) observed that many instructors were unprepared to teach online due to lack of technical experience or knowledge of online teaching pedagogies. Yet, despite these challenges, Al-Naabi et al. (2021) noted that they provided an important opportunity for educators to access professional development and create "innovative pedagogical strategies" (Introduction, para. 3). These included using external tools to learning management systems, team-teaching, and implementing formative assessments to adjust teaching to students' comprehension throughout a course (Fridley et al., 2023; Stokowski et al., 2022). Yet, these approaches do not always make sense for face-to-face instruction. Upon reflection, we suggest faculty in higher education consider expanding pedagogical knowledge through fitness instructor training.

## Pedagogical Observations

Both authors teach different types of fitness (i.e., yoga, yoga sculpt, trampoline, barre, suspension training). Through our perspectives and varied training, we thoughtfully reflected on what is unique to the pedagogy of fitness and the pedagogy of teaching in higher education, plus where we see or have experienced overlap. Table 1 displays the pedagogical differences in these two fields in our exploration of this inquiry.

*Table 1. Pedagogical Differences in Instruction for Group Fitness and Higher Education*

| Fitness | Higher Education |
| --- | --- |
| Formative Feedback | Summative Feedback |
| Honor the Body | Use of Technology |
| Mindfulness, Focus on Present | Focus on Future |
| Sense of Place: Mat | Sense of Place: Desk |
| Teaching Practice in Training | Discipline-Specific Training |
| Visual Cues | Presentation Slides |
| Verbal Cues | Lecturing, Silence as a Teaching Tool |
| Motivational Language to Inspire | Syllabus as a Guide |
| Clients Choose to Attend | Attendance Required |
| Ensure Physical Safety | Motivate Students to Learn vs. Earn Grades |

In our consideration of different instructional styles and approaches, we also found significant overlap in the pedagogies of fitness and higher education. These concepts include openness (e.g., to new music, curriculum); constant learning and continuing education; timing of content in the classroom; preparation, class design, and progress of learning objectives; credentials and training required to teach; adapt to trends and current issues in the fields; teach to every type of person in the class (e.g., ages, fitness levels, injuries, knowledge level); challenge students and clients to grow and learn; focus on specific areas (e.g., of the body, content); classes are structured but can be improvised as needed and adjusted to the mood of the room; the importance of atmosphere which can be beyond instructor control; flexibility and autonomy to design classes/academic freedom; modifications (e.g., for learning disabilities, injuries, pain, abilities); no showing has a cost (e.g., monetarily, experience and knowledge is missed); expectations of instructor appearance and dress; confidence in leading the class and trusting one's teaching abilities; know names of people in the room and make them feel valued for showing up; be authentic; time-limited focus on outcomes (e.g., one fitness class or length of college course); and use of direct instruction and modeling.

Professional development for fitness instructors might broadly enhance faculty teaching practices. In "Top Tier Teaching: Simple Ways to Elevate Your Classes," O'Dell (2022) emphasized four focus points: 1) create the right environment where people want to be, 2) options, 3) cueing, and 4) flipping the focus. To set an environment, instructors should welcome students/clients and make them feel comfortable in the room. She described how energy is contagious and must be set by the instructor, who "flips [the] instructor switch" on and controls the environment, regardless of what has happened before class time (O'Dell, 2022, slide 6). This involves being prepared and on time for class, playing music before and after class, avoiding a monotone voice, using the body as a teaching tool (e.g., moving around the room, nonverbal communication), being available and accessible before and after class, and having fun.

Options are ways for students/clients to effectively engage in movement within the fitness context (e.g., levels of challenge for an exercise), or learning in the higher education context (e.g., offering different types of assignments for credit). They make the class more enjoyable and more personalized (O'Dell, 2022). In fitness, cueing is critical while teaching, but often takes significant practice to master. It is not always taught in basic fitness trainings. This is like pacing in a college course, guiding students through materials during a class period. O'Dell (2022) suggested that cueing requires being direct and clear with language, advertising what is coming next, and being bossy to control the room.

In college teaching, instructors teach students information, are clear with assignment directions, and make sure students know what is expected through the course. To clarify confusion, O'Dell (2022) emphasized saying content and directions in different ways to reach various people and using imagery. She also highlighted the importance of building rapport with students by learning their names and engaging with them by name throughout class, plus staying upbeat while not using 'don't' or other type of negative language (O'Dell, 2022, slide 22). If an instructor is positive and engaging, they can better motivate students/clients in the class.

The final top tier teaching tip is flipping the focus. O'Dell (2022) emphasized that instructors must be student-centered, and that the class should be about "getting people to do what they think they can't do" rather than be about the instructor's showing off what they do or know (slide 27). Instructors need to be visible, active, and use eye contact. For a successful fitness class, Yoke and Armbruster (2020) argued the need for instructors to balance being teacher-centered and student-centered. They explained, "The teacher-centered instructor focuses on developing relationships with students that are anchored in intellectual explorations of material" whereas "the student-centered instructor…strives to establish an atmosphere of independence, encouragement, attainable goals, and social connectedness" (p. 13). A talented instructor demonstrates knowledge to everyone in the class while still providing individualized instruction for those who are struggling, something relatable to the group fitness and college/university environments (Yoke & Armbruster, 2020). In addition, Quinn and Maddox (2022) called for the concept of embodiment in the higher education classroom, connecting their expertise in yoga with college teaching. In yoga and other fitness classes, instructors provide space for participants to connect mind and body, and the college classroom could also be a place where students connect learning with their physicality, which embraces a holistic developmental approach through instruction (Quinn & Maddox, 2022).

Having and applying these skills in both fitness and higher education may require different amounts of time or more practice to master. For example, having confidence teaching in one classroom did not necessarily translate to our confidence in the other setting without practice. There are certainly many other possible synergies between these two fields, but our initial reflection and observations demonstrate that the pedagogies of fitness and higher education have much in common.

Higher education is an interdisciplinary field and draws from various fields for theories and pedagogical practices (Lund et al., 2020). Finding similarities between group fitness instruction and teaching in college and graduate school classrooms can enhance how faculty consider teaching approaches, styles, and strategies. There are also distinct differences, and faculty who teach in higher education may find group fitness instructor training beneficial to improving teaching practice. For example, fitness instructors learn how to teach and practice teaching skills in training, whereas faculty

may only learn discipline-specific content in a doctoral program but not how to teach in their fields. Classes on college teaching may be offered at institutions, but are not necessarily required in terminal degrees' curricula. Scholarly discourse about how fitness instruction and teaching practices in higher education influence each other are important, as these fields both have congruent foundations.

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**(Peer-Reviewed Article)**

## Athletic Trainers' Perceptions About Concussion Trends, Injury Prevention and Care in Female Athletics

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### Abstract

Past research suggested that female athletes have an increased likelihood of sustaining a concussion compared to their male counterparts. However, more media attention and research are focused on head injuries in football and other men's sports, while female head injuries were often neglected. The purpose of this study is to investigate the concussion trend, management plans, clinical care practices, and risk concerns associated with head injuries in female collegiate sports. Twenty certified athletic trainers (CATs) provided responses on a 12-item questionnaire online survey. The results showed 50% of surveyed athletic trainers didn't observe a significant difference between male and female concussion rates, yet there was little to no specialization in clinical care for female athletes. About 75% of athletic trainers reported that the high concussion rates in female athletes have not been a priority for the universities. Recommendations from CATs emphasized the need for including gender-based concussion research for effectively providing care and support to female concussed athletes. Including female specific research data as an educational tool and standard for care is the best way to impact best practices.

### Introduction

In 2022, sports fans across the nation watched as Tua Tagovailoa showed apparent symptoms of a head injury after a quarterback sack (Belson, 2022). Tagovailoa was struggling to regain balance and suffered involuntary movements of his extremities yet remained in the game at least ten additional minutes before being rushed to a local medical center. In the same season, DeVante Parker's obvious concussion symptoms failed to signal concern as he required support from a teammate to stand. Following these similar incidents, many raised questions about current concussion protocols of athletic leagues. With the inherent risk of contact sports having known for the inevitable risks, are current concussion protocols effective for more positive prognosis? What expertise can contribute to developing a concussion risk management plan that further enhances player safety and injury prevention? With approximately 5-10% of all athletes sustaining concussions per year due to sports (University of Michigan Health, 2023; Gessel et. al, 2007; Brain Injury Research Institute, 2023), are more evolving policy and strategy are required to ensure the most positive post-injury outcomes at all levels.

