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Today's female college students face high mental health concerns and low levels of physical activity (PA). The college setting is an ideal environment for shaping positive behaviors that serve students well during and after their college years. The purpose of this study was to develop and implement a 4-week program designed to increase PA participation, motivation, and enjoyment for College students who are enrolled in the Wellness for Life course and, ultimately, enhance their wellbeing.

This study utilized a mixed methods approach. The program was developed in line with promoting self-determined motivation and positive affect and implemented as a 4-week module within a semester-long Wellness for Life course. Pre- and post-measures of PA motivation, enjoyment and behavior were completed via survey. The post-survey included an evaluation of the module, and students had an option to participate in a semi-structured interview.

Paired sample *t*-tests were used to determine differences in participants' pre- and post-four-week program overall wellbeing, PA enjoyment, motivation, and PA level as measured respectively by the World Health Organization Well-Being Index-5 (WHO-5), Physical Activity Enjoyment Scale (PACES), Intrinsic Motivation Inventory (IMI), and Godin Leisure-Time Physical Activity Questionnaire (Godin). Of the five pre-post measures, significant ($p < .05$) differences were found for motivation (IMI) and enjoyment (PACES), with higher scores for both at post.

Responses to the open-ended survey questions and interviews showed that participants enjoyed the PA sessions and perceived them as fun. They welcomed the opportunity to be social, described as "got to talk with someone," "felt more connected with others in my group," and "met

other people in ways that we wouldn't before." Participants enjoyed time to "play," "laugh and have fun," "and find a fun way to exercise."

Overall, findings from the four-week PA program were limited but show promise that a program with activities that are fun, moderate intensity and social may promote PA among college women. Female college students enjoyed the PA sessions, which were designed to be fun, moderate, and social, and perceived them as fun. When asked what would make the PA sessions better, the top reply was, "Nothing." This reply confirms that for the most part the program matched students' preferences for PA and the specific activities were enjoyed by participants.

BE WELL! A STRENGTHS-BASED APPROACH TO INCREASING PHYSICAL ACTIVITY AND ENHANCING WELLBEING

by

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_____
Committee Chair

Thank you to my amazing community for supporting me during the past 4 years and always. I'd especially like to thank my partner, Misti, and my children, for loving and supporting me, no matter what. To my friends, colleagues, and especially the Future Doctors, we made it—together! To my committee, and especially Dr. Gill, thank you for challenging me, as needed, and guiding me toward success.

APPROVAL PAGE

This dissertation, written by Susan S. Harding, 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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CHAPTER I

PROJECT OVERVIEW

High levels of stress, anxiety, and sedentary behaviors have become major public health threats among college students, putting them at risk for a host of immediate and future health problems (Nguyen-Michel et al., 2006). Eighty-one percent of female college students who participated in the 2019 American College Health Assessment-National College Health Assessment (ACHA-NCHA)-II described their health as good, very good or excellent. However, they rated their overall stress as average (32.4%), more than average (48.2%), and tremendous (14.5%) (ACHA, 2019) and 56% did not meet recommended guidelines for physical activity.

In the fall of 2019, there were approximately 11.3 million female students attending college (National Center for Education Statistics, n.d.). For most students, attending college is a major life transition (Joseph et al., 2014). Such a time of change can be a major stressful experience and impact students' wellbeing (Sanagavarapu et al., 2018). Colleges and universities have the opportunity and responsibility to positively shape physical activity behaviors in their students, which will in turn enhance their quality of life (QoL) (Leslie et al., 2001).

Positive health behaviors, such as physical activity, can improve psychological wellbeing and physical health (Fredrickson, 2003). Physically active students enjoy better health and wellbeing than their inactive peers (Murphy et al., 2018). But – people, especially college women, don't engage in sufficient physical activity to gain benefits. Targeted efforts are needed to increase PA and thus well-being in college women. Research and theories suggest that effective programs are those that foster intrinsic/self-determined motivation and positive

affect/enjoyment of PA. This project is designed to enhance motivation and enjoyment of physical activity among college women, and thus promote continuing PA and wellbeing.

