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The mental health and well-being of college students is a public health crisis that colleges and universities can address with a variety of approaches. The Mentorship through Exercise Program (MEP) at a large university in the Southeastern United States is one such approach. This program brings together the positive elements of physical activity and mentoring, aiming to increase students' well-being and sense of belonging on campus.

The purpose of this study was to evaluate the MEP. A convergent mixed methods approach was used. Paired *t*-tests of pre- and post-surveys showed statistically significant positive changes in both students' well-being and their sense of belonging. Four themes emerged from the open-ended survey questions and focus groups including physical activity, mentorship, benefits of the program, and program feedback/suggestions.

Findings suggest the MEP is effective in increasing students' sense of belonging and well-being. Additionally, data supports a stronger sense of belonging for students in the recreation space itself as well as increased levels of physical activity among participants.

Suggestions for improving the program from participants included increased check-in points, adding shared experiences among the mentor groups, varied communication methods with participants and embedding evaluation into the program. Findings from this study will be used to make improvements, market the program, and solicit buy-in from stakeholders to sustain program efforts. Other similar institutions may be able to adapt the program to fit their needs.

Keywords: Mentorship, mentor, physical activity, exercise, well-being, sense of belonging, college students, mixed methods.

MENTORSHIP THROUGH EXERCISE: A TIMELY INTERVENTION FOR WELL-BEING IN COLLEGE STUDENTS

by

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Approved by

Dr. Pam K. Brown Committee Chair

DEDICATION

As this work is about mentorship, it is most appropriate to dedicate to all who have mentored me and those I have had the opportunity to mentor. To the mentors in my life, through high school, undergrad and grad school, thank you. I would not be here without your support and guidance. For students that I have had the opportunity to mentor, thank you for allowing me to be a part of your journey. You continue to inspire and motivate me with all of your accomplishments.

APPROVAL PAGE

This dissertation written by Timothy M. Howley has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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TABLE OF CONTENTS

LIST OF TABLES	viii
LIST OF FIGURES	ix
CHAPTER I: PROJECT OVERVIEW	1
Background	2
Purpose Statement and Specific Aims	7
Methods	8
Mentorship through Exercise Program (MEP) Overview	9
Participants/Mentees	9
Mentors	10
Researcher Positionality	10
Trustworthiness	11
Measures	12
The Flourishing Scale (FS)	12
Sense of Belonging (SB)	12
Mentor Relationship Assessment (MRA)	13
Additional Survey Questions	13
Focus Groups	13
Data Analyses	13
Results	14
Pre- & Post-Survey Results	14
Mentor Relationship Assessment (MRA) Results	15
Additional Evaluation Questions on the Post-survey	15
Emergent Codes	15
Physical Activity	16
Physical Activities Completed	16
Increased Physical Activity	16
Mentorship	16
Benefits	17
Well-being	17

Sense of Belonging	18
Accountability/Motivation.	18
Confidence.	18
Program Feedback/Suggestions for Improvement	18
Merge Results	19
Discussion	22
Conclusion	25
CHAPTER II: DISSEMINATION	26
CHAPTER III: ACTION PLAN	28
Short Term Action Plan.	28
Campus Dissemination of Results	28
Dissemination to Program Coordinators	28
Dissemination to Campus Stakeholders	28
Use Study Findings to Market the Program	29
Implement Program Changes	29
Long-Term Action Plan	29
Long Term Strategic Plan for the MEP	29
Potential Campus Collaborations	30
University Quality Enhancement Plan	30
Campus Mentor Programs	30
Student Well-Being Campus Summit	
Research Agenda	31
Disseminate Information Regionally and Nationally	32
REFERENCES	33
APPENDIX A: GLOSSARY	43
APPENDIX B: MENTORSHIP THROUGH EXERCISE PROGRAM OVERVIEW	44
APPENDIX C: MENTOR TRAINING SLIDES	48
APPENDIX D: FLOURISHING SCALE	52
APPENDIX E: MENTORSHIP RELATIONSHIP ASSESSMENT (MRA)	53
APPENDIX F: FOCUS GROUP FACILITATION GUIDE AND QUESTIONS	54

APPENDIX G: CODEBOOK	55
APPENDIX H: EMAIL TO CAMPUS STAKEHOLDERS	69

LIST OF TABLES

Table 1. Pre-Post Comparisons	14
Table 2. MRA Factor Means	15
Table 3. Comparing Pre- and Post-Surveys with Qualitative Data	20
Table 4. Comparing MRA with Qualitative Data	21

LIST OF FIGURES

Figure 1. Convergent Mixed Methods Design Approach	9
Figure 2. Executive Summary	27

CHAPTER I: PROJECT OVERVIEW

The overall well-being and mental health of college students is a public health crisis (U.S. Department of Health and Human Services, 2021). It is well documented that the stress some college students carry with them is chronic and profound and that the mental health and well-being of college students has been troubling recently (Dunkle & Zhang, 2023; Lipson et al., 2019; Xiao et al. 2017). The COVID-19 pandemic took an already tenuous situation and made it worse (U.S. Department of Health and Human Services, 2021; Wilson et al., 2021). A multitude of factors contributed to the crisis including physical activity and sense of belonging (U.S. Department of Health and Human Services, 2021).

Even prior to the onset of the pandemic, physical activity was not a prioritized component of well-being among college students even though it has been proven to improve quality of life as well as individual well-being (ACHA, 2019; Petruzzello & Box, 2020; U.S. Department of Health and Human Services, 2018). Less than half (45.6 %) of American college students are meeting physical activity guidelines set forth by the American College of Sports Medicine and the American Heart Association (ACHA, 2019; Petruzzello & Box, 2020). Physically active college students report higher levels of well-being (Bray & Kwan, 2006; Ridner et al., 2016; Rodriguez-Romo, et al., 2023, Tyson et al., 2010). Physical activity is also related to more well-known benefits like weight management and prevention of chronic disease such as diabetes, heart disease, and hypertension that may indirectly boost one's mental health (WHO, 2018).

The well-established practice of mentoring is another factor that can support college students' well-being and mental health. Mentorships have historically been used to enhance the college experience and are supported by student development theories (Johnson 2015).

Traditional academic mentorships between faculty and students are a fundamental piece of higher education. Mentorships have shown to have numerous positive effects on academic performance, student satisfaction, retention, professional skill development and one's sense of belonging (Johnson, 2015). Sense of belonging and connection to campus culture can also influence well-being (Maslow, 1943; Strayhorn, 2018).

The Mentorship through Exercise Program (MEP) offered at a large public university in the Southeastern United States brings physical activity and mentorship together in one program to enhance the well-being and sense of belonging of college students. This program motivates students and faculty/staff to be physically active while engaging in meaningful mentorship. There are several physical activity mentorship programs in existence today that yield positive outcomes in a variety of different populations (Buman et al, 2011; Croteau et al., 2014; Kemeny & Arnhold, 2012). This, however, is a new innovative idea for college students. As such, there is a responsibility to evaluate the program thoroughly. The MEP can help to answer the call to action on the current public health crisis affecting college students today. Programs aiming to connect students and promote well-being address a critical need.

Background

To address the public health crisis of mental health and well-being with college students, the proposed project aims to evaluate the MEP. The purpose of this section is to provide a brief overview of the current state of mental health and well-being of college students, background on the relationship of physical activity and well-being, background information on mentoring in college students, and examples of existing physical activity mentorship programs.

Throughout this paper, several terms will be used: Mental health, well-being, sense of belonging, physical activity, and mentorship. Each of these terms have specific definitions for

use in this program, which are laid out in this paragraph and in the glossary (Appendix A). For the purposes of this paper, *mental health* is "a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community" (WHO, 2022). Well-being will be defined as "the presence of positive emotions and moods (e.g., contentment or happiness), the absence of negative emotions (e.g., depression or anxiety), satisfaction with life, fulfillment, and positive functioning" (CDC, 2018). Sense of belonging will be defined as "students' perceived social support on campus, a feeling or sensation of connectedness, and the experience of mattering or feeling cared about, accepted, respected, valued by, and important to the campus community or others on campus such as faculty, staff and peers" (Strayhorn, 2019, p. 5). The World Health Organization (2020), defines *physical activity* as "any bodily movement produced by skeletal muscles that requires energy expenditure" which includes activities like walking, running, playing sports or recreational activities, and lifting weights. *Mentorship* will be defined as a 'personal and reciprocal' relationship in which a more experienced mentor serves in a guiding role to a less experienced mentee. A mentor provides 'knowledge, advice, counsel, challenge and support' in the mentee's personal and professional development (Johnson, 2015).

Students who struggle with their well-being and mental health are more likely to have interruptions in their education, lower GPAs and are less likely to graduate (Arria et al., 2013; Eisenberg et al., 2009). These concerns for college students have been increasing steadily over the past several years (Dunkle & Zhang, 2023; Lipson et al., 2019; Xiao et al., 2017). Positive mental health or flourishing is on the decline among college students, while suicidal ideation is on the rise and almost 40% of students reported experiencing a significant mental health problem (American College Health Association, 2009, 2019; Eisenberg et al., 2019; Healthy Minds

Network, 2021). In 2019, university and college presidents indicated that mental health was more of a priority than it was three years prior (Chessman & Taylor, 2019). In March 2020, the COVID-19 pandemic closed campuses across the country as many transitioned to online learning. These efforts to prevent transmission of the virus also increased social isolation and loneliness and exacerbated the mental health concerns of college students. In spring 2020, the American College Health Association (ACHA) and the Healthy Minds Network collaborated to survey the impact COVID-19 was having on college students' mental health and well-being. From fall 2019 (pre-pandemic) to spring 2020 (pandemic) depression increased, a higher proportion of students reported that their mental health negatively impacted their academic performance and overall well-being decreased (Healthy Minds Network & ACHA, 2020).