Arguably, most of the concussion awareness is credited to the media streaming from male elite and professional athletics. However, their female counterparts are more likely to suffer a high-impact concussion playing an equivalent or comparable sport (Covassian et. al, 2016). Accompanied by an increasing likelihood of concussion for female athletes is longer recovery trajectories with escalated severity of memory and cognitive impairments. As female athletes remain most vulnerable to the

worst of these injuries, they are underrepresented in concussion research (DeLauro et al., 2022). This suggests female athletes, already at-risk, could also be disproportionately affected by the universal concussion clinical care that mainly based on studies of men's concussion experiences.

*Purpose of the Study*

This study examined a small sample of collegiate athletic trainers' perceptions on their institution's concussion policies, treatment practices, and preventive measures for female athletes. The researchers aimed to determine the level of protocol protection provided for female athletes and other contributing factors that could elevate risk of concussion or affect the effectiveness of treatment to female athletes in comparison to their male counterparts. Since research on the varying biological differences between females and males and its impact on concussions was limited in numbers, it was hoped that opinions given by athletic trainers could offer more insights to improve current treatment practices for supporting concussed athletes of both genders.

## Review of Literature

*Concussion Treatment Protocol and Policies*

In response to heightened concerns regarding college athletes and the long-term effects of sustained concussions, many institutions and associations have required their members to enforce concussion policies and protocol (Smith et al., 2020). The NCAA is one of those associations that recently updated its plan for 2020. Concussion management plans are designed with components that encourage positive prognosis in athletes who sustained concussion from diagnosing to post-injury. Though the implementation of these policies and protocols can significantly change the trajectory of an athlete's recovery, only limited research has been published to share the extent to which these plans are followed and their effectiveness.

Research suggests that compliance of required concussion policies and protocols may be high but can be improved. A study conducted by Buckley et. al (2017) examined the concussion management plan established by sixty-five universities that comprise of the Power 5 conferences. Following requirements under the NCAA published prior to 2016, management plans for these institutions must include the components of student-athlete education on head-trauma symptoms, protocols for removing athletes with suspected concussions from activity effective immediately upon incident, and qualified physicians to make RTP (return to play) evaluative decisions (Smith et al., 2020). With an increase in research on changing best practices for concussion treatment, additional recommendations were made in January 2016 to include procedures such as baseline testing prior to participation, limiting risk of head trauma, RTL (return to learn) policies, reviewing procedures annually, and obtaining an authorized compliance certificate (Buckey et al. 2017). It was found that those 65 institutions' policies showed a significant variance in content length. This may imply that certain institutions' plans or strategies are relatively too simple or incomplete. The lowest compliance was observed within the "Return to Learn" criterion, which includes components such as personnel arranging academic schedule accommodations (73.8% compliance) and re-evaluation by a physician if academic performance was negatively impacted after a two-week time frame (76.9% compliance). Documentation of provided clinical care to the injured athlete also met below-standard compliance.

Analysis of policy at community colleges displayed a more significant level of inadequate protections. Paddack et al. (2016) collected responses of athletic training personnel at their respective institutions. Data suggested that only one half of athletic trainers were familiar with and consistently updated concussion management policy (Paddack et. al, 2016). Of those respondents who were knowledgeable of policy, all believed that their policies met the criteria of their member conference in addition to the NCAA. Yet less than one third stated that their institutions prioritized academic accommodations for athletes who sustained a concussion. Data also suggested that there was a significant correlation between the size of athletic training staffs and whether concussed athletes received academic modifications.

Both studies concluded that there is room for substantial improvements in policies and procedures to offer maximum protection for collegiate athletes. Consistent enforcement in safety protocols and compliance can assure that all college athletes are subject to the minimum risk possible. Uniform verbiage and description within policy can help enhance equitable understanding of policy and expectations from initial impact to post-injury observation. The utilization of universal medical instruments and measurements can also prevent athletes from being subject to RTP too soon.

*Gender-specific Concerns Related to Concussion*

Though both genders are susceptible to concussions, policies and protocol implementation are exceptionally important for female athletes. Epidemiological trends for concussions have consistently shown that females are more likely to sustain concussions during comparable caliber sports than their male counterparts. In a study of contact sports, Covassin et. al (2016) observed that female athletes had an overall calculated 1.4 greater incidence rate of concussion sustainment. Some of the more significant figures were observed with female softball, basketball, and soccer players. Each sport had an incidence rate equivalent or greater than 1.5 compared to males in the same sport. This range of incident ratios are supported by Hannah et. al (2021) which produced the highest discrepancy. Females observed in this study sustained concussions at a 1.62 rate comparative to male counterparts.

Research also showed considerable differences in patterns of recovery from concussions. Data indicated that female athletes are more impacted by the burden of symptoms. Symptoms differ in both somatic and cognitive symptoms. Using the SCAT-5 Post Concussion Scale, Bunt et. al (2020) collected clinical data on 132 participants of varying demographics who received a concussion diagnosis within a 30-day timeframe. Among 22 specified examined symptoms, females reported higher occurrence rates and heightened severity among 15 of those symptoms. Some of the greater statistical effects included an increase of emotion (72%), fatigue (72%), and sensitivity to light (69%) (Bunt et. al, 2020). Though the effect sizes were noteworthy, pre-existing conditions and lack of neuropsychological assessment in concussions studies were also worth consideration.

The underrepresentation of female athletes in concussion research continues to be a disadvantage. Female athletes continue to be absent from concussion impact research for prominent and distinguished publications. Examining more than 171 individual publications from three highly influential journals (National Athletic Trainer's Association, International Conference for Concussion in Sport, and American Medical Society for Sports Medicine), D'Lauro et. al (2022) concluded that 40.4% of concussion case studies had no female participants. Of those studies that include females, 80.1% of the data composition was still focused on males.

This lack of representation in concussion study has major underlying impacts on a multitude of aspects in embedding a concussion plan. The corpus callosum, that is responsible for the allowance of interhemispheric connections, varies between the genders. In general, the corpus callosum in female's brain takes up a larger mass comparative to the male (Solomito et. al, 2019). When concussion occurs, this region is more significantly affected on females. In addition, females usually had shorter and weakened neck muscles paired with smaller head mass (Collins et. al, 2014). Due to these physiological characteristics, concussion could impair a female athlete more severely, thus entail an extended recovery trajectory. These characteristics highlights the crucial importance of needing more female concussion patients to be included in the medical studies.

With studies highlighting anatomical variance between the genders, additional or specialized equipment would be appropriate to provide females participating in high contact sports. Research by Tierney et. al. (2008) demonstrates how companies that design athletic equipment are recognizing and making efforts to provide adequate protections. Such protections are imperative to address the differences in affected regions of the brain and trunk.

By gaining awareness of the differences between male and female anatomical response to concussions, perhaps we may confirm that females and males may need variability in treatment of concussions. With only one gender dominating concussion research, females may be receiving treatment under a policy that is mostly tailored to meet the needs and increased positive prognosis for men. By balancing the intake of information from both females and males, it can result more targeted procedures, assessment, and treatment for both genders.

## Method

Data was collected from the beginning of February to mid-April in 2023.  There are over three hundred fifty NCAA Division-I affiliated institutions; and each institution has several certified athletic trainers serving the student-athletes. The researchers utilized the campus directory listed in institutions' official athletic websites and contacted one athletic trainer from each of the 120 randomly chosen institutions (among the Division-I schools) via email. The trainers were also randomly selected from each institution's trainer pool, yet a manipulation was implemented to ensure that an equitable distribution of male and female participants was invited. Overall,22    athletic    trainers representing 11 Division-I conferences participated in the study.  Each athletic trainer was sent a questionnaire powered by Google Form to respond. This online delivery method was chosen for its ease of completion and participants' familiarity on the platform. Google Form was utilized among all selected institutions and offered adequate level of security for data protection. Follow-up emails were sent to chosen participants to encourage participation.