Background

This section reviews research and reports on physical activity and its relationship to health and wellbeing. The section then covers major theories that provide a framework for the program and related research on promoting motivation and enjoyment of PA. According to the U.S. Department of Health and Human Services (HHS), adults need at least 150 to 300 minutes of moderate-intensity aerobic activity each week to attain the most health benefits from physical activity. Adults also need muscle-strengthening activity at least 2 days each week (HHS, 2019). Physical inactivity, defined as the failure to achieve the minimum recommended amount of PA, is one of the most common contributors to poor health in the world (de Souto, 2015). The ACHA reports increasing proportions of college age students who are classified as insufficiently active, including 55% of female students who completed the ACHA-NCHA II in Spring 2018.

Physical Activity Benefits

Physical activity (PA) is defined as any bodily movement produced by skeletal muscles that requires energy expenditure (Caspersen, Powell & Christenson, 1985). Physical activity benefits include increased functional health, improved cognitive function, reduced risk of coronary heart disease, type 2 diabetes, and depression (Lee et al., 2012). Physical activity is also beneficial to one's mental health. A recent study conducted with adults (n=183,341) found a positive relationship between physical activity participation and mental health (Sciamanna et al., 2016). These findings are significant as an estimated 19% of American adults between the ages of 18 and 25 have mental health concerns (Center for Behavioral Health Statistics and Quality, 2018).

Secondary data from the 2002 and 2003 NCHA was used to examine the relationship between mental health and strength training (ST) exercises and moderate/vigorous PA (MVPA) in a national sample of college women (Adams et al., 2007). Dependent variables included perceived health, depression, anxiety, and suicidal ideation. Independent variables were MVPA or weekly ST during the past seven days. The findings suggest that PA and mental health are associated. The WHO recognizes depressive disorders as the leading cause of disability and PA is being prescribed as an evidence-based treatment (Ekkekakis, 2015). Findings from a large cross-sectional study (n=1.2 million) of U.S. adults demonstrated individuals who exercise had more than 40% fewer days of poor mental health in the past month than non-exercisers (Chekroud et al., 2018). Additionally, a systematic review of the effects of walking as a treatment for depression showed that outdoor, indoor, and group walking had a significantly positive effect on symptoms of depression. Outdoor walking, in particular, offers a restorative effect and decreases levels of stress which could impact levels of depression (Robertson et al., 2012).

Physical activity has benefits for overall wellbeing or quality of life (QoL). Gill et al. (2011) described QoL as a subjective, multidimensional construct; dimensions include one's physical, emotional, social, spiritual, and mental health and wellbeing. Physical activity enhances QoL, and QoL impacts PA participation (Gill et al., 2013). With a large sample of participants, including university students and community members, Gill et al. (2011) found that participants reported social and emotional as well as physical benefits of PA and nearly all participants indicated PA contributes to positive health and QoL.

Physical Activity Promotion and Self-Determination Theory

Physical activity promotion is more effective with a positive approach emphasizing intrinsic motivation and positive affect/enjoyment (Lloyd & Little, 2010). Self Determination Theory (SDT), developed by Deci and Ryan in 1985, proposes a continuum for motivation, from

intrinsic, which refers to doing something because it is inherently enjoyable, to extrinsic motivation, which refers to doing something because it leads to a reward (Ryan & Deci, 2000). SDT asserts that all people have three basic psychological needs, including autonomy, competence, and relatedness. Satisfaction of basic needs promotes intrinsic motivation and supports wellbeing (Ryan & Deci, 2000). Autonomy refers to choice and is reflected by the ability to make choices about PA participation. Competence refers to capability of achieving desired outcomes and is reflected in trying new activities and experiencing success. Relatedness is reflected by genuine connection and experiences with other participants (Deci, 1975).

Generally, PA interventions that utilize the SDT framework aim to enhance participants' progress on the continuum toward autonomy (Fortier et al., 2012). This continuum ranges from the most controlled form of motivation, which is regulated by satisfying external demands, to the most autonomous and self-determined form of motivation. Individuals who are autonomously motivated generally sustain behaviors longer than those individuals who are externally motivated (Friederichs et al., 2015). In a 2019 study of Chinese college students (n=220), Tao utilized self-reported measures of QoL, perceived competence, self-determined motivation, and accelerometer testing for PA, and reported that students who feel competent of their PA abilities function better physically, which in turn enhances their QoL (Tao et al., 2019).