Both the World Health Organization (WHO) and the Centers for Disease Control (CDC) recommend physical activity to promote positive mental health and well-being (CDC, 2021; WHO, 2020). In a review of literature, Penedo and Dahn (2005) found physical activity to decrease symptoms of anxiety and depression and improve mood and overall well-being. In 2018, the US Department of Health and Human Services updated the Physical Activity Guidelines for Americans. The current guidelines for adults (18-65-years-old) are to engage in 150-300 minutes per week of moderate intensity aerobic physical activity, or 75-150 minutes per week of vigorous-intensity aerobic physical activity. It is also recommended that adults perform muscle-strengthening activities on two or more days a week (U.S. Department of Health and Human Services, 2018). An overwhelming number of college students fall short in meeting the guidelines for physical activity (Eisenberg et al., 2019; Keating et al., 2005). College student physical activity is particularly important as this is a crucial time in which adoption of a physically active lifestyle may continue throughout an individual's life (Zhang et al., 2016).

Before moving forward with the concept of physical activity and mentorship as a combined intervention, it is important to first explore mentorship on its own. The idea of mentorship dates as far back to the days of Greek mythology and is considered to be a hallmark of college student development (Johnson, 2015; National Academies of Sciences, 2019).

Graduates who felt supported during college (reported having professors who cared and had a mentor) were nearly three times more likely to report positive well-being (Gallup & Purdue University, 2014). That same survey of over 30,000 graduates showed only 22% of graduates reported having a mentor. Cramer and Prentice-Dunn (2007) note that mentorship is a significant factor in healthy development of young adults and propose mentorship of undergraduates to take an approach of "cura personalis" or caring for the whole person" (Cramer & Dunn, 2007).

Mentorship that takes place outside of the classroom and involves physical activity can be an application of this recommendation.

There have been several different environments in which mentoring and physical activity have taken place. All of them contain specific ideas or goals for their individual programs to meet the needs of their specific community or population. Most commonly there are physical activity mentor programs designed for youth, older adults and individuals with disabilities but there is a shortage of studies evaluating these types of programs with college students.

Participants with access to peer mentors were more likely to have maintained the behavior change in the Project Active Adult Mentoring Program (Buman et al., 2011). Similarly, the participants that were paired with a mentor in the Maine in Motion Program maintained their physical activity increases (Croteau et al., 2014). GoActive and Working our Way to Health, were two physical activity mentor programs in the United Kingdom that showed varied results in regards to the mentoring piece. It was suggested additional support and training for the mentors

could improve the program outcomes (Jong et al., 2020; Robinson et al., 2010). In contrast, The I Can Do It, You Can Do It program for individuals with disabilities showed positive results for both the mentees and mentors (Kemeny & Arnhold, 2012). This program utilized a structured mentor training (Kemeny & Arnhold, 2012). Girls on the Run is an after-school program for girls in grades three through five. Coaches work with girls to build confidence and other life skills through an engaging curriculum and physical activity that prepares them for a culminating 5K (Girls on the Run, 2021). Studies have shown both short- and long-term benefits on social, psychological and physical behaviors of the participants (Debate et al., 2009; Fried et al., 2018). Another physical activity mentor program in Southern Ontario focused on school aged girls as well and also yielded positive results (Bean & Forneris, 2017). One physical activity mentor program that was geared to college students, was a peer mentorship model at Western University in Ontario Canada (Fried et al., 2018). Interestingly, this research focused on the mentors rather than the mentees.

Physical activity mentor programs are being utilized in a variety of environments with different intended outcomes and populations. Most yielded desirable outcomes and the ones that did not seem to suggest that program support and or training for the mentors would be beneficial in making the programs more effective. While many of these physical activity mentor programs exist, there does not appear to be many specifically geared towards college students like the MEP. This program is unique in targeting college students with faculty/staff members through physical activity. The creators of the program used student development theories as a foundation to create the program. One student development theory, Astin's Student Involvement Theory (1984), clearly illustrates the importance of student involvement and for students to be involved, programs, like the MEP, need to be offered as a part of the college environment. The MEP

connects a college student with a faculty/staff member with the primary goal of them exercising together at the recreation center. In doing so, this creates out-of-class and informal connections between students and faculty/staff, which is a pillar of the undergraduate experience and contributes to their connection, satisfaction and belongingness to college (Astin, 1984; Chickering & Gamson 1987; Maslow, 1943).

The state of mental health and well-being in college students, compounded by effects of the pandemic, requires colleges and universities to employ programs focused on increasing the well-being of college students and their sense of belongingness. While many physical activity mentorship programs exist, they all have different intended outcomes and populations with many showing positive results. One of the benefits of such a program is the flexibility that it can provide in meeting needs in different populations and settings. Perhaps though, the flexibility of such a program is also a drawback because there is limited literature about best practices and how to implement such a program. A physical activity mentorship program aimed at increasing the well-being and sense of belonging in college students could be incredibly transformative and a great service to students, faculty and the campus community.

Purpose Statement and Specific Aims

Support exists to show that the well-being of college students is influenced by several factors, including a sense of belonging, a connection to the campus culture, as well as the influence of physical activity. Mentoring has been shown to effectively connect students to faculty on their campus in a way that has the potential to increase the students' sense of belonging to the campus community. The MEP brings together the positive elements of mentoring and physical activity into one intervention. The purpose of this project was to evaluate the MEP.

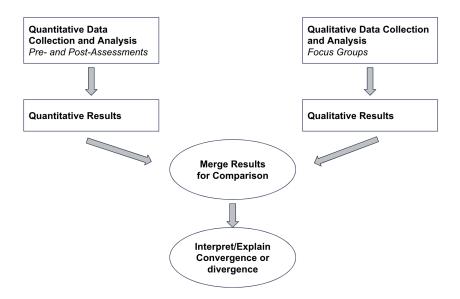
Research Aim 1: Evaluate the experiences of students engaged in the MEP

Research Aim 2: Determine the effects of the MEP on college students' sense of belonging and well-being

Methods

A convergent mixed methods approach was used to evaluate the experiences of students engaged in the MEP. Creswell (2014) defines mixed methods research as an approach to research that collects both quantitative and qualitative data, integrates the two, and then draws interpretations based on the combined strengths of both sets of data to understand research problems. Institutional Review Board (IRB) approval was received from both the University of North Carolina Greensboro, where the researcher is a doctoral student, and the researcher's home institution and where the research took place. Mentees were invited to complete pre- and postsurveys, administered online through QuestionPro. Brief demographic information was collected from the participants asking for year in school, gender, whether they are transfer students, campus involvement and whether they have participated in the MEP or a similar program before. Both the pre- and post-surveys included the Flourishing Scale (Diener et al., 2009) and a sense of belonging scale (Bollen & Hoyte, 1990). In addition to these scales, the post-survey also included The Mentor Relationship Assessment (Gullan et al., 2016) and four questions written by the researcher. In addition to these two surveys, two focus groups were facilitated towards the end of the MEP. Figure 1 displays the mixed methods process. Each survey scale is described more thoroughly below under measures.

Figure 1. Convergent Mixed Methods Design Approach



Mentorship through Exercise Program (MEP) Overview

The MEP paired students with a faculty/staff mentor. MEP coordinators made mentor matches with students' major and/or recreational interests in mind. The mentor groups met weekly at the recreation center for the semester (10 - 12 weeks). Mentors and mentees chose activities that they liked to participate in like group exercise classes, basketball, pickleball and rock climbing. Mentors and mentees received regular correspondence from program coordinators providing wellness related information, upcoming events, discussion topics and more. The researcher, a faculty member, two recreation center full time employees and a recreation center graduate assistant collaborated to coordinate the MEP. The size of the MEP was determined by the number of mentors and mentees that signed up for the program. More information on the MEP can be found in Appendix A.

Participants/Mentees

At the start of the program 37 students were paired with mentors. The students who signed up represented 23 different majors on campus. Most of them were sophomores (39%) and

juniors (33%) while 8% were freshmen and 17% were seniors. Sixty-one percent of the mentees were women, 29% were men and 10% were nonbinary. Seven of the students dropped out of the program because of time conflicts or unresponsiveness, and one student ended up withdrawing for the semester.

Nineteen students completed a pre-survey and 13 completed the post-survey. Eleven survey identifiers matched from pre- to post-survey (n = 11). Of the 11 students who completed both the pre- and post-surveys, seven were women, three were men, and one non-binary; two were freshmen, three were sophomores, three were juniors and three were seniors; three of the participants were transfer students. Four students participated in the focus groups (n = 4). All focus group participants were women, one was a freshman, one a sophomore and two were juniors, two had participated in the MEP the previous semester.

Mentors

Faculty/staff mentors were volunteers throughout the university representing 19 departments. Fifty-three percent were administrators or staff members, 27% were instructional faculty and 20% were recreation center personnel. Mentors were provided a training to help prepare them for the experience (Appendix C). Mentors in the MEP were GREAT (Genuine, Reliable, Empathetic, Approachable and Trained).

Researcher Positionality

It is important for any researcher, particularly when facilitating qualitative research methods, to consider their positionality. Understanding who one is, one's own background and biases can help show where a researcher is coming from and why they chose to research a given topic. As someone who has mentored college students for the last 16 years, I noticed a unique bond developing with students as we engaged in physical activity together. This experience led

me to partner with the MEP that was already in existence. I have worked with the recreation center colleagues to coordinate this program and I was an active mentor in the program last year. This undoubtedly gives me close and intimate knowledge of the program. Being "all-in" helped me to recruit mentors and students to participate in the program. The information gathered from this research is important to me as it will help to strengthen the program and inform my future research and practice. Because of my positive previous experiences mentoring students and involvement in the MEP specifically, I have a strong positive opinion about the MEP and I am aware of this bias.