The online survey covered 13 questions requiring different responses (i.e., multiple fixed-choice, checkbox, and open-ended questions). Question topics covered included the following: (1) perceived level of protocol compliance, (2) differences in concussion cases based on gender, (3) treatment differences based on gender, (4) status of equipment update, (5) type of sports with highest concussion cases, (6) relevance of concussion injuries among female athletes, (7) recommendations for best practices to deal with concussion and (8) participants' personal information (i.e., conference affiliation and primary role). Respondents were invited and encouraged to complete all questions before their final submission. This online survey was crafted based on the framework of past studies (Buckley et al., 2017; Covassin et al., 2016; D'Lauro et al, 2022; Rodowicz et al, 2015) with an intent

to solicit insight on concussion incidences related to specific gender trends. The perspectives of the athletic trainers could help formulate recommendations to further decrease the elevated vulnerability of female athletes to head injuries.

## Results

The findings of this study can be subdivided into three categories: (a) information related to institutional concussion management policy, (b) comparison of current concussion data (male vs. female), and (c) future considerations related to care and injury prevention. Evaluating the fidelity and full application of a concussion management plan could directly impact the trajectory of recovery for the individual. Concussion management plans required by the NCAA have several concrete components that can provide positive outcomes after sustained concussions. Respondents were asked to provide the frequency of updates to their current concussion management plan. Of the current sample group, 50% of participants said that their institution updated that plan every 6 to 12 months. Each year, the NCAA holds a meeting to determine whether schools are updating their concussion management plan annually as warranted. The current statistics suggested that only half of sample institutions met the time requirement specified by the NCAA.

Participants were prompted to address the current practices and implementation of their concussion risk management plan by selecting one of the five levels of compliance. About 40% of respondents stated that their institution "completely" complies with the current concussion management plan. The rest of the 60% of institutions were in the stage between "mostly and sometime" comply, which means many have not achieved complete compliance. For this urgent compliance matter, the ideal target should be set at 100% fully complied. Any lapses in abiding protocols can put athletes in a more challenging prognosis and delay the timeframe of a student's return to study and play without adequate accommodations.

While comparing the concussion trends between both genders, 45% of participants stated they did not witness any significant difference between the rates of concussions between males and females. About 30% of trainers believed males are currently sustaining more concussions during practices or games, yet just a little less percentage (25%) of trainers thought that females were sustaining more concussions compared to their male counterparts. Female athletes were mostly likely to sustain concussion in the following three sports, soccer (100%), basketball (50%) and volleyball (30%) according to the participants' responses. In addition, only 30% of participants indicated that there had been equipment upgrades to proactively aid female athletes in preventing concussions. In Table 1, readers can find the eleven open responses on how female concussed athletes were treated differently to their male counterparts. The biggest difference can be found in dealing with the incident that eliminates the player from the playing field immediately.

*Table 1. Main differences in concussion treatment based on gender (n = 11)*

| Example | % and Number of Cases |
| --- | --- |
| Elimination from Competition Immediately at Injury | 27% (3) |
| Concussion Education/Resources | 18% (2) |

| | |
|---|---|
| Academic and Schedule Accommodations | 9% (1) |
| Medical Evaluation Before Return to Play | 9% (1) |
| Variance in Instruments Evaluating Concussion Symptoms | 9% (1) |
| System for Concussion Reporting/Data | 9% (1) |
| Protective Equipment Available | 9% (1) |
| Checkups/Follow ups with Clinical Staff | 9% (1) |

Seventeen participants offered their prioritized strategies and recommendations for reducing concussion incidences (see Table 2). Nine of those 17 (53%) suggested that the leading change should be about including female concussed patients in clinical study and research. Furthermore, six of those 17 believed the following two recommendations were also plausible, (1) having equipment upgrades, and (2) changing sports regulations and rules that accommodate both males and females.

*Table 2. Popular recommendations for reducing concussion occurrence among female athletes.*

| Recommendation | % (cases) |
|---|---|
| Involving Females in Concussion Research | 53% (9) |
| Having Equipment Upgrades | 35% (6) |
| Changing Rules and Regulations that Accommodate both Genders | 35% (6) |
| Variance and Addition of Trained Professionals | 12% (2) |
| Variance in Clinical Care | 27% (3) |
| Changing the Return to Play Policy | 6% (1) |

**Discussion and Conclusions**

The existence of concussions and their detrimental neurologic and neuropsychiatric effects are not an unfamiliar topic. Many viewers across the nation watched football players getting hurt and expressed their concerns on social media. Twitter feeds lit up when the delay in activation of concussion protocols occurred. Yet, when two U.S. Women's National Team soccer players Briana Scurry and Cindy Parlowe Cone both had to forfeit their athletic careers due to the unresolving effects of concussions, no media sparked the conversations about concussion injuries plaguing our female athletes. D'Lauro's (2022) study showed that female athletes are often excluded from the concussion case study research. Clinical care for concussion is also likely developed utilizing assessments and statistics collected from the male patients. Our findings showed the rate of concussion incidents among female athletes are just as high as male athletes. Female athletes were more likely under-

educated about the impact of concussion and the potential risk associated with their sports. Nineteen out of 22 trainers in this study stated no specialized variance in clinical care offering to the female athletes at their institution despite there could be gender-specific anatomical differences that may impact recovery trajectories. When speaking of finding the best way to protect female athletes in the future, we must have medical research being more inclusive by including more female concussion patients.

In many competitive contact sports, females are facing equitable threats as their male counterparts without updated protective gears and equipment. A scary fact was that many interviewed trainers did not recognize any differences in amount of concussion cases between female and male athletes. According to the NCAA's data (2019) male athletes made up 53% of the NCAA Division-1 athlete population. Technically, they would have a higher rate of concussion due to a greater total number of participation and involvement in football.  Yet, the number of female athletes sustained concussions was at a similar rate of males. Based on the calculation of Hannah et al. (2021), women had a higher likelihood of sustaining a concussion (at a 1.62 ratio) than their male counterparts (Hannah et. al, 2021). Unfortunately, the responses from the surveyed trainers clearly showed that institutions were far behind in complying with the necessary protocol and offering updated equipment to protect their athletes. Although there were valid comments   that highlighted the exceptional risks for concussion that collegiate female athletes face, unfortunately, that conversation was not commonly circulated because largest incidences of concussions are mostly associated in men's football (Miller, 2018). Only 25% of surveyed trainers considered female concussion incidence a prioritized discussion among their staff. Many may not realize that among college sports with highest concussions incidents, women's soccer and women's ice hockey were right there next to football (NCAA, 2014). This data did not even include cheerleading. There must be an intentional effort out there to fight against the societal stigma, champion for female athletes' safety, and raise the awareness of the concussion issue in female athletes. We are leaving female athletes in dangerous predicaments until we include them in longitudinal research to understand the best practices for treating and protecting them.

With the knowledge of anatomical differences that are directly correlated with concussions, it is important to employ gear and protective equipment that target the protection of specified areas. It was discouraging to witness that there was no specialized or updated equipment for female athletes to use in the last 2-3-year span according to some trainer participants. There are plenty of discussions about the development of football helmets to protect football players. Nevertheless, discussion on protective gear and playing rules regarding concussion and soccer was not so popular. The increase in cases of concussion in women's soccer could be attributed to the allowance of "heading" in plays. The sad news was that some available soft headgear utilized as an extra layer of protection did not serve their intended purpose. Players who wore certain headgear further increased their head acceleration speed by 10%, which aggravated their chance of head injuries. (Tierney et. al, 2008). So, wearing soft gear certainly is not the most efficient way to protect soccer participants, because players would assume they were well-protected and bumped at the ball and other recklessly. Rodowicz et al. (2014) had similar findings when examining the effectiveness of soft gear in women's lacrosse. These examples remind us about the importance of sport governing bodies, and institutions to examine the playing rules closely and monitor the adequacy of protective equipment and gears periodically.