A connection between the SDT framework, physical activity, and women's wellbeing can be found in Lloyd and Little's (2010) work. They conducted semi-structured interviews with women (n=20) about their perceptions and experiences of leisure time physical activity (LTPA) in a women's recreational festival. The environment was described as "fun," "safe," and "supportive." The findings represented the key elements of SDT. Competence was reflected by women trying new activities, feeling confident and successful, and leading them to consider future participation. Autonomy was reflected in the ability to choose activities in which to

participate. Connectedness was reflected by interactions with other women. The study also demonstrated that targeted, short term LTPA opportunities can enhance women's wellbeing and impact future PA participation (Lloyd & Little, 2010).

Of interest, the most widely used motivation theories, including SDT, are cognitive theories that do not include affect. The growing research of Ekkekakis (2013) and colleagues indicates the importance of considering affect as well as cognitive motivation in planning PA.

Physical Activity and Affect

An expanding body of research indicates that PA behavior is influenced by affective experiences of PA, or participants' feelings, moods, and emotional states (Ekkekakis et al., 2011). Affective experiences lie on a continuum from positive to negative (Lox et al., 2000). Evidence shows that anticipated affect and enjoyment are associated with PA intentions and behavior (Zenko et al., 2016). Positive affect is linked with future PA participation (Kendzierski & DeCarlo, 1991; Rhodes & Kates, 2015). Hence, practitioners should consider positive affect when designing and implementing PA programs (Ladwig et al., 2017).

Much attention has been given to exercise intensity and affect. Allowing participants to self-select their preferred exercise intensity may support interest and adherence. A 2009 systematic review of the literature on self-selected exercise intensity demonstrated that PA participation was highest when self-selected, having choice enhanced PA enjoyment, and enjoyment enhanced intrinsic motivation (Ekkekakis, 2009). The American College of Sports Medicine declared in its exercise prescription guidelines that professionals must consider individual preferences for exercise to improve adherence. Evidence linking affect to adherence supports a tripartite model through the addition of enjoyment to the exercise prescription guidelines including health benefits and risk (Ekkekakis et al., 2011). In a joint statement from the ACSM, the American Diabetes Association (ADA), the National Institute of Health (NIH),

and physical educators, there is agreement that feeling good is critical for PA participation (Ekkekakis et al., 2013).

Ultimately, more enjoyment during exercise should lead to higher levels of future PA participation (Rhodes & Kates, 2015; Zenko et al., 2016). PA programs that consider affect/enjoyment and intrinsic/self-determined motivation are more effective than those that do not utilize such frameworks.

Integrated Conceptual Framework

Recently, an integrated framework related to physical inactivity and physical activity (PA) promotion, the dual process model, has surfaced. In this model, the human mind incorporates two functionally distinct systems that jointly determine behavioral choices (Ekkekakis, 2017). One system is deliberative and reflective; decisions are based on the cost/benefit of choices and predictions of outcomes. The second system is effortless and reflects automatic pairings formed over time. Of importance, the two systems can have conflicting tendencies (Bluemke et al., 2010). For example, one might consider going for a run. The deliberative system messages, "I should run today. It's good for my health." The associative, or impulsive, system messages, "Remember your last run? It was awful. You hate running."

The dual process is related to Ekkekakis's work, adding more support for considering affect/emotion in PA promotion. Recent studies demonstrate the need to address both systems to make PA more enjoyable across the lifespan (Ekkekakis, 2017). For example, Zenko et al. (2016) showed that motivational variables, such as perceived desirability of PA, affective attitude, intention, and PA choices can be manipulated. This study also demonstrates rational and impulsive decisions. A second study (Bluemke et al., 2010) with university students showed that exercisers, in contrast to non-exercisers, hold positive associations toward exercise on an

automatic level. Designing PA programs that support positive associations and overcome negative associations (Bluemke et al., 2010) will likely increase future PA participation.