Trustworthiness

Participation in both surveys and focus groups were voluntary for students participating in the MEP. Information shared through the surveys were de-identified. At the end of each focus group, the researcher summarized the discussion and asked the participants if it was an accurate representation of the conversation and if anything was missed. Participants confirmed the accuracy of the summary. Member checking was used again once themes were identified and interpretations of the data were made. Focus group participants were emailed a summary of their focus group session along with themes and interpretations made. The researcher asked focus group participants to acknowledge the summary and themes/interpretations made as being an accurate depiction of their conversation. Each focus group member confirmed the summary and themes and interpretations as accurate (through email response). Colleagues were consulted throughout the study for peer debriefing, which helped to challenge thoughts and biases, and consider alternate interpretations of the data. While these methods help to increase trustworthiness of the study, personal interpretations and biases cannot be eliminated.

Measures

Two scales were used (Flourishing Scale, and a sense of belonging scale) in the pre- and post-surveys. The post-survey also included the Mentor Relationship Assessment and four additional questions created by the researcher. Finally, two focus groups were facilitated. This section describes each measure in more detail.

The Flourishing Scale (FS)

The FS (Diener et al., 2009) is an eight-item instrument consisting of important aspects of human functioning such as need for competence, relatedness and self-acceptance. This scale has been used with a variety of different populations throughout the globe and is currently included on the National College Health Assessment that is administered through the American College Health Association (Diener et al., 2010; Lederer & Hoban, 2021; McDermott et al., 2019; Patterson et al., 2019; Schotanus-Kijkstra, 2014). Each item is scored on a seven-point Likert scale from strongly disagree to strongly agree. A total score is compiled with the highest possible score 56 (indicating positive well-being) and the lowest possible eight. The full scale can be found in Appendix B.

Sense of Belonging (SB)

Bollen & Hoyte (1990) developed a three-item instrument measuring sense of belonging in a university setting. This scale has been modified over time (Hurtado et al., 2007 & Lockes et al., 2008). Items include (1) I see myself as part of the university community; (2) I feel a sense of belonging to this university; and (3) I feel that I am a member of the University community.

These items are scored on a four-point Likert scale, from strongly disagree (1), to strongly agree (4) (Hurtado et al., 2007 & Locks et al., 2008) and averaged together, an average score of four indicates a strong sense of belonging to the university.

Mentor Relationship Assessment (MRA)

A quantitative measure of the mentorship experience in college students (Gullan et al., 2016) was used to assess the strengths and weaknesses of the mentorships developed through the MEP. This 24-item assessment has four components: challenge; authenticity; commitment; and community. Participants rated each item on a 7-point Likert scale from strongly disagree (1) to strongly agree (7). Items connected to each component are averaged together. All items can be viewed in Appendix C.

Additional Survey Questions

Four additional questions created by the researcher were included in the post-survey. Two closed ended questions were: (1) Would you participate in the MEP again? (2) Would you recommend the MEP to your friends? Two open-ended questions included: (1) What did you like about the MEP? (2) What suggestions do you have for improvement?

Focus Groups

In the final weeks of the MEP, the author facilitated two focus groups while a program coordinator took notes. Each focus group had two participants. A facilitation guide (Appendix D) was used to conduct the semi-structured interview that included 10 open-ended questions related to the research aims. Each focus group lasted approximately 40 minutes. The focus group was audio recorded, using OTTER AI application, a cloud-based tool accessed via the researcher's iPhone.

Data Analyses

Descriptive statistics were calculated for pre- and post-surveys of the FS, SB and MRA. The software SPSS was used to run paired *t*-tests and effect sizes for the FS and SB data. Focus group interviews were recorded and transcribed using OTTER AI. The researcher uploaded the

questions were created with the research aims in mind. It was a natural fit to start with a deductive coding process related to the research aims while analyzing the qualitative data. The researcher highlighted recurring themes from the open-ended survey questions and focus group transcripts. After one iteration of the coding process, a preliminary code book (Richards & Hemphill, 2018) was created. From that original code book themes were combined, and subthemes created. Several iterations of the codebook were made while the transcripts and audio recording continued to be revisited. Colleagues were consulted for a peer debriefing. Finally, quantitative and qualitative data was compared to provide a broader evaluation of the MEP.

Results

The results of the pre- and post-surveys for the FS and SB are presented first, followed by results of the MRA, additional post-survey questions and then the open-ended survey questions and focus groups presented under qualitative data results.

Pre- & Post-Survey Results

Paired *t*-test revealed a statistically significant increase in well-being from pre- to post-, t(10) = 2.97, p < .05, with a large effect (d = .89) (Table 2). Paired *t*-test also revealed a statistically significant increase in sense of belonging from pre- to post, t(10) = 2.60, p < .05, with a medium effect (d = .79) (Table 1).

Table 1. Pre-Post Comparisons

Measure	Pre $M \pm SD$	Post $M \pm SD$	t	df	p	d
FS	47.00 ± 6.05	53.18 ± 2.96	2.97	10	.014***	.89
SB	$3.00\pm.47$	$3.36\pm.59$	2.60	10	.026***	.79

^{***}p < .05, two-tailed

Mentor Relationship Assessment (MRA) Results

Each factor (challenge, authenticity, commitment, and community) in the MRA had a mean score over 6.00 (agree), meaning that they agreed they had mentors that challenged them, were authentic, showed commitment and instilled a sense of community. Table 5 shows the mean for each factor of the MRA.

Table 2. MRA Factor Means

Factor	M
Challenge	6.01
Authenticity	6.00
Commitment	6.09
Community	6.00
Overall	6.02

Note: 7-point Likert Scale 1 (strongly disagree) to 7 (strongly agree).

Additional Evaluation Questions on the Post-survey

According to the post-survey 90.91% of participants would recommend the MEP to a friend and 81.82% of participants would be interested in participating in the MEP again.

Emergent Codes

Through the coding process four themes emerged: Physical activity, mentorship, benefits of the program, and program feedback/suggestions. The physical activity theme had two subthemes: Physical activities completed and increased physical activity. The benefits theme had four sub-themes: Well-being, sense of belonging, accountability/motivation and confidence. The codebook with definitions of each theme and sub-theme is available in Appendix E.

Physical Activity

Two sub-themes emerged from physical activity: Physical activities completed and increased physical activities.

Physical Activities Completed. All the participants engaged in physical activity with their mentor (as intended). The type of physical activity varied based on the mentor-mentee relationship. Activities included playing basketball, running, Pilates, rock climbing, yoga, group exercise classes, swimming and pickleball. Three of the four participants reported participating in Quick Fit (a 45-minute circuit training group exercise class). Two of the participants were consistent with their physical activity choices, while the other two participants varied their physical activity choices. One participant said:

It has been nice to have like a person that I know will try something different. Like we tried Pickleball we tried Quick Fit, which like, yeah, I can try and get my friends to do that. But I know that like he's just as willing to try it as I am.

Increased Physical Activity. One survey response said: "It's a lot of fun, very interactive, gain exercise in all aspects, and gets you to the recreation center more often." All four participants acknowledged being more active because of the MEP. One focus group participant said that her asthma was under control because of her increased physical activity. Another participant said, "Because I'm working out more, I feel better."

Mentorship

The focus group participants and open-ended responses on the surveys had positive things to say about their mentors. All the focus group participants commented on the personal relationships they were able to build through the MEP. One compared it as "person to person" instead of "student to professor." Another participant referred to her mentor as a "dad figure" in

her college town. Two of the focus group participants had mentors that were faculty members in their major. Both students appreciated the career and academic advice that these mentors were able to provide. One participant said:

It is really helpful to have a mentor like in the same profession because we get to talk about that a lot. And, you know, like, how she went through her program, and like similarities and differences between hers and mine, like my road versus hers, which is really cool.

One participant appreciated the relationship and saw it outlasting the MEP. They said, "and I think it's probably like a connection that I'll have, like forever, like it's not going to just go away."

Benefits

All focus group participants reported benefits to the program. When asked to use a word to describe the MEP, three of the four focus group participants said "beneficial". These benefits were categorized into four sub-themes; well-being, sense of belonging, accountability/motivational, and confidence.

Well-being. When asked, all focus group participants were able to identify ways in which the MEP has positively impacted their well-being. Two of the participants said meeting up with their mentor helped them de-stress. One participant said she and her mentor participated in meditation and mindfulness which was beneficial to her well-being. All of the participants shared that they checked-in or talked about their mental health with their mentor. One participant said, "It's been overall just like very beneficial to like my overall well-being, my health and like my attitude in general."

Sense of Belonging. Open-ended responses from the post-survey and focus group participants identified a positive impact on their sense of belonging from involvement with the MEP. One survey response said: "The program has instilled in me a certain sense of community that has greatly improved my time here at (university name)." Two of the focus group participants' mentors worked at the recreation center. They enjoyed seeing them in the building when going on their own and they appreciated their mentors introducing them to other recreation center employees.

Accountability/Motivation. Accountability/motivation emerged as a sub-theme of the benefits of the MEP and each focus group participant talked about accountability or motivation. When students were asked to describe their experience with MEP, one participant used the word "motivating". Another focus group participant said:

"I guess I would say beneficial it's definitely been like really nice to have somebody to keep me accountable for actually showing up and like working hard like we cheer each other on while we're doing the Quick Fit classes."

Confidence. A final sub-theme that emerged from benefits was confidence. Confidence in both working out and being physically active, but also in the recreation center space. One participant said "but also my confidence for being here. And it makes me want to come back more". Another participant commented on how she was a teaching assistant for a class, and now she felt confident enough to encourage students in her class to go to the recreation center with her.