*Limitations and Suggestions for Future Studies*

Of the respondents who were contacted via email to participate in this survey, only twenty-two respondents provided responses in the data set. The relatively small sample size could limit the ability to generalize strong conclusions. Without substantial available data on this topic, it is challenging to conclude whether the offered strategies and recommendations could increase protection for female athletes or not. A lack of conversation surrounding the severity and trend of female athletes' concussion injuries in collegiate athletics should be corrected. Often time, injury data on contact sports and information on treatment compliance were unpublished or inaccessible. The researchers would strongly amend for establishing an organized database to document compliance of protocol at each institution. Athletic trainers may consider studying more extensively on concussion injuries among female contact sports. Another vital approach for future study would be examining how institutions monitor concussed students' return for academic study.

In the meantime, there are realistic considerations for medical practitioners alike. It is important that practitioners first take on the challenge to "unlearn." For such a long period of time, clinical care for concussions has been standard with minimal variance. Recognizing that the typical recovery plan does not provide the most positive prognosis for each case is vital. A second recommendation would be establishing relationships. This includes working with higher education institutions, the NCAA, concussion experts, athletic equipment designers, etc. Such networking allows for streamlining information that can be a catalyst for immediate and futuristic change for female athletes.

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**(Peer-Reviewed Article)**

## Considerations to Improve College Student Involvement and Retention

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### Abstract

The primary objective of this assessment was to ascertain strategies for enhancing student engagement within their chosen academic disciplines in the college setting. A comprehensive review of the extant academic literature revealed a multitude of advantages associated with heightened student involvement in their collegiate pursuits, alongside a nuanced exploration of the challenges and corresponding remedial measures pertinent to students' engagement within their declared majors. Furthermore, the researchers conducted a systematic inquiry into the intricate interplay of depression, stress, and financial constraints, and their ramifications on both student success and the degree of commitment exhibited within their chosen areas of study. Throughout this case study, the analysis not only draws attention to its findings but also offers implications for prospective research endeavors, thereby extending the discourse on strategies to foster and bolster student engagement. Furthermore, this inquiry contributes a set of recommendations for enhancing the overall level of student involvement, resonating within the milieu of academic disciplines and offering insights for the amelioration of the student experience.

*Keywords:* college retention, college success, barriers to college, student engagement

### Introduction

In the discourse surrounding the collegiate experience, a common refrain often heard by those commencing their journey into higher education is, 'College is the best time of your life; they are the best years.' While this sentiment may resonate with some, the reality for many college students unveils a more intricate narrative. College, undoubtedly, represents a pivotal phase of self-expression, self-discovery, creative exploration, the formation of lifelong friendships, and the vital preparation for integration into the professional world. However, amidst these aspirations lie a host of formidable challenges often overshadowed by the utopian portrayal of the college years.

The quintessential image of the college experience—vibrant social life, intellectual engagement, and personal growth—is frequently eclipsed by the harsher realities of rigorous academic demands, sleepless nights, persistent stress, physical and emotional strains, and the ever-pervasive pangs of homesickness. A myriad of factors contribute to the complexities that students face as they endeavor to strike a harmonious balance between their academic commitments, personal lives, familial responsibilities, and extracurricular pursuits. These challenges can lead to a pervasive mismanagement of time and resources, exacerbating the burdens faced by college students.

The ramifications of this misalignment between expectations and reality encompass a spectrum of issues, including heightened stress levels, rising instances of depression, and a lack of adequate resources for pursuing one's chosen field of study. We must delve into these intricate aspects of the collegiate experience, understanding their impact on student involvement in the educational process and, in turn, exploring strategies to mitigate the challenges that students encounter during their academic journey.

**Review of Literature**

After the COVID-19 pandemic, many institutions migrated to 100% online facilitation, which made learning and engagement difficult for professors and students alike. Professors struggled with the abrupt transition forcing them to pursue new avenues in their delivery of education. Students struggled as well. According to a study conducted by the Center for Community College Student Engagement (CCCSE, 2021) on how Covid – 19 impacted college students, "Over one-third (34%) of spring 2021 respondents described their personal financial situation as worse than it was before the pandemic" (The continued impact, n.d.). COVID-19 also affected how many students attained income, and the financial strain caused students to seek out a variety of additional opportunities to sustain themselves financially, causing a decrease in educational activity. Lack of finances also generated a higher dropout rate due to failure to make payments on their education. Another impact that Covid – 19 gave rise to, was the students' feelings of safety. According to the CCCSE 59% of students surveyed had a response of not feeling safe in public situations or situations where they could not be spaced out more than six feet apart" (CCCSE, 2021). With most of the student body responding with not feeling comfortable in public situations, student engagement plummeted. Extracurricular activities came to a halt, and with it came the plummet of student morale. In response to the devastation students began to feel, the CCCSE initiated a student coping and stress support service. The results of the study to determine if students utilized the support service showed that 49% of students did not know about the service, 44% used the service, and 6% chose not to use it. Since 49% of the students were unaware of the support service, the effectiveness of the support system is not clear (CCCSE, 2021).

Stewart and Maisonville (2019) suggest the social aspects and diversity of the college are almost as important as academic success. The college atmosphere offers many new opportunities to students such as socialization, sports, gaming, clubs, and learning. The authors suggest the three most successful forms of involvement in college are: campus groups, participating in groups and activities, and being an efficient communicator. Campus groups are groups of people or organizations with similar interests that meet to interact on topics that they have in common. According to the authors, "organized groups and activities speed up your transition to your new life. Students can become overwhelmed by their studies … Broadening your social contacts and experiences can help a student become more involved in college and academics" (Stewart & Maisonville, 2019). Campus groups are a great way to help a student get involved in their major. Campus groups can be major-specific, which allows the student to build relationships with people in the same field, as well as build relationships with professors and other professionals in their major. The authors suggest students seek out major-related clubs and activities as well. Posters, signs, surveys, and emails are all excellent tools in the facilitation of recruitment to the activities and clubs. The more involved a student is in clubs related to their major allows students to gain knowledge in a stress-free environment. In most cases, being

involved in clubs will also help students become better time managers. Students will find ways to balance academics and pleasure, participating in clubs related to their major can mix the two. When a student is actively involved in their major, they will become more efficient communicators. According to Stewart and Maisonville (2019), stopping to listen before speaking is crucial to being an effective communicator. When a student is involved in active communication, they learn deeper communication skills such as facial expressions, tone of voice, body language, and signals that may alter a message meaning (Stewart & Maisonville, 2019). The more involved a student is in their college experience and major, the more success they will see in their short and long-term professional and personal goals.

In another study (Kim, et al., 2017) examined how college students' experiences varied based on academic and social engagement in international students. In the study, the University of California utilized the University of California Undergraduate Experience Survey (UCUES) and a sample of 35,146 junior and senior undergraduate students across 10 campuses. Through the study, researchers were able to identify a broad range of college experiences that contribute to the key outcomes for international students (Kim, et al., 2017).  The researchers found when students are more engaged in their learning, attending more classes, investing more hours in studying and participating more frequently in classroom discussions, students obtain greater gains in their cognitive outcomes … academic engagement with faculty and peers also facilitates cognitive development" (Kim, et al., 2017, p. 397). Further research suggests students' academic major tends to be associated with their levels of development in cognitive outcomes (Kim, 2017). In the study, researchers found students in social science or humanities majors were more involved and thus reported having greater gains in their cognitive outcomes compared to their peers in other majors who did not participate as frequently. Social aspects in the student's major are significant to cognitive development. According to the researchers, "sub-environments such as the student's academic majors, departments, or disciplines, have often created unique social environments for students and their various types of interactions with socializing agents have enhanced students' development in affective outcomes, including interpersonal skills, leadership skills, and college satisfaction." (Kim, et al., 2017, p. 398).  The findings support the benefits of involvement in student majors because the skills gained are beneficial skills to have in a professional field post-college. Developing leadership skills in the student's major and studies will help the student develop professionally as well as gain an appreciation for their work.