PA promotion programs should foster self-determined/intrinsic motivation and positive affect/enjoyment. Vazou et al. (2019) compared the effects of traditional and novel physical education lessons with 4-6th grade students (n=148) on positive affect/enjoyment and satisfaction of needs for autonomy, competence, and relatedness. Findings showed that program modifications can improve student experiences by enhancing how they feel toward PA, thus increasing future PA participation. Lloyd and Little (2010) found that even small amounts of PA can enhance women's wellbeing and increase future PA participation if conditions are supportive of self-determined/intrinsic motivation and enjoyment.

Ekkekakis and colleagues acknowledge the importance of the SDT framework for PA promotion, but add that researchers must focus on making the experience of exercise and physical activity more pleasant for individuals across all stages of life, thus supporting the dual process model. When planning LTPA, consideration should be given to both affect and cognitive motivation (Bluemke et al., 2010; Ekkekakis, 2017; Ekkekakis & Zenko, 2016; Zenko et al., 2016).

Considerations for the Women's College Community

Both community and individual factors influence physical activity (PA) behavior. The social ecological framework provides an understanding of factors that determine behaviors, including individual, interpersonal, organizational, community, and policy (Stapleton et al., 2017). Using such a framework supports practitioners' efforts to plan, develop, implement, and evaluate PA programs from a strengths-based approach (King & Gonzalez, 2018). At the individual level, age, income, and disabilities, must be considered. On an interpersonal level, social support systems need to be considered. The organizational level includes policies that

support PA and wellbeing, such as access to fitness facilities and incentives for PA participation. Finally, at the community and policy level, practitioners can connect through service and advocate for positive change, such as access, educational programs, and policies (King & Gonzalez, 2018).

This study is designed to promote PA opportunities for female students by including factors within the social ecological model that support PA participation, with an emphasis on social support, enjoyment, and overall wellbeing. Women are more intrinsically motivated when PA is not associated with exercise and there is choice. Non-competitive activities and enjoyment are major factors of PA participation (Gill et al., 2011; Lloyd & Little, 2010; McArthur & Raedeke, 2009). The study mainly intervenes at the individual and interpersonal levels within the organizational and community context. For each level, a successful strategy includes identifying individual and institutional strengths and building partnerships to leverage resources within the community (Kretzmann & McKnight, 1996).

From a strengths-based perspective, the minimal financial and human resources have led to an increased collaborative effort for this study. For example, the researcher has partnered with instructors from the College, a yoga teacher from the greater community, and professionals at other colleges for equipment needs, facilities usage, and program development. A strengths-based approach that utilizes the research about enjoyment/affect, self-determined/intrinsic motivation, and PA participation should yield greater participation and enhanced student wellbeing.

Purpose and Aims

The purpose of this research was to develop and implement a four-week initiative designed to increase physical activity (PA) participation, motivation, and enjoyment for College students who are enrolled in the Wellness for Life course and, ultimately, enhance their wellbeing. The 4-week program provides activities based on student interests.

Aim #1: *Design and implement evidence-based activities for a four-week physical activity initiative for students enrolled in the Wellness for Life course at the College.*

Aim #2: *Evaluate the influence of the four-week physical activity initiative on students' PA motivation and enjoyment, PA behavior, intention to continue PA, and their well-being.*

Aim #3: *Evaluate the four-week physical activity initiative to students enrolled in the Wellness for Life course at the College based on students' perceptions and suggestions.*

Methods

The initiative was developed in line with promoting self-determined motivation and positive affect and implemented as a 4-week module within a semester-long Wellness for Life course. Pre- and post-measures of PA motivation, enjoyment and behavior were completed via survey. The post-survey included an evaluation of the module, and students had an option to participate in a semi-structured interview.