Program Feedback/Suggestions for Improvement

In both focus groups, conversations were had about communication within the program. A monthly newsletter was emailed but two students said that they were unsure if they

received or read it. One of them said "I feel like just like a monthly email, it does kind of get lost." Suggestions to use a Canvas page or GroupMe were made. In addition to increased communication, all focus group members liked the idea of having opportunities for mentor groups to meet up. One student said:

"have an opportunity for everybody to get together and either do a workout for us or just like have like dinner or something to get to know them and then that could possibly build more relationships like we could do a workout class together or something later"

There was some positive and critical feedback shared. One critical feedback response was, "My mentor never reached out to me" another said "There's a lot of reliance on the individuals to make plans, maybe have events or inform of events/classes we can take". One example of positive feedback from the survey was, "I mean, I really liked this program. I had a really great time. We were talking about it on Monday, actually, and she said that it was like the last week of the program, but we're gonna like keep meeting after."

Merge Results

The FS and SB both showed a statistically significant positive change from pre- to post-survey. Table 3 compares the FS and SB pre & post scores with examples of qualitative data.

Table 4 compares the MRA with qualitative data.

Table 3. Comparing Pre- and Post-Surveys with Qualitative Data

Measure	Scale Pr M Post M Change	Qualitative Examples
Well-being	FS 47.00 53.18 6.18	 Just like, I guess like personal benefits overall, just I'm more healthy and I feel better about myself It's been overall just like very beneficial to like my overall well-being my health and like my attitude in general
Sense of Belonging	SB 3.00 3.36 .36	 The program has instilled in me a certain sense of community that has greatly improved my time here at JMU. I feel more comfortable coming into the recreation center, and I'm definitely healthier myself. I mean, I think it's definitely how to say this. Like, helped me feel like I belong, like even more on campus

Table 4. Comparing MRA with Qualitative Data

Factor	M	Qualitative Examples
Overall of MRA		I think my mentor and I get along very well!
		He gave me an unbiased but very important set of ears to vent to and provided me
		with again, an unbiased but very important advice
		• I like being able to connect with a faculty member and getting to know them
	6.02	• And it's like we'll like talk with each other just about like she just ran. I think it
		was a half-marathon. And like I asked her how it was like she asked me about
		like, like job interviews and stuff like that.
		• And so we've been doing this for two semesters now. And it's been, like so
		beneficial and like, really great to have that person
		• And I think it's probably like a connection that I'll have, like forever, like it's not
		going to just go away.

Note: 7-point Likert Scale 1 (strongly disagree) to 7 (strongly agree).

Discussion

The MEP is offered with the purpose of increasing students' well-being and sense of belonging. The specific aims of this study were to a.) evaluate the experiences of students engaged in the MEP and b.) determine the effects of the MEP on college students' sense of belonging and well-being. Overall, the results of this study are promising.

Pre- and post-surveys showed a significant increase in students' well-being. Responses to open ended survey questions and focus group questions supported the numerical data. One student said, "Just like, I guess like personal benefits overall, just I'm more healthy and I feel better about myself." Two students acknowledged involvement in the MEP helping with stress relief and coping skills, two important skills that help foster positive well-being, one of those students said, "I feel better overall, and I know like, if I'm having like a tough week or a tough day, I can come to the recreation center and like work it out instead of just like going home."

Another student said:

And so like it's a way to just de-stress instead of going home like laying down or something like I'm moving my body. I feel good about moving my body and it's definitely helped like, with my physical like aspect and being healthier.

These results are congruent with earlier findings that showed graduates who had a mentor while in college were more likely to report positive well-being (Gallup & Purdue University, 2014) and students who are more physically active have higher well-being (Bray & Kwan, 2006; Ridner et al., 2016; Rodriguez-Romo, et al., 2023; Tyson et al., 2010). Considering the current state of college student mental health (Dunkle & Zhang, 2023; U.S. Department of Health and Human Services, 2021), this is a promising program that can be used to foster positive well-being on college campuses.

Pre- and post-surveys also showed a significant increase in students' sense of belonging. Again, responses to open ended survey questions and focus group questions supported the numerical data. One student said, "The program has instilled in me a certain sense of community that has greatly improved my time at (university name)." When looking specifically at sense of belonging, the measure utilized was focused on ones' sense of belonging to campus (Bollen & Hoyte, 1990). And while the sense of belonging increase was statistically significant, qualitative data suggests that a greater sense of belonging to the recreation center space itself was also demonstrated. One participant stated, "I feel more comfortable coming into the recreation center, and I'm definitely healthier myself." In future studies, a question could be added to inquire specifically about one's sense of belonging to the recreation center.

Results from the MRA showed that participants agreed their mentors challenged them, were authentic, were committed and built a sense of community. An open-ended response on the post-survey said: "I like being able to connect with a faculty member and getting to know them." And a focus group participant said, "And I think it's probably like a connection that I'll have, like forever, like it's not going to just go away." This data shows the MEP was effective in fostering positive mentor relationships which is an important and well used strategy in college student development (Johnson, 2015).

Qualitative data suggests that participants were more physically active as a result of being enrolled in the program. This is a particularly noteworthy finding since this is a clear need in college students. Studies show that today's college students are not meeting physical activity guidelines (ACHA, 2019; Petruzzello & Box, 2020) and that physical activity can help students with their well-being (Bray & Kwan, 2006; Ridner et al., 2016; Rodriguez-Romo, et al., 2023;

Tyson et al., 2010). Future studies can focus more on the impact the MEP may have on overall physical activity levels.

This evaluation also identified ways to strengthen the MEP. Participants in the focus groups discussed wanting to have more shared experiences with other mentor/mentee groups. Scheduling these kinds of activities is something that should be explored and implemented in future semesters. Communication throughout the entire MEP is another area with opportunity for growth. While monthly emails were sent to mentors/mentees, half of the focus group participants acknowledged not reading them. Suggestions like a Canvas page or GroupMe were talked about in the focus groups and could be explored and implemented for upcoming semesters.

One respondent who commented "my mentor never reached out to me" also chose responses on the low end of the Likert scale on the MRA. This one negative experience had an impact on the MRA scores, which were generally high but could have been even higher. Unfortunately, this information was only learned through the post-survey after the MEP concluded. While program coordinators did facilitate mid-semester check-ins with mentors, perhaps a mid-semester (or even earlier) check-in with both mentors and mentees would prevent this negative experience from occurring again. Due to the unidentified nature of the surveys, program coordinators were unable to follow-up with this student to find out more information about this specific occurrence. In the future, the post-survey can provide an opportunity for participants to leave their name and contact information if they would like to provide more information about their experience. Additionally, program coordinators can make sure to emphasize the importance of commitment to the mentors in the program during training (using this as an example of a negative experience for the student).

There are limitations to this study, the first being the small sample size. Eleven pre- and post-surveys (36.67%) were able to be matched with survey IDs, while 63.33% of students completed the pre-survey. Two of the post-surveys did not have a survey ID and were unable to be matched with a pre-survey. Four students (13.33%) participated in the focus groups. This is interesting considering incentives were awarded to those who completed pre-surveys, post-surveys and the focus groups. To overcome this, evaluations will be embedded into the program to ensure student feedback is collected. It is important to acknowledge that each mentor-mentee relationship is unique and can influence the impact of the MEP on students. To help ensure future positive results similar to this semester, efforts will be made to continue to recruit good mentors, make appropriate pairings, and train mentors. This can help the program be successful in support of these unique relationships. Ongoing evaluation of the program taking all these factors into consideration is recommended.

Conclusion

This study supports the MEP and its positive impact on student's sense of belonging and well-being. As the MEP continues, evaluation efforts should as well. This study offers ways to improve the program, through increased check-in points, added shared experiences, varied communications methods with participants, embedded evaluations, and emphasized mentor commitment. The MEP also presents opportunities to study other factors, such as frequency of physical activity and sense of belonging, specifically to the recreation center space. In light of the current state of college student mental health and well-being, and college student physical activity levels, other colleges and universities may want to consider a program like this on their campus.

CHAPTER II: DISSEMINATION

The current state of college student well-being and mental health has caused many colleges to put together committees, task forces or initiatives to work on this critical challenge. A college local to the researcher had one such committee. This college is a small, residential college in the Southeastern United States. Colleagues at the college had heard about the MEP and were interested in learning more about the program. On February 3, 2023, the researcher met with members of a wellness initiative committee, which included members from their Student Life Office (Vice President, Associate Vice President, Assistant Dean, Wellness Director, Campus Recreation Director, Counseling Director). The meeting was conversational, and the researcher shared information about the MEP, some initial findings, and followed up with questions and answers.

As a result of the meeting, the researcher concluded that an executive summary, shared below, would be a helpful way to share information, as a follow up, and for future meetings. As such, the executive summary was created to share information learned from the study in an easy and tangible way. The researcher emailed a copy of the executive summary to a member of the wellness initiative committee to share with their colleagues.

The researcher also shared this executive summary with key stakeholders at his home institution via email (Appendix H). The stakeholders included university administrators (Dean for Health and Behavioral Studies, Provost, Vice President for Student Affairs, Academic Unit Head for Health Sciences, Directors of the Recreation Center, Health Center and Counseling Center), program coordinators, the recreation center employees, and all who have served as mentors and mentees in the program. As a result of sharing the email, follow up conversations with colleagues are planned for the beginning of the fall semester.

Figure 2. Executive Summary

Mentorship through Exercise

Executive Summary 2022

Introduction. The overall well-being and mental health of college students is a public health crisis (U.S. Department of Health and Human Services, 2021). The Mentorship through Exercise Program (MEP) brings together the positive elements of mentoring and physical activity in order to help increase students' sense of belonging and well-being.

Purpose. To evaluate the MEP.



Research Aim 1: Evaluate the experiences of students engaged in the MEP.