Another consideration is factors influencing student satisfaction and dissatisfaction. Milsom and Coughlin (2015) examined students experiences in their majors after enrollment and utilized a grounded theory study to investigate the experiences of 10 college students in their major and examine specific factors influencing their (dis)satisfaction. According to the researchers, the theory helps explain the developments of satisfaction with the choice of college major by following self and career awareness as well as personal reflection.  Choosing a major is most often the first step in deciding a career path. According to Milsom and Coughlin (2015), "Individuals tend to seek college majors that tap into their skills and interests, depict their self-concepts, or offer desired reinforcers." Many college students change their major at least once, having not found the right "fit" for them whether it be skill set, lack of interest, or lack of confidence in the major. In the study evidence of expected earnings, curriculum, requirements, and encouragement from family all influenced decisional factors. The researchers used purposive sampling to identify a homogeneous set of potential volunteers with experience choosing or changing their major. The researchers collected data

by holding in-person interviews to gather information for their study. The students were asked questions on the topic of overall major satisfaction, the process of choosing their major, and if they changed their major, why they did so. The model; College Major Satisfaction Model, illustrated specific opportunities lead to self-awareness … demonstrated the ways reflection about self and career results in college major satisfaction or dissatisfaction (Milson & Coughlin, 2015). It also indicated how students did not demonstrate a clear pattern when discovering points of satisfaction. The model flowed as opportunities, self-awareness/career awareness, reflection, and then to satisfaction/dissatisfaction. Completing assignments, attending classes, attending activities related to major, and engaging in internship and other work experiences also influenced results. One of the more significant factors was identifying self-interests as many students assumed certain majors were preferable due to their skillsets. One of the interviewed students noted, "I was sitting there either hating what I was reading for marketing (major) or I was loving what I was reading for psychology (elective)" (Milson & Coughlin, 2015, p. 10).

Many students suggested enrolling in general studies during the first year to give students more time to examine their interests, skills and desires when pursuing a degree. Based on research findings, researchers suggest students recognizing new interests sooner had increased retention in their higher education pursuit and active participation in their studies. Another influential factor in major success was course instructors. According to one of the students in the study, "one of my professors would complain about being in the classroom, being too concerned with their research and neglecting the education aspect" (Milson & Coughlin, 2015, p. 3). Professors also help with the short- and long-term success of the student. Another aspect of major success was identifying abilities. According to the researchers' peers helped participants gain awareness of their abilities (Milsom, 2015). One of the student participants stated, ''The people around me, you know, I can observe, you know, upperclassmen and classmates, you know, with the same difficulties but they're also, they're also managing" (Milson & Coughlin, 2015, p. 9). Students were able to observe peers' struggles and management to help them gain confidence or lack of confidence when thinking about pursuing a specific degree. Identifying values helped determine major compatibility. The researchers found participants gained awareness of their values through their class content, internship experiences, and interactions with peers and instructors. When a student examines their values, they would determine if they are pursuing a major because of future financial considerations or perhaps pursuing passions or social good. Peer influence was found to be significant, as interactions with peers made comparing skills and values to one another simpler when trying to determine commonalities among the students as well as best fit for potential majors.

The final factor contributing to a student's satisfaction was parental pressure. According to the researchers, the participants entered college with varying levels of career awareness based on different types and levels of opportunities for exposure to occupational information during high school (Milson & Coughlin, 2015). One of the students responded by stating "My dad was an engineer, and I was always pretty good at math... I didn't really have any other, like, burning desire to do anything else, so I just kind of decided I would try engineering" (Milson & Coughlin, 2015, p. 9). Students feel, that since their parents did it then they should do it as well, or they feel like they must do it because their parents pressure them for success. The results of the study indicated students' feelings of satisfaction or dissatisfaction came from their self-discovery of themselves. Students

changing their majors often occur due to neglect of them not knowing what they truly want, as well as picking a major because they are required to do so.

Stress is another primary factor that interferes with student involvement in their majors, students can easily become overwhelmed with their studies. The term stress refers to the psychological state that derives from the person's appraisal of the success with which he or she can adjust to the demands of the society environment (Finny & Prabakhar, 2022). Stress is a disabling factor to student success, which can lead to negative emotional and psychological impacts. Stress in a college setting causes low energy, headaches, stomachaches, insomnia, brain fog, chest pain, frequent illnesses, shaking and sweating, irregular eating habits, mood swings, depression, anxiety, and acne. According to researchers, the psychological effects of stress are prevalent in the college atmosphere (Maykrantz & Houghton, 2020).

Stress factors keep students from success and can be a deterrent for students to get involved in their majors. When students become too overwhelmed with their stress, they are unable to recognize that getting more involved in their major could help alleviate some of the stresses they are experiencing. For example, by getting more involved in the students' major they can gain more knowledge, build relationships with people in their major who may be able to assist them in their studies, and build their academic status by being involved.

There are other methods for students to help manage their stress, the first method being maintaining a healthy diet. Maintaining a healthy diet can help stabilize blood pressure and blood sugar levels, which are one of the causes of physical stress. The second method is regular exercise, which allows the student to release endorphins that increase overall mood. The third method is seeking help from a mental health therapist, support therapy is always a beneficial method to reduce stress. All colleges offer some form of mental health support, by utilizing the service students will be able to get their lives back on track and be more involved in their studies (Maykrantz & Houghton, 2020).

Depression is also a factor that keeps students from being more engaged in their major. Depression can cause difficulty with schoolwork, loss of interest in activities such as clubs, sports, and other social commitments, changes in eating and sleeping patterns, emotional outbursts such as tearfulness or anger, sense of being overwhelmed, panic, faulty self-assessment, lack of energy, and thoughts of suicide or self-harm (Amanvermez et al., 2020). Researchers also discussed college students have reported symptoms of depression. Students may lack interest in the major, leading a student to feel failure, worthless, or they have made a mistake. Students who struggle financially may become depressed due to the financial strain it places upon them. Students who struggle may work several jobs with long hours just to afford their schooling. Having a lack of time to do activities the student enjoys can also facilitate depression. A demanding schedule may leave students sleep-deprived due to a lack of time management skills. Education about basic independent living skills, such as doing laundry, cooking meals, being an employee, managing money, and accessing services are needed to help students transition from high school to college. Students place unrealistic expectations on themselves, which sets them up for failure and depression. Students living a significant distance from family for the first time may be more affected by homesickness and lack of familiarity. Another significant factor for students struggling with depression is reluctance to seek help. Untreated depression inhibits students from reaching their full potential; depression may lead to reduced

engagement in their major and hinder students from being successful advocates for themselves (Moeller & Seehuus, 2019).

*Financial Resources*

The last interference with students getting involved in their major is finance and resource issues. Students who do not have sufficient funds to afford higher education independently must apply for loans. A higher education finance system that requires the use of loans and paid employment disproportionately disadvantages individuals from groups that continue to be underrepresented in and underserved by higher education. While the option to take out loans may be an option, some students may not qualify and will choose degree options that they perceive to have less complicated paths to completion. Financially strained students usually work several jobs to support themselves, leaving little time to devote to a myriad of other responsibilities and perhaps even less time to become involved in their major. The US Department of Education reported nearly half of full-time undergraduate students and most part-time undergraduate students work more than twenty hours per week (Owens, et al., 2020). These students, working to pay bills, must also balance two to eight hours of homework per day, leaving less time for all other responsibilities and leisure. Simply stated, students not investing enough time and resources in their studies may not perform as well as hoped, which is likely to lead to more issues in the future.

## Recommendations

In conclusion, the existing body of literature underscores the imperative need for further research in this area, as it becomes evident that the paucity of credible sources on the topic has limited our ability to comprehensively grasp the intricate dynamics of academic and extracurricular involvement. The insufficiency in the size of research cohorts also accentuates the necessity for a more expansive research population to facilitate a deeper exploration of prevailing trends and challenges within the context of academic and extracurricular participation.