Research Aim 2: Determine the effects of the MEP on college students' sense of belonging and well-being.

Methodology. A mixed-methods approach used pre- and post-surveys and focus groups to assess well-being, sense of belonging and evaluate the MEP.

Results. Pre- and post-surveys reveal a **statistically significant positive change in both well-being and sense of belonging. Qualitative data from open-ended questions and focus groups support the quantitative data and were categorized into four themes: Physical activity, mentorship, benefits and feedback/suggestions for improvement**

Mentee Responses

Well-being: Just like, I guess like personal benefits overall, just I'm more healthy and I feel better about myself Sense of belonging The program has instilled in me a certain sense of community that has greatly improved my time here

Connection And I think it's probably like a **connection** that I'll have, like forever, like it's not going to just go away **Physical Activity** Because **I'm working out** more I feel better.

Key Findings



Participants in the MEP showed a statistically significant increase in sense of belonging and well-being



The MEP mentors were effective in key mentoring areas (challenge, authenticity, commitment and community)



Qualitative data suggests that a greater sense of belonging to the recreation center space itself was demonstrated



Qualitative data suggests that participants were more physically active

Recommendations. The MEP is a successful program that should be continued. This study offers ways to improve the program, through increased check-in points, added shared experiences, varied communications methods with participants, embedded evaluations, and emphasized mentor commitment.

Conclusion. This study supports the MEP and its positive impact on students' sense of belonging and well-being and provided strategies to improve the program. The MEP presents opportunities to study other factors, such as frequency of physical activity and sense of belonging, specifically to the recreation center space. Considering the current state of college student mental health and well-being, and college student physical activity levels, other colleges and universities may want to consider a program like this on their campus.

CHAPTER III: ACTION PLAN

Short Term Action Plan

An important goal of the EdD program is to put research into practice. This section describes several action items that will take place in the next 6 months.

Campus Dissemination of Results

Dissemination of the results was shared with two key constituents – program coordinators and campus stakeholders.

Dissemination to Program Coordinators

In May 2023 program coordinators met and results of the study were shared. The meeting highlighted the positive takeaways from the study like the positive effect the MEP had on students' well-being and sense of belonging. The meeting also discussed key recommendations to help improve the program which were: Increased check-in points, added shared experiences, varied communications methods with participants, embedded evaluations, and emphasized mentor commitment. Follow up meetings have been scheduled through the summer for program coordinators to be able to make changes to the program for fall 2023.

Dissemination to Campus Stakeholders

This study shows that effective work is being done around student well-being and sense of belonging on campus at the recreation center. As discussed in Chapter Two, the executive summary was shared via email (Appendix H) with campus stakeholders, including the Dean for Health and Behavioral Studies, Provost, Vice President for Student Affairs, Academic Unit Head for Health Sciences, Directors of the Recreation Center, Health Center and Counseling Center. As a result of sharing the email, follow up conversations with colleagues are planned for the beginning of the fall semester.

Use Study Findings to Market the Program

Findings support the effectiveness of the MEP on student well-being and sense of belonging. Some of this data can be shared on program materials like the MEP website, the recreation center website, posters and handouts at orientation and open houses, etc. When recruiting new mentors and new mentees, data can help solicit more buy-in and should be used in recruitment messaging.

Implement Program Changes

Program coordinators are in the process of making changes to the program for fall 2023 based on the findings and recommendations. Specific changes to the program will be left to the program coordinators based on their experience, expertise and in consultation with the researcher and study findings.

Long-Term Action Plan

After short term action items are addressed, there are ways to work on the MEP in the long term, those include: Campus collaborations, a research agenda and disseminating information regionally and nationally. A long-term goal is for this program to be replicated on college campuses throughout the nation, and possibly, worldwide.

Long Term Strategic Plan for the MEP

This program is both low risk and low cost and yields positive results. While it can only serve a small group of students each semester, it can be a powerful experience for those students and should be considered as one program that is working towards the well-being of students on campus. To help sustain the program's longevity, it is recommended that a long-term strategic plan is made. When working on the strategic plan, MEP coordinators, mentors and mentees should be involved. It is recommended that a change to the program name be considered to move

away from the word "exercise" and focus more on physical activity, which is a more accurate description of the current program. The renaming of the program should be a collaborative process involving program coordinators and program participants.

Potential Campus Collaborations

In conjunction with the strategic plan, to help keep the program sustainable, it will be important to make people aware of the program. It would be a worthy endeavor to find other campus initiatives and programs that have a vested interest in student well-being and mentorship. Collaborations with two specific initiatives include the university Quality Enhancement Plan and other mentor programs. Additionally, the researcher should seek internal funding for a student well-being campus summit.

University Quality Enhancement Plan

The University Quality Enhancement Plan (QEP), a requirement of accreditation, is to implement an early alert system for student success. Two key pillars identified for student success are well-being and sense of belonging. Considering the current attention that the university has in this area, this is an ideal time to collaborate with the quality enhancement team to see if and how the MEP can work within their plan. For example, students who are identified early as "at risk" or not having a sense of belonging to the university could be referred to the MEP.

Campus Mentor Programs

On campus there are several offices that use mentoring in their practice. It is recommended that a comprehensive list of the mentor programs on campus is generated, and efforts made for mentor program coordinators meet. Specifically, findings from this study can be

shared with other programs and perhaps they will want to include a physical activity component as a part of their mentoring experience.

Student Well-Being Campus Summit

Considering the state of well-being of college students, and the university's current QEP, the researcher should plan to seek internal funding to support a campus student well-being summit. This can be an innovative way for key stakeholders from across the university to connect and discuss this complex, critical health challenge. Programs like the MEP can be shared with others who are also addressing well-being on campus. It would be helpful to create a menu of campus opportunities that are addressing student well-being. This can be shared with students, faculty, and staff to raise awareness and give greater access to students and/or lead to more collaborative efforts.

Research Agenda

There are continued opportunities for additional research on this program. Determining the impact of the MEP on physical activity frequency, sense of belonging in the recreation space, and other factors can be explored. Other work could include comparisons with other mentorship experiences on campus or at other institutions. We can partner with other programs to add a physical activity component to determine if this adds to the benefits of their programs. Our expectation is that the mentorships developed through this program will be meaningful and may last beyond a student's time in the program or even on campus. By following up with students five years from when they were enrolled in the program could lend itself to a worthy longitudinal study. Finally, we can also research the mentors' experiences with the program. There are ample opportunities for continued evaluation, assessment and research with the MEP.

Disseminate Information Regionally and Nationally

The positive results of the study and the MEP as whole along with potential for future research endeavors, lend itself to being shared with other colleges/universities. Potential journals to target for publication include *Journal American of College Health, Recreational Sports Journal, Journal of College Student Development*, and the *Journal of Student Affairs Research and Practice*. Potential conferences to present findings at could include: NIRSA: Leaders in College Recreation, American College Health Association, ACPA College Educators

International, NASPA Student Affairs Administrators in Higher Education. Sharing the information more broadly can potentially lead to some exciting collaborations and potential adoptions of similar programs at other institutions.

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APPENDIX A: GLOSSARY

Mental Health: Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community (WHO, 2022)

Mentorship: A 'personal and reciprocal' relationship in which a more experienced mentor serves in a guiding role to a less experienced mentee. A mentor provides 'knowledge, advice, counsel, challenge and support' in the mentee's personal and professional development (Johnson, 2015).

Physical activity: "Any bodily movement produced by skeletal muscles that requires energy expenditure" which includes activities like walking, running, playing sports or recreational activities, and lifting weights (WHO, 2020).

Sense of belonging: "Students' perceived social support on campus, a feeling or sensation of connectedness, and the experience of mattering or feeling cared about, accepted, respected, valued by, and important to the campus community or others on campus such as faculty, staff and peers" (Strayhorn, 2019, p. 5).

Well-being: "The presence of positive emotions and moods (e.g., contentment or happiness), the absence of negative emotions (e.g., depression or anxiety), satisfaction with life, fulfillment, and positive functioning" (CDC, 2018).

Mentorship through Exercise Program Overview.

The Mentorship through Exercise (MEP) is a program offered at a recreation center at a public comprehensive university in the Southeastern United States. The MEP pairs students with a faculty/staff mentor. The program connects students to a faculty or staff mentor, the mentor groups meet weekly at the recreation center for the semester (10 week - 12 weeks). Mentors and mentees choose activities that they like to participate in and are encouraged to take advantage of the recreation center offerings like group exercise classes, running, walking, pickleball, basketball and rock climbing. Mentors and mentees received monthly correspondence from program coordinators providing wellness related information, discussion topics and more.

Brief History of the MEP

The MEP first launched in spring 2018. In its inaugural semester, there were 23 mentor groups. In 2018-1019, the program grew to 45 groups. In 2019-2020, the program only had 13 mentor groups, and eventually was cut short due to the COVID-19 pandemic. The program was not offered again until spring 2022. Currently, program coordinators have sought feedback from participants through process evaluation methods but have not assessed quality of the mentorships formed or measured changes in students' sense of belonging and well-being.

In spring 2021, the researcher collaborated with program coordinators to bring back the MEP. This partnership added value to the program coordinators by expanding the program's reach into academic affairs. By spring 2022, the program was resurrected before the Fall 2022 semester in which the research was conducted.

Setting.

The MEP was offered to students of a large comprehensive university in the Southeastern United States. The program was available to all students. General marketing to the student population was made through social media outlets and email. Program coordinators partnered with faculty and staff to help identify students who may benefit from the program. Campus offices like; University Advising; Orientation Office; Center for Multicultural Student Services; The Sexual Orientation, Gender Identity and Expression Office; the Office of Student Life; Office of Fraternity/Sorority Life; Office of Residence Life; Off Campus Life; and other faculty members with direct student contact were used to recruit students who can benefit from the mentor program.

Mentees

At the start of the program 37 students were paired with mentors. The students who signed up represented 23 different majors on campus. Most of them were sophomores (39%) and juniors (33%) while 8% were freshmen and 17% were seniors. Sixty-one percent of the mentees were women, 29% were men and 10% were nonbinary. Seven of the students dropped out of the program because of time conflicts or unresponsiveness, and one student ended up withdrawing for the semester.

Mentors.

In order to be successful, this program needed faculty/staff who are invested in college student well-being to volunteer to serve as a mentor. Recruitment came in the form of email distribution, word of mouth, and working with the human resources wellness initiative. The ability to connect with today's students in a fun innovative way, while also having the opportunity to engage in physical activity during the workday was highlighted to attract potential

mentors. The mentors who volunteered for the program came from 19 departments across the university. Most of the mentors (53%) were administrators or staff members, 26.6% were instructional faculty and 20% were recreation center staff members.

An hour-long training was provided for the mentors before they met with their mentees. The training was facilitated by the researcher and provided information on the goals and expectations of the program, the recreation center and campus resources. The training helped to build rapport between the researcher and the mentors, and answer questions the mentors had. At the end of the training, the mentors were ready and GREAT. GREAT is an acronym used to describe successful mentors in the program: G-Genuine; R-Reliable, E-Empathic, A-Approachable; and T-Trained. Table 1 provides a definition for each characteristic.

Table B1. GREAT Mentors

Letter	Characteristic/Quality	Definition
G	Genuine	Sincere and honest (Cambridge University Press,
		2022).
R	Reliable	To be deserving of trust and/or dependable (Cambridge
		University Press, 2022).
E	Empathic	To be able to see and understand experiences from
		another's perspective without judgment (Rogers, 1975).
A	Approachable	Friendly and easy to talk to (Cambridge University
		Press, 2022).
T	Trained	Mentors will have a required training that will focus on
		how to be a GREAT mentor, discuss troubleshooting
		when things go wrong and highlighting important
		campus resources.

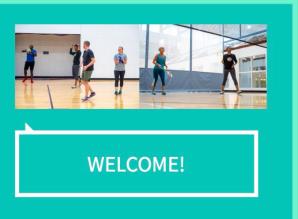
Mentor/Mentee Pairing

When signing up for the program both mentors and mentees are asked background questions like their gender, major or position on campus, and recreational interests. The form asked if they would prefer to be matched based on recreational interests, educational background or any other considerations. Once the deadline for sign ups arrived, the MEP coordinators

reviewed the list of mentors and mentees and did their best to match based on educational interests or recreational interests.

APPENDIX C: MENTOR TRAINING SLIDES





Today's Learning Outcomes

At the conclusion of this training, Mentorship Through Exercise mentors will be able to \ldots

- 1. define mentorship.
- 2. list the resources available to them as mentors.
- ${\it 3.} \quad {\it increase knowledge of UREC programs, facilities and opportunities.}$



Goals of the program

- 1. Foster meaningful connection and build community
- 2. To share experiences and grow with one another
- 3. Increase student's sense of belonging and well-being
- 4. To have fun and stay active

Assessment

We have an awesome opportunity to study some of the magic that happens within the Mentorship Through Exercise program.

- Students will be encourage to take 2 brief surveys (pre, post)
 Giveaway opportunities
- Invited to a focus group
- We may solicit your feedback as well throughout the semester (ex. Mid-semester calls)
- Our hope is to use the data over time to learn and inspire others to replicate or incorporate parts of this program

and inspire

1.

Mentorship

Why this program exists

...Because the research supports it!

Frequent student-faculty contact in and out of classes is the most important factor in student motivation and involvement.
Faculty concern helps students get through rough times and keep on working. Knowing a few faculty members well enhances students' intellectual commitment and encourages them to think about their own values and future plans.

-Arthur Chickering and Zelda Gamson

Importance of Mentorship

- Enhances confidence and offers challenges to set higher goals, take risks and achieve at higher levels.
- Individual recognition and encouragement.
- Psychosocial support.
- Advice on balancing academic and professional
- Facilitates the development of increased competencies and stronger interpersonal skills.
- Access to a support system during academic and career
 development
- Exposure to diverse perspectives and experiences.
- Direct access to resources within your major/profession.
- The foundation of a lasting professional and personal network.





COVID-19 Connection

 Building a sense of belonging and community and taking care of our health has never been more important than it is right now! As we continued to live socially distanced lives, it is programs such as Mentorship Through Exercise that seek to bridge these growing gaps.



2. Expectations

What we need from you as a mentor.

Mentor Expectations

- Commitment Length
 - About an hour a week for 10 weeks
- Professionalism
- Connection to University
- Dedication to the Mentee
- Communication
- Flexibility



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Key Elements of Good Mentorship

- Commitment. In part, commitment is demonstrated through the simple act of making time: a strong mentor is there. An equally important aspect of commitment is that both the mentor and student are open to the relationship.
- Challenge. While a mentor's recognition and appreciation of the mentee's strengths is important, the most valued mentors also challenge their mentee's thinking and encourage them to consider issues from a different perspective.
- Authenticity. Maintaining appropriate boundaries is important in relationships with a power differential. But it is also crucial to have a mentor that is approachable and who the mentee identifies with on a personal level.
- Connection. A strong mentor understands the landscape, and has the ability and willingness to connect the mentee with other people and experiences that can help them become successful members of the wider community.

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UREC Mentors ARE GREAT

Genuine **R**eliable **E**mpathic **A**pproachable **T**rained



3. **Administration**

Resources at your disposal

UREC Resources

- UREC Facilities things to doUREC Professional Staff
- Program coordinators
- UREC Register
- Monthly Emails
- Bingo Card







Campus Resources, as needed

- Counseling Center
- Dean of Students Office
- The Learning Centers
- Madison Cares
- Timely Care App
- Any resources that you all know of through your departments and networks



Troubleshooting

- Nonresponsive
- Scheduling
- Following up with program coordinators



Tips

- Schedule the first meeting quickly after the match email
- In first meeting
 - Build rapport
 - Talk about times that would work for meet up
 Schedule regular meeting times, if possible
 - Activities you might like to try
 Refer to the bingo card for ideas
 - o Remind them to take the pre-survey
 - o Discuss best communication methods (phone, email)
- Send a reminder about upcoming meeting
 - o If you need to reschedule do so quickly and try to make another meeting time.
- HAVE FUN!

Thanks!

Any questions?

Follow us on Instagram: @jmuurec Follow us on Facebook: UREC

APPENDIX D: FLOURISHING SCALE

FLOURISHING SCALE

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Below are 8 statements with which you may agree or disagree. Using the 1–7 scale below, indicate your agreement with each item by indicating that response for each statement.

- 7 Strongly agree
- 6 Agree
- 5 Slightly agree
- 4 Neither agree nor disagree
- 3 Slightly disagree
- 2 Disagree
- 1 Strongly disagree

I lead a purposeful and meaningful life
My social relationships are supportive and rewarding
I am engaged and interested in my daily activities
I actively contribute to the happiness and well-being of others
I am competent and capable in the activities that are important to me
I am a good person and live a good life
I am optimistic about my future
People respect me

Scoring:

Add the responses, varying from 1 to 7, for all eight items. The possible range of scores is from 8 (lowest possible) to 56 (highest PWB possible). A high score represents a person with many psychological resources and strengths.

APPENDIX E: MENTORSHIP RELATIONSHIP ASSESSMENT (MRA)

Using the scale 1(strongly disagree) to 7 (strongly agree), indicate your agreement with each item by indicating that response for each statement.

- 1. My mentor challenges my way of thinking.
- 2. My mentor is not afraid to disagree with my point of view.
- 3. My mentor encourages me to pursue my goals, even if they seem out of reach.
- 4. My mentor will be honest with me, even if it is something I might not want to hear.
- 5. My mentor asks me to explain my reasoning behind my choices.
- 6. My mentor challenges me to think from different perspectives.
- 7. My mentor appreciates my individual skills and contributions.
- 8. My mentor identifies my strengths.
- 9. My mentor and I share many of the same values, morals, and beliefs.
- 10. I feel personally connected with my mentor.
- 11. My mentor is someone I would be friends with.
- 12. I speak to my mentor like I would to a friend.
- 13. I do the same things with my mentor that I would do with a friend.
- 14. My relationship with my mentor is personal.
- 15. I want/wanted the help and support of my mentor.
- 16. When I first met my mentor, she/he was open to the idea of mentorship.
- 17. My mentor makes time for me.
- 18. My mentor spends as much time as I want/need with him/her.
- 19. The time spent with my mentor is put to good use.
- 20. My mentor knows about clubs, organizations and programs across campus.
- 21. My mentor understands the resources that the institution has to offer.
- 22. My mentor informs me about different events or organizations that he/she thinks would match my interests.
- 23. My mentor asks about my experiences in clubs, organizations or other activities in which I participate.
- 24. My mentor encourages me to take part in recreational activities.

APPENDIX F: FOCUS GROUP FACILITATION GUIDE AND QUESTIONS

I. Introduction

- 1. Introduce researchers present, role on campus and role with the program
- 2. Explain IRB protocols, consent and the voluntary nature of this focus group. Ask students to sign consent forms.

II. Icebreaker

1. Have students introduce themselves and their favorite physical activity.

III. Focus group questions

- 1. What made you sign up for the Mentorship through Exercise program?
- 2. What types of activities did you engage in with your mentor?
- 3. How would you describe your experience with your mentor?
- 4. How would you describe the relationship you have with your mentor?
- 5. If you could use one word to describe your experience in this program, what would it be and why?
- 6. Can you think of ways the MEP has impacted your sense of belonging?
- 7. Can you think of ways the MEP has impacted your well-being?
- 8. What did you gain from this experience?
- 9. Do you have ideas/suggestions for ways to improve the program?
- 10. What else would you like to share?