In light of the findings and grounded in the extant scholarly discourse, it is strongly advised that institutions of higher education institute proactive measures to encourage student utilization of therapeutic and support services, aimed at equipping students with the coping mechanisms necessary to navigate the multifarious stressors, depression, financial constraints, and other formidable hurdles they may encounter during their academic journey. Furthermore, it is incumbent upon these institutions to implement robust systems and programs designed to facilitate the seamless integration of incoming students, enabling them to identify and engage with a myriad of clubs, interests, and peers who share similar aspirations. Such initiatives are pivotal in fostering a sense of belonging, encouraging enhanced student engagement, and ameliorating the transition into the academic environment.

Ultimately, the cultivation of an environment where students can readily acclimate and feel at ease within their educational milieu is the foremost strategy for catalyzing heightened involvement in their chosen fields of study. This, in turn, not only fortifies the likelihood of academic success but also contributes to the fulfillment of students' educational, developmental, and personal objectives.

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**(Peer-Reviewed Article)**

## Using Social Media to Build a Relationships: Literature Based Recommendations for Rural Sport Organizations

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### Abstract

Social media is an important tool that sport organizations use to communicate with their audiences. At times rural sport organizations struggle to effectively utilize social media platforms to engage with fans, community members, and other key publics. This review of current literature is developed to aid rural sport organizations in their use of social media platforms within their communication plans. Examining the tactics and outcomes of how professional sport organizations use social media may provide insight to rural sport organizations in planning engagement strategies. Emphasis is placed on ways professional sport organizations use their social media platforms to communicate with their publics to build engagement. It is the authors' intention to provide a link between research and practical social media strategies for rural sport organizations to engage their fans.

*Key Words:* social media, communication, engagement

### Introduction

In a world where having an online presence is crucial to the success of a business, sport organizations have both a massive challenge and an opportunity to build their brand image. In the United States, 82% of people have a social networking profile as of 2021 (Dixon, 2022). Further breaking down social media use figures, Auxier and Anderson (2021) reported that YouTube and Facebooks were the most used social media platforms with 81% and 69% of American's reporting use of the apps or sites, respectively. The next three most common sites or apps were Instagram (40%), Pinterest (31%), and LinkedIn (28%) respectively. Among adults 18-29 years old, the most common apps or sites were Instagram, Snapchat, and TikTok with 71%, 65%, and 50% reporting use. While 18–29-year-olds represent the largest group of social media users with 84% reporting use in 2021, adults ages 30-49 and 50-64 also have high use rates of social media with 81% of and 73% of reporting use of social media, respectively (Fact Sheet, 2021). Social media use in rural communities has been steadily increasing over the years, driven by improved internet access and the increase in technology and use of cell phones. While there are some unique aspects to social media use in rural areas, many trends and challenges are similar to those in urban and suburban settings. It is clear having a social media account with access to 82% of the population in the U.S. gives sport entities a huge audience as they use their mission, vision, and values to build a brand image that can drive a loyal fanbase.

Public relations teams seek to communicate with key publics in a manner that builds relationships in a brand centric manner (Stoldt et al., 2021). Sport organizations implementing social media use in their communication activities may face many challenges. The lack of control in the digital world makes it increasingly more difficult for a sport organization to manage what information about the

organization or its members is distributed to the public. From the sport organization's perspective this is supported by early research in which Abeze et al. (2013) found that while sport organizations were beginning to use social media in relationship marketing, those within the organizations expressed many challenges. For instance, sport organization leaders shared that they felt a lack of control over messages posted stemming from the new multidirectional flow of information. These leaders also shared concerns over message credibility and reliability of information shared. This stemmed from concerns related to sharing information that may or may not be credible related to criticism and/or information about the organization shared on the platform. The speed with which negative content spreads on social media platforms is still a drawback to the use of social media (Ristevska-Jovanovska, 2021).

Sport organization leaders also reported challenges associated with resource allocation. Namely, they did not have the resources to allocate to the development of social media communication as part of their public relations (Abeze et al., 2013). Nariane and Parent (2017) found National Sport Organizations (NSO) were concerned about language and engagement or lack of engagement. College athletic departments leadership reported similar concerns resulting from the ever-changing nature of social media and a need to have team members to meet resulting needs (Blaszka et al., 2018).

Despite aforementioned challenges, the use of social media also provides opportunities for sports organizations to connect with their fans (Ristevska-Jovanovska, 2021). For instance, Haugh and Watkins (2016) found "a clear pattern for social-media use by sports fans emerged, culminating in the development of the Social-Media Ecosystem for sport fans" (p. 278). Motivations for fans to participate in this ecosystem ranged from information seeking and entertainment to fanship and economics. The most popular social media platforms in this ecosystem were Facebook, Snapchat, Instagram, and Twitter (Twitter changed to X in 2023). Armstrong et al. (2016) found teams may use Twitter to build relationships with fans. In one case, the LA Kings @LAKings, the team's Twitter handle, the Kings leveraged social media to help build a relationship with fans by presenting the organization as 'real' by being authentic. NSO's using social media reported the perceived value of social media occurred in their ability to promote the organization and connect with organizational stakeholders (Nariane & Parent, 2017). While content was shared predominantly using Facebook, Twitter (X), and Instagram centered on photos of athletes or positive stuff. College athletic departments were also using social media for similar reasons as Blaszka et al. (2018) found while predominantly using Facebook and Twitter (X) the college athletic department were using these platforms to promote interactivity, share information, and engage their fanbases.

Social media platforms also provide an opportunity for sport organizations to share stories with their fans (Laurell & Söderman, 2017). Laurell and Söderman suggested that while once controlled by the sport organizations the nature of social media allows for co-creation or collaboration in the storytelling process. Stareva (2014) outlined a five-step method to improve storytelling by creating breakthrough stories. First, sport organizations create a story that has a reason to be told. These stories should have a hero or what Stareva referred to as a brand shaper. Breakthrough stories also need conflict and should evoke emotion. Finally, these stories are shared virally across converged media (i.e., across the PESO media strategy). To better understand how social media platforms may help

sport organizations share stories virally the proceeding section outlines some of the functions of popular social media platforms.

While the emergence of a new social media platform is highly likely as technology advances, understanding how current social media platforms may be utilized to connect teams to fans and other stakeholders is important for sports organizations of all sizes. The authors attempt to provide ideas on how that mall rural sport organizations may use to help their teams use social media as a communication platform to connect to their fans. Examining the tactics and outcomes of different sport organizations, and their social media use, can help to build a better understanding of how to use social media in effective fan engagement. The ensuing sections examine the best uses of social media platforms followed by current cases in sport that share how different sport organizations utilize social media to strategically communicate and connect to their fans.

## General Platform Uses

Platforms such as Facebook, Twitter (X), and LinkedIn are considered social network sites. These platforms allow individuals to create a profile, share connections with selected users, and review their connections and the connections of others in the platform (Boyd & Ellison, 2007). Platforms such as YouTube and Instagram are defined as media-sharing networks. These platforms provide places where users may find and share media content online (Foreman, 2007). Incorporated into a media strategy, social media platforms represent opportunities for sport organizations to focus on the shared media (Dietrich, 2015). Shared media is an important part of Dietrich's paid, earned, shared, and owned (PESO) media strategy.

Facebook, Twitter (X), and other social media platforms provide sport organizations with built in analytics to aid evaluation of platform usage as a strategic communication tool. Sport organizations using Facebook need to remember that because of the algorithms used by Facebook, posts will not appear on a news feed in chronological order (Nicholson et al. 2015). Because of this, Facebook is not good for information that must appear in chronological order. For instance, live game updates would not work well for fans using social media to follow their team. However, Twitter (X) is a good platform for providing live game updates.

When followers of a team's social media like, comment on a post, or share content they are interacting with their sports team (Stoldt et al.,2021). Sport organizations seeking to use Facebook may create live video content, create events, share promotions, share important announcements, share pictures, or picture galleries (Stoldt et al., 2021; Nicholson et al., 2015).