IV. Conclusion

- 1. Summary. The researcher should briefly summarize what they heard in the focus group meeting and ask participants if that was an accurate summarization.
- 2. Thank everyone for participating.

APPENDIX G: CODEBOOK

Theme Definition	Sub-Theme Definition	Example
Physical Activity "Any bodily movement produced by skeletal muscles that requires energy expenditure" which includes activities like walking, running, playing sports or recreational activities, lifting weights, etc (WHO, 2020).	Physical Activity Examples The types of physical activities that the mentor and mentee would engage in.	We usually do the Quick Fit classes once or twice a week. And that's usually how we spend time together how we participate in the program, but we're trying to branch out and possibly doing other activities like swimming here at the recreation center pool. (FG) We first started with just running and then we moved over to the adventure center for climbing. We've done a few of the quickfit courses and then we both got really into the Pilates courses (FG) And it's like, I'm not feeling like my best let's maybe just go run. Let's go climb, something a little bit lower intensity. And then like this week where as I'm like having a really good week. Let's try another QuickFit course or we can go back to Pilates. (FG) We would set up some yoga mats and then do some yoga. And then recently we'd be getting into Pilates. My mentor actually has the peloton app. And so she would like pull up exercises on her app like on her computer. And then we would just do Pilates through like a class (FG2) It has been nice to have like a person that I know will try something different. Like we tried Pickleball we tried Quick Fit, which like, yeah, I can try and get my friends to do that. But I know that like he's just as willing to try it as I am. (FG2) we play basketball for like an hour or so just like one on one or like horse or just like like that and kind of talk as we're playing and like talk about

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		like careers and graduating and stuff because I'm a senior Yeah. And then we would go get breakfast or coffee afterwards. (FG2) We usually do QuickFit that's after my lab. (FG1)
	Increased Physical Activity Comments relating to increasing physical activity.	It's a lot of fun, very interactive, gain exercise in all aspects, and gets you to the recreation center more often (S) I'm more active. (FG1) Like I'm working out once a week or even staying active once a week, especially since I'm an asthmatic. So working out more often. It's kind of like training asthma I guess. It like it definitely increases your endurance. (FG1) Because I'm working out more I feel better. (FG1) But I genuinely don't think that I would be here (the recreation center) as often as I am. So like, I've definitely started to incorporate that more with like my friend group and stuff that shoots who's like oh, we can just go play volleyball from there. We can go play basketball. (FG2)
Mentorship A 'personal and reciprocal' relationship in which a more experienced mentor serves in a guiding role to a less experienced mentee. A mentor provides 'knowledge, advice, counsel, challenge and support' in the		I think my mentor and I get along very well! I think the picking process was done well (S) To have someone interested in trying out new activities like pickleball and Quickfit.(S)

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mentee's personal and professional development (Johnson, 2015).	The connection I made with my mentor. He gave me an unbiased but very important set of ears to vent to and provided me with again, an unbiased but very important advice (S)
	I like the ability to look into my future career goals and explore possible opportunities and options. Also to have someone interested in trying out new activities like pickleball and Quickfit.(S)
	being connected with someone who has similar interests as me (S)
	Just the exposure to different faculty and learning about their lives as well, being connected to their families (S)
	I like being able to connect with a faculty member and getting to know them (S)
	And we communicate pretty often with each other about like how we're feeling that week (FG)
	If I ever felt uncomfortable here I have a situation like I know I could absolutely go see her. And like she will be there to help me. (FG)
	I would say it's very positive very like encouraging. Like we're definitely there like to be each other support when like oh, this exercise is like having not the best for me this was not the best for me or like working through solution together. (FG).
	I really like the word encouraging. That's definitely something that I feel like me and (MENTOR) are really good at. And it's like we'll like talk with each other just about like she just ran. I think it was half marathon. And like I asked her how it was like she asked me about like, like job interviews and stuff like that. (FG)

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So it's definitely nice to have, you know that you know, that relationship where we can say like, oh, let's go do this. Class. Let's go try this out. But then also, like, have just a normal, I guess, like friendly relationship as if, like, it wasn't, I guess she wasn't my mentor. I wasn't her mentee. Like we're just friends. That's been a really nice thing to have. (FG)

We talked about, like how her kids are doing because both kids are in elementary school and I'm going to be an elementary school teacher. And like, the project she's working on like she was working on building a shed. (FG)

But like, we do talk about like, we sometimes you just sit down in her office and is talking about how life in general was going and it's kind of (FG)

And I could just talk to (MENTOR) individually and be like, hey, my friend so do you have time to like run for like 15 minutes, something like that. (FG)

But like, when I'm talking to (MENTOR), it's more like it's that friendship aspect. You know, like I feel a lot more comfortable talking to her about different things and I guess I could be because of like the space that we're in like, we're just here, like doing workout classes, or like we'll go for a run or something. But yeah, it's definitely a lot more comforting, like, personal relationship. (FG)

With (MENTOR) it's more like just talking about it like person to person, instead of like student to professor it's more just person to person (FG)

And so we've been doing this for two semesters now. And it's been, like so beneficial and like, really great to have that person (FG).

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so like I'm an accounting major and I'm paired with an accounting professor. And so this past year I've been thinking about like what do I want to do with accounting? Because like, usually you become a CPA and like, go through this whole like grad school thing. And I've kind of decided I don't want to do that. And my mentor didn't do that. Like he just went straight into like a like a payroll job. So I've been like able to talk to him about like, what are my other options because the like, accounting like department tends to be like you this is your only option. And he's gonna like, well, like you don't have to do it that way. And like, here's what I've heard from other students and the people and gotten me like connections that way. (FG2)

It is really helpful to have a mentor like in the same profession because we get to talk about that a lot. And, you know, like, how she went through her program, and like similarities and differences between hers and mine, like my road versus hers, which is really cool. (FG2)

And then she's also really into mindfulness. And so we've been talking about that a lot and just talking about some tips and tricks you know, to get through your day sometimes, which is really nice. (FG2)

Think it's similar to like, a relationship I have with a friend you know, like how we talk and spend time with each other, but it's also like a mutual respect I think she's, you know, a very respected person, obviously, right. (FG2)

I think mine's more like like a dad figure kind of like it like in Harrisonburg. You're like in my field, because I always like turned to my dad for career advice, but he's not in like my career, like in my industry. It's kind of nice to have that. Like, also, he has kids that are my age, so it's kind of similar like vibes of like, he knows what's going on and like Yeah (FG2)

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Benefits

program.

Positive aspects from the

I would say some questions that I had about my major she's absolutely answered, which is super beneficial. Because I kind of got some clarity through like the exercises we've been doing just like every time we meet, you know, I feel like I get a little bit more insight on like, the field that I'm in right now. And again, mindfulness is really, really helpful. (FG2) I think similarly, like, thinking like, career advice has been really helpful. But also like, I have a reason we meet at 6am is because he's very busy and I'm very busy. So it's kind of nice to like, have a time like even if it's super early in the morning to like, just play basketball or like remember to like, just do random things like that and like kind of like, talk through any problems I have or anything but not necessarily focus on that little time. A little like, oh, yeah, like I did start my day with like, like working out. (FG2) I think it's similar, because she is in the same profession and a lot of my faculty you know, like at this point being a junior are like in the same profession. And so I think that's how it's similar and then different. We both kind of talk about our families and our lives I guess, in that aspect, which I wouldn't with other faculty member. (FG2) And I think it's probably like a connection that I'll have, like forever, like it's not going to just go away. (FG2) And like, she often like checks in with my mental health check and I check in with like her mental health and just like navigating workouts kind of around mental health. So kind of like ties in together. (FG) Just like, I guess like personal benefits overall, just I'm more healthy and I feel better about myself. (FG)

Well-being

"The presence of positive emotions and moods (e.g., contentment or happiness), the absence of negative emotions (e.g., depression or anxiety), satisfaction with life, fulfillment, and positive functioning" (CDC, 2018).

I feel more comfortable like, I guess like in my own skin.(FG1)

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Like my body my mindset. I know that I can have like healthy coping mechanisms, like by working out or even just like walking, running instead of going home and maybe doing something that's not a healthy coping mechanism and stuff like that. (FG) And so like it's a way to just de-stress instead of going home like laying down or something like I'm moving my body. I feel good about moving my body and it's definitely helped like, with my physical like aspect and being healthier. (FG) It's been overall just like very beneficial to like my overall well-being my health and like my attitude in general. (FG) I think it's eased a lot of stress for me. And like I said earlier, kind of like, reminds me like, oh, I should go do like fun things like go play basketball (FG2) It's nice to set aside that time during the day where I know that like, I can go do something fun. And enjoyable. And I don't have to be doing homework at like every second of every day I like I'm allowed to set aside that time. Do something fun like that. And also, again, like the mindfulness aspect, and like getting into meditation that's really helped me. You know, just like throughout the day, I feel like check improve my mental state, I think yeah, so (FG2) I feel better overall, and I know like, if I'm having like a tough week or a tough day, I can come to the recreation center and like work it out instead of just like going home.(FG) The program has instilled in me a certain sense of community that has greatly improved my time here at JMU. (S) And it's also nice to just have somebody here at the recreation center

"Students' perceived social support on campus, a feeling or sensation of connectedness, and the experience of mattering or feeling cared about, accepted, respected, valued by, and

Sense of belonging

And it's also nice to just have somebody here at the recreation center since my mentor works here. Just to like, like you know, somebody it's a familiar face while you're here. And that's been really comforting, I guess. (FG)

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important to the campus community or others on campus such as faculty, staff and peers" (Strayhorn, 2019, p. 5). I'm on Club Swimming and she'll see me from her office. It's really cool. (FG1)

And even when I was going to classes by myself, it would be a little bit disheartening to walk in and not know anybody. So like to have a familiar person next to you and cheering each other on just goofing around a little bit. (FG1)

And like I see (MENTOR) like I walk past her office all the time, say hi. (FG)

And she came into where I work. And that was cool. It was a familiar face. It was like Oh, Hello (FG)

And just kind of like navigating the the recreation center for me because (MENTOR) is more familiar with the recreation center. There's some things like I didn't know about like the QuickFit courses I didn't know about the Pilates courses beforehand. So there's like definitely branching out and trying. I feel more comfortable coming into the recreation center now because it was kind of like beforehand it was like I know how to use like this specific machine in this specific area because I've come here with other people. So I walk in the recreation center and I only go to those areas. So now I feel more comfortable just like walking around exploring like maybe jumping on machine I'm not familiar with. That kind of branching out.