Another important point to remember when using Twitter (X) is the use of hashtags.
Hashtags make content searchable. Sport organizations have leveraged this by branding events or content with suggested hashtags, for example #WKUathletics (Stoldt et al., 2021). Finally, Twitter (X) may also be used to provide behind the scenes coverage of events or seasons. While Instagram provides teams an opportunity to develop a story feature to highlight a group of photos based on an event or topic (Stoldt et al., 2021). Sport organizations use Instagram to share behind-the-scenes photos and other images (Nicholson et al., 2015).

By 2022 TikTok had 1.6 billion users (Iqal, 2021). Sports teams using TikTok may add filters, effects, and sound bites to their videos along with songs as part of editing and customization of videos to create entertaining content. TikTok may also be used to share sport organization information. Specifically, Reunanen (2022) suggested football teams should provide content that ranges from 9-15 seconds. This content could include footage of matches, videos with famous people feature, and be edited using professional software. In the end TikTok should be visually pleasing for fans.

## Planning Social Media Content

Planning allows teams to intentionally use social media as part of communication to build relationships with fans. Aiding this process, Stodlt et al. (2021) suggested the development of a social media calendar. Nicoholson et al. (2015) also proposed a similar written plan they call a social medial plan. Both documents help organizations preplan the social media platform, content, timing, objective, topic/subject, content shared, and author/ responsible organizational member. Stodlt et al (2021) also suggested communication should be shared throughout the year. While in-season may provide more opportunities to communicate, teams need to develop opportunities to engage fans throughout the year. Piché and Naraine (2022) emphasized the importance of promoting the WNBA in their investigation of the league when they found teams were more active during the season but missing engagement opportunities during off-season. For instance, during the off-season a team might use social media platforms throughout the year to share franchise successes through a Throwback Thursday that matched social media platforms with target audiences. Teams could also share information related to key off-season acquisitions or roaster changes.

To better understand how teams may use social media the ensuing section reviews a few instances in which social media is used by professional sport organizations. Though community-based sport organizations may not have a communication team with the same expertise and size of a professional organization, this information provides ideas for teams who may be struggling to fully use the social media platforms in which they engage their fans.

*Social Media Used to Build Relationships: Fan Engagement*

Teams often use social media platforms to develop their brands. Researchers have found that tweets that focus on the product-related team brand attributes engage fans along with fan shared content. For instance, Parganas et al. (2015) examined Twitter (X) usage of the Liverpool Football Club (LFC) in order to better understand the club's use of brand attributes and how it impacted follower Twitter (X) engagement. Brand attributes were divided into either product related (i.e., success, star players, coaches or things that help in the provision of the product) or non-product related (tradition, logo, stadium, or things that do not relate to the provisions of the product). While follower engagement was measured via follower response to tweets via liking (i.e., favorite, reply or retweeting). The authors found that while both product and non-product related brand attributes were shared with fans in and out of season the LFC tweets leaned more toward product related brand attributes. This meant tweets were about club star(s), head coach or match content. Club Twitter (X) followers engaged with retweets, favorite, or replies to product related tweets. The only exception to this was content produced by fans in-season. Followers also interacted with this content via comments and replies. When researchers examined product vs. non-product brand attributed content of Facebook posts the

results were similar. Fan interaction was higher when product related attributes were posted versus posts of non-product related content (Maderer et al., 2018).

Reviewing how NBA teams during the course of one season used their Twitter (X) handles to build relationships with the public, Wang and Zhou (2015) examined a framework of three relationships (publics, interactions, and professional) teams could use twitter to engage the public. As part of the investigation the term "publics" is used to cast a broad net to include fans, athletes, staff, the media, and others. Interactions were classified as professional, personal, and community relationships. When a team's tweets were classified as *professional relationships*, they shared game information, news, and links. *Personal relationship* tweets included inactions with the teams' publics. In these tweets a team might acknowledge a fan for their support. An example of a *community relationship* tweet included expressing love for the team's fans, promoting events, or providing fun or entertaining content. Tweets that were related to *personal* and *community relationships* were retweeted more thus showing true fan engagement. This led the authors to suggest when teams seek to draw attention to their twitter handle a good practice would be to focus on entertainment and fanship.

As the popularity of Twitter (X) grew Wang (2021) continued to examine how NBA teams used the social media platform. This time the research focused on Twitter tools and how NBA teams used them to build relationships. The tools examined included hyperlinks, hashtags, public messages (PM), and retweets. The researcher also sought to understand if there was a link between tool used and level of engagement of Twitter (X) users. Wang continued the use of three dimensions of relationship (professional, personal, and community) within content of a tweet by the team. In terms of the most frequently used Twitter(X) tools teams used hashtags (i.e., #specifid topic) the most. Public messages (i.e., @ username) and hyperlinks (i.e., tweets including photos, video or other cite) were the next two widely tools used by the teams. Examining the relationship among the relationship dimensions and the tool used, the researchers found that tweets containing hashtags were typically focused on building professional relationships. Public messages were used to engage and build relationships with followers or the focus of personal relationships. While community relationship tweets used more hashtags. Additionally, follower engagement via retweets was increased when teams used more public messages and retweets. Follower use of Twitter's(X) favorite tool was increased when a team used hashtags in their tweets. These findings led the researcher to conclude that Twitter's(X) tools may be used to cultivate different relationships to aid effective communication with a sport organization's publics (Wang, 2021).

Facebook has also provided a viable tool for building fan relationships when used by professional sports teams. Achen (2016) examined the relationships between NBA teams and Facebook engagement, relationship quality, and fan intention. Research results indicated that fan engagement on Facebook positively impacted fan relationships. Fans liking content was the strongest indicator of fan engagement. This led the researcher to suggest it is important for sport organizations to post content that encourages likes to build relationships with fans and encourage engagement. Research results also suggest when teams use Facebook to engage fans and build relationships, there is a positive relationship to the intention to purchase product. As a result, the author concluded Facebook could serve as a valuable marketing tool.

Achen et al. (2018) continued to examine how professional teams use Facebook to develop relationships with fans by shifting the focus to how major professional sports teams used the platform

during the off-season. Research findings indicated relationship building during the off season was more important than generating fan engagement. The researchers also determined posts that add fan value were highly valued. This was accomplished by teams shifting their focus to players and personal promotion. For community teams wanting to post similar content this would include inside looks into the sports organization via behind-the-scenes footage or human-interest stories (Achen et al. 2018).

Moving from understanding how sports teams use social media platforms like Facebook, Vale and Fernandes (2018) sought to understand why and how a teams' fans use social media. The researchers were seeking to understand if certain fan motivations (i.e., information, entertainment, personal identity, integration and social interaction, empowerment, remuneration, and brand) drove fan social media engagement. The main driver of creation was brand love. A sense of empowerment drove fan contributions. While information seeking drove fan consumption. Finally, a fan's need for integration and social interaction was an important driver for all three of the social media engagement drivers (Vale & Fernandes, 2018). The researchers suggest that in practice the findings suggest that teams should consider using Facebook tools to engage fans through the use of discussion boards and walls to help encourage interactions between the team and fans. Polls could also be used to encourage fan opinion sharing. Additional tools teams could use to encourage engagement include filters to allow fans to share their photos. Finally, teams could use messenger to push out selected content that fans enjoyed such as exclusive behind the scenes footage.

Examining content differences among teams at the major and minor league level Vooris and Achen (2019) explored how teams used Facebook. Of interest to community sport organizations is the use of multimedia. Specifically, is there a difference in the commonly used content between major and minor league teams? Between Major League Baseball (MLB) teams, AAA and AA teams there were some content differences. MLB teams were more likely to post content highlighting individuals players. While AAA teams were more likely to focus on content that was promotional and interactive (Vooris & Achen, 2019). When compared to AA teams, MBL teams posted more team, individual, and promotional content. However, AA teams were more interactive with their fans. MBL teams also posted more often. The findings promoted the researchers to point to an important difference between major and minor level teams, namely training of players and support team members. Additionally, budget size may also play a role in the use of Facebook between the major and minor leagues. Both training and budget size are important considerations for community teams seeking to utilize Facebook to promote fan engagement. Finally, the minor leagues focus on interactivity suggested teams at this level placed more emphasis on engagement than their MBL counterparts (Vooris & Achen, 2019).