I feel more comfortable coming into the recreation center, and I'm definitely healthier myself. (FG1)

Like I know that you touched on when you like do one of the classes or something and you're by yourself like it's kind of disheartening. I feel a lot more shy if I don't have like (MENTOR) there with me. And like whenever we're together and working out it's a lot more like, like we're

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laughing. We're talking with everybody, like with the instructor especially. And that makes me feel better when I'm working out.

Like normally walking into like the big weight room, the floor, I feel very intimidated because everyone who's there seems like they know what they're doing. They've been doing this for a long time. So I feel more hesitant walking in there but like recently, like even yesterday, I just kind of walked in, I knew what I wanted to do, and didn't really pay much mind to what everyone else was doing because everyone's doing their own thing. And then again, just overall walking around the recreation center it's not like, I used to feel like I didn't belong here because I didn't work out regularly. I would just kind of be here but now I am kind of working out more regularly. So I'm more familiar with the building and just kind of walking around feels better.

Like with the QuickFit courses, a lot of the other staff members will do them too. And like because I know (MENTOR) she'll introduce me as her mentee to like the different staff members and like seeing them around the recreation center or like even some of the other fitness instructors who like I've gotten to know it I feel just a lot more like at peace being here instead of like on edge that like everybody's looking at me. Or like, like I have no idea what I'm doing like people probably think that yeah, I don't belong here. So, like, being able to meet so many other people like through her through this program has definitely helped me feel a lot more like comfortable and that I actually belong in this space. (FG)

I mean, I think it's definitely how to say this. Like, helped me feel like I belong, like even more on campus, because like I do, like I'm involved in like a few other things, but I feel like this one has definitely helped because it's really fun, like fun to find that time during your day, like meet up with somebody on campus especially. And do an activity like that. And every time I feel like it's really beneficial, so every time I feel like I get something out of it, so yeah, (FG2)

Accountability/Motivation

When the mentor helps mentee to follow through on being physically active and encouraging them through the process. I guess I would say beneficial it's definitely been like really nice to have somebody to keep me accountable for actually showing up and like working hard like we cheer each other on while we're doing the QuickFit classes (FG)

Oh, my word would be motivating. Because so much of what you said it was like holding myself accountable to actually come to the recreation center right? Because I may just be like, oh, I have enough time to drop out of the class. I don't want to go. Now it's like someone else is waiting for me to go. (FG)

But I genuinely don't think that I would be here (the recreation center) as often as I am. Like, without, like, her keeping me accountable.

Yeah, it was really it's just motivating. (FG)

And I also just find myself like pushing harder with like, different things. Even if it's just like, I'm gonna go for a run, you know, like, I can tell (MENTOR) I went for a run. She'll be proud of me. So yeah, and she's always she's always cheering me on like when they have a hard workout in the Quick Fit. And like you can hear from across the room (FG)

I started in August, like when this semester kind of started and I thought I signed up for it because I was like, Oh, I have the motivation to go to the gym. I'm gonna do it and then like, as the semester kind of fell off, it was like, I don't want to go to the gym anymore. But having that tie, like no, we have to go do it. We said we're gonna do it, but basically the accountability to go do it was very helpful. And it was. It motivated me to keep going

and now I feel comfortable kind of like going on my own.It's been incredibly beneficial. And because there are those weeks where it's like I

	really don't think I have it in me. But once I get here, it's like yeah, you do you have the energy. You can knock it out 100% (FG). But I genuinely don't think that I would be here as often as I am. Like, without, like, her keeping me accountable. But it's also just like, there's no pressure to like, we have to do a QuickFit two days a week, you know, like, we'll talk about it like Sunday/Monday and see how we're feeling and, like if we're not if we have something else, it's like no big deal. You know, you can just do it next week or something. So that definitely, like just if there's no pressure but also like she we both want to do it, you know, like we both want each other there to keep us accountable and have that person so I would say that that's what keeps me coming back.(FG)
Confidence Feelings of self-assurance	I definitely feel more confident when working out since doing this. (FG) So, yeah, definitely feel more confident. Like in terms of working out, I guess since this program started. (FG) but also my confidence for being here. And it makes me want to come back more, (FG) I'm a TA for one of my courses and a lot of several of the students they want to come to the recreation center but they feel very hesitant about it. So now I have a little bit more inside information like oh, this would be a good course, go try this. We can do it together we can go like, again, like the confidence of being in the recreation center and doing the courses and working out. Like I can also lead others on how to do it and I feel more confident doing so and even my friends like my friends are more centered in the calming center, that sort of kind of thing. But like finding other things in direct that like this is my interest. This is your interest. Here's a compromise. Let's go play like racquetball or something (FG)

Program Feedback/Suggestions	My mentor never reached out to me (S)
	There's a lot of reliance on the individuals to make plans, maybe have events or inform of events/classes we can take (S)
	Have a list of mentors to choose from with they're specialized so you can choose which one you want and fits what you want to get out of the program the most (S)
	When pairing mentors and mentees, (I don't remember if it was like this) specifying the specific goals or areas of improvement. Like career advice, health and wellness, JMU community and activities or academics. (S)
	don't pressure too hard to do other activities that some people aren't comfortable doing (group ex, swimming, etc) while still making them aware that they exist (S)
	Say maybe one things like try to have like a goal for every week almost like a newsletter kind of make like a goal like try something new this week. Or maybe, you know, like the Aquatic Center is having an event this week. Maybe try out the aquatic center this week. Not like pushing people out that comes in like you have to try this and be like, here are some options but like in that way you can meet like other mentors and other mentees may be doing the same thing. (FG)
	like having opportunities for other like mentor/mentees to work out with

(FG)

Totally like I mentioned earlier, like feeling more confident working out.

each other. Because like, I've never met (other MENTEE) before like I don't know any of the other people in the program. So just having like, maybe like once a month or something like you'll have an opportunity for

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everybody to get together and either do a workout for us or just like have like dinner or something to get to know them and then that could possibly build more relationships like we could do a workout class together or something later.

I think I may have gotten it (monthly activity emails). I don't know if I checked it or not because JMU floods my inbox. I gotta just like I'm like, Oh, it's another JMU email, block it out.

I feel like just like a monthly email, it does kind of get lost.. So either something weekly or like a Canvas course like a GroupMe or something like that. Just to send out like, here's some courses that y'all could do, or here's some recommendations, that sort of thing. I feel like that would not I guess catch my attention more but it's like, keep it fresh in my head. (FG)

posting an announcement or something on the page. Like, I get notifications for that. And so then it's just like, Canvas catches my attention more than emails.(FG)

I think the only thing for me when maybe to be like have a space where like other Mentees and mentors can like meet together so have like, I know like the recreation center has lawn games, have like a little cookout or something. So like, we can like recognize each other a little bit more because I feel like that could be a fun like community because like, I talk about this program with like my friends stuff, but they don't actually know what it is. And then I have to like explain everything. Yeah, so it'd be nice to maybe like, I don't know talk about like other, like, meet other people's. (FG2)

I think that's a really good idea to be like kind of a community of people. I do think of one thing I think a few times it's been hard to find like a space for us and you rec to just go and like do yoga and like meditate

because meditation room sometimes full so maybe like set aside a couple rooms and you're right. (FG2)
Interaction with my teacher (S)
It got my attention through an email that came out in the beginning of semester. It was like maybe try this out and I was like, Okay, maybe like I'll just fill out the like application that I figured at the time. I was like going no, I just fell navigation. There's no commitment and then I got paired with someone I was like, Okay, this is actually getting more excited for it. But it was through like, I think it was either like an individual email or through like a JMU newsletter. (FG1)
I mean, I really liked this program. I had a really great time. We were talking about it on Monday, actually, and she said that it was like the last week of the program, but we're gonna like keep meeting after (FG2)

APPENDIX H: EMAIL TO CAMPUS STAKEHOLDERS

Tuesday, April 4, 2023 at 8:00:00 AM Eastern Daylight Time

Subject:	College Student Well-Being and the Mentorship through Exercise Program				
Date:	Tuesday, April 4, 8:00:00 AM Eastern Daylight Time				
From:	Tim Howley				
То:					
Greetings Colleagues,					
In light of the college student well-being conversation on our campus (and across the country) I felt compelled to share with you results from my dissertation work on the Mentorship through Exercise Program.					
Mentorship thr space and colla	tion, I was able to collaborate with colleagues at the Recreation Center to evaluate the ough Exercise Program. I appreciate and for welcoming me into their borating with me on this endeavor. Attached, you will find a brief executive summary y and its positive impacts on well-being and sense of belonging.				
	now if you have any questions or would like to discuss this topic further. The health and our students is a topic that I know we are all passionate about and I look forward to work together.				
Be well,					
Tim					
 Timothy M. Ho (he/him/his)	wley, M.A.T., CHES, PAPHS				