Other social media platforms may also be used to build relationships. Su et al. (2020) found several advantages to athletes' use of TikTok to build their brand. These included the ability for users to exhibit playfulness and to be entertaining, the ability to be authentic through content that is fun and shows humor, and the ability to be light-hearted and more real to fans. Within these advantages you also find ideas for potential content. The researcher suggests by extending their followers' perceptions beyond the game, and game related activities, athletes have the opportunity to build relationships with their followers.

Billings et al. (2015) found sport fans believe a benefit Snapchat offered fans was the ability to socialize and Snapchat provides a good source of moments provided by the team. These moments aided fan enjoyment of the event as they provide opportunities to see content not otherwise seen. Puckette (2016) discovered the most common fan uses for Snapchat were highlights and recaps, seeing a unique perspective, behind-the-scenes content, and ease of use. Fan age played a role in the use of Snapchat as Abdourazakou et al. (2020) found younger fans were more likely to use social media platforms such as Twitter (X), Facebook, and Snapchat during a sporting event. In terms of content shared during a contest, the authors found that season ticketholders shared game updates, opinions, and information with friends. Abdourazakou and Deng (2019) also found younger fans were more likely, along with female fans, to post during a contest using Instagram and Snapchat.

## Sponsorship Promotion and Social Responsibility

When using social media platforms in their communication strategy sport organizations need to be aware of two conflicting goals involving relationships with corporate sponsors and relationships with fans. Sport entities at every level use sponsorship and partnership to create a mutually beneficial relationship with other organizations. Social media allows sport teams to integrate different logos, promotions, and any kind of sponsored content into a platform that is regularly consumed by their target population. Teams can post sponsored content in hopes of driving business to the sponsoring entity and proving as a worthwhile partner for the future. Since both strong relationships with fans and corporate sponsors provide revenue streams that sport organizations depend on, it is important to understand how the use of social media impacts engagement goals sought by both the team and corporate sponsor.

For instance, Naraine et al. (2022) set out to examine the effect of posting sponsored content on the fan engagement of sport organizations' social media posts. After examining over 13,000 Instagram a regression analysis revealed that engagement levels were lower on sponsored content than non-sponsored content (Naraine et al., 2022). This shows that sport organizations need to be aware that simply putting out sponsored content on their social media pages may not provide the results they were hoping for, or the results the sponsor is wanting. The main goal of social media for a sport organization is to get the target audience engaged and relay the brand image that your organization wants to convey to its audience. This study implies that sponsored content may work against the goal of engagement because it lacks authenticity, is commercialized, and is perceived to be forced upon the organization's social media community. Similarly, Weimer et al. (2022) noted a clear fit between sponsor related content and club image should guide sport organizations when developing sponsor social media posts. This suggestion resulted from research findings that indicated sponsor related posts lead to more negative reactions from football club Facebook users.

Highlighting a team's social responsibility activities is also tricky. Hull and Kim (2016) performed a study on Major League Baseball teams and their Instagram posts about charity work. Their research pool consisted of 50 Instagram posts from every MLB team, each analyzed for content, hashtags, and fan response (Hull & Kim, 2016). A couple of conclusions were drawn from their research. Researchers found that teams were posting little content (only 3.5%) related to their charity work in comparison to other types of posts (Hull & Kim, 2016). People would not expect a team to dedicate half of its social media posts to charity work, but because social media can be a major tool in building

a positive brand, using social media pages to promote a team's charity work seems to be an effort that would require more than 3.5% of total posts. They also found that fans were less likely to engage in posts that are related to charity work (Hull & Kim, 2016). Posts that were deemed as charity had the third lowest average in number of comments and fourth lowest average in number of likes out of all the posts that were analyzed (Hull & Kim, 2016).

From this information it can be implied that teams should reconsider displaying their charity work if the goal is to increase fan engagement on their social media pages. However, this study is limited in the fact that it does not take into consideration that these posts could still play a crucial role in building a positive brand image for the teams. As noted by Hull and Kim (2016), even if the engagement numbers are low, the audience may form a deeper connection to the team or specific players through these charitable efforts being publicized. This is an aspect of sport organization's CSR in social media that should be further examined.

## Conclusion

The inclusion of social media in a sport organization communication plan can build fan engagement when incorporated in a meaningful way. While rural sport organizations may not have similar resources of larger professional teams there are still opportunities to implement some of their social media practices into a social media plan. The ability to co-create a story with your team's fans is a benefit of the social nature of the different social media platforms (Laurell & Söderman, 2017). To aid in storytelling, developing a social media plan is an important first step (Nicholoson et al. 2015, Stoldt et al., 2021). Social media plans could include information pertaining to the platform, content, timing, objective, and organization member sharing the content. While it is often easy to engage fans during the season, it is important to develop year-round communication, so the team does not miss an opportunity to build relationships with fans (Piché & Naraine, 2022).

Each social media platform provides teams with different tools to create their stories. Facebook provides sport organizations with opportunities to create live video content, create events, share important announcements, pictures, and promotions (Stoldt et al., 2021; Nicholson et al., 2015). While fans may engage by liking, sharing, and commenting on content. Sport organizations may leverage Twitter (X) by creating searchable hashtags to brand their events and team. Twitter (X) and Instagram also provide an opportunity to share behind-the-scenes coverage of events. Similarly, YouTube allows sport organizations to share game highlights, and exclusive interviews (Nicholson et al., 2015). While Snapchat and TikTok allow teams to share their light-hearted and fun sides. Snapchat through the use of filters teams may create. TikTok through the use of effects, filters, and soundbites to customize the videos. During a contest teams should consider opportunities to engage younger fans. Research suggests these younger fans are more likely to use Twitter, Facebook, and Snapchat during sporting events. Therefore, teams need to incorporate in-game opportunities to engage this fan base (Abdourazakou et al.,2020).

Social media content should focus on product related attributes such as team success, star players, coaches, or game content as this generates the most engagement in terms of likes, retweets, and comments (Parganas et al.,2015; Maderer et al., 2018). Content that expresses emotions or acknowledges fan support also aids in the development of fan relationships (Wang & Zhou, 2015).

Achen (2016) found it is important for sport organizations to post content that encourages likes to build relationships with fans and encourage engagement on Facebook. Facebook is also an important tool to build fan relationships during the off-season (Achen et al., 2018). Teams also need to remember that while using social media to engage their public their communication should be authentic (Armstrong et al., 2016). This is especially important when incorporating sponsor content into posts to avoid over commercialization which is counter to building fan relationships (Naraine et al., 2022). What is important to remember is that social media posts containing sponsor content need to match or fit the brand the sport organization is building online. This integrity is further gained by being authentic in post content development (Naraine et al., 2022; Wemer et al., 2022). While social media use is not without management challenges, the opportunities to build and engage your team's fanbase make it a worthwhile endeavor.

As the research has noted, social media accessibility in rural communities is on the rise, offering numerous benefits such as building relationships, fan engagement, sponsorship, and social responsibility. However, challenges like limited connectivity and digital literacy may need to be addressed to ensure that all sport consumers can fully benefit from these platforms. If sport organizations are to engage in social media, there are many benefits to both the organization and its consumers. To conclude Table 1 summarizes social media benefits, recommend tools, and examples.

*Table 1. Social media benefits, recommended tools, and content example*

| Benefit | Recommended Tool | Example Content |
|---|---|---|
| Building Relationships | Facebook | Post picture of family attending game incorporating team filter |
| Fan Engagement | Twitter (X) | Poll: What's your favorite theme Night? |
| Sponsorship | Tik-Tok | Post a video of you with your sponsor's in hand. |
| Social Responsibility | Tik-Tok, Twitter (X) | Share videos of team and/or fans recycling Post photos of your group supporting different community initiatives. |

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