Participants

Students enrolled in the Wellness for Life course at a private, liberal arts women's college in the Southeastern United States were recruited to participate in the study. The College has the most racially and ethnically diverse student body (*n*=439) of any local institution: 44% of traditional students are students of color. Wellness for Life is an experiential, required general education course, designed to offer time and space to explore one's health and well-being and apply that which is learned. The College's eight dimensions of wellness, including emotional, physical, community, environmental, spiritual, occupational, financial, and intellectual dimensions, are discussed and integrated throughout the course. Utilizing all four sections of the course, this convenience sample represented a diverse academic class of first-year students (*n*=42), sophomores (*n*=13), juniors (*n*=10), and seniors (*n*=7). Of the 72 enrolled students, 68 students completed the pre-survey, and 54 of 68 students consented. Not all students completed

all measures. For example, 52 students completed the pre-survey but only 44 of those students also completed the post-survey, and the PAAS completion ranged from 30 to 51.

Measures

Before and after the 4-week physical activity module, participants completed an online survey that assessed their PA motivation, enjoyment, participation, and well-being. The survey also included demographics (age, academic class standing, gender, race/ethnicity, and residential or off-campus). Within the 4-week PA program, immediately after each physical activity session, affective response, enjoyment, and suggestions for improving the activity were measured. Upon completion of the 4-week PA program, a post-program evaluation with ratings and open-ended questions was included. Three semi-structured interview sessions with one to two participants per session met to discuss the PA program and future programming on campus.

Pre-Post Survey Measures

The pre-post survey included demographic information, as well as established measures of intrinsic motivation, QoL, PA enjoyment, and PA behavior.

Intrinsic Motivation. Motivation was measured by the modified 7-item interest/enjoyment subscale of the Intrinsic Motivation Inventory (IMI; Ryan & Deci, 2000) (Appendix A). Using a 7-point Likert scale from not at all true (1) to very true (7), the measure assessed participants' interest/enjoyment, which is the primary measure of intrinsic motivation. IMI items were adapted to fit specific activities; in this case "physical activity" was the target. For example, "I enjoy physical activity very much." A higher score indicates greater intrinsic motivation. Validity and reliability of the IMI is well-established and exceeds recommendations for research contexts (McAuley et al., 1989).

Quality of Life/Well-being. Well-being was measured by the 5-item World Health Organization Well-Being Index (WHO-5) (Topp et al., 2015). The WHO-5 (Appendix B) asks

participants to answer five questions about how they felt the past two weeks. Choices on a 6-point scale range from at no time (0) to all of the time (5). The total score is calculated by summing the five responses, and range from zero to 25, with zero representing worst possible and 25 representing best possible quality of life. The WHO-5 has been validated in a number of studies with regard to both clinical and psychometric validity (Mental Health Services, n.d.).

Enjoyment. Enjoyment was measured by the 18-item Physical Activity Enjoyment Scale (PACES) (Kendzierski & DeCarlo, 1991). Respondents were asked to rate "how you feel at the moment about physical activity" using a 7-point bipolar rating scale. Higher PACES scores reflect greater levels of enjoyment. The PACES has high internal consistency and has been shown to be a reliable and valid measure of the extent to which someone enjoys PA (Kendzierski & DeCarlo, 1991).

Physical Activity. Self-reported physical activity levels were measured by the Godin-Shephard Leisure-Time Physical Activity Questionnaire (Appendix D). The three-question survey is reliable, valid and easy to use (Godin, 2011). Participants were asked to consider the type and frequency of physical activity during a 7-day period. The leisure-time physical activity score was calculated in two steps. First, weekly frequencies of strenuous, moderate, and mild activities were multiplied by nine, five, and three, respectively. The values relate to Metabolic Equivalent of Task (MET) values of the activities. Second, the total MET score was calculated by summing the three sections. According to Godin (2011), 24 units or more is classified as active (substantial benefits); 14 to 23 units is classified as moderately active (some benefits); and less than 14 units is classified as insufficiently active (less substantial or low benefits).

Post-Activity Session Measures

Affect was immediately measured post-activity session by the Physical Activity Affect Scale (PAAS) (Appendix E). Also, one open-ended question asked: "What would make the activity better? (Appendix F). These measures were completed on paper.

Physical Activity Affect Scale (PAAS). The Physical Activity Affect Scale (PAAS) is a multidimensional measure of exercise-induced affect (Lox et al., 2000). It includes 12 items representing four subscales, including positive affect (enthusiastic, energetic, and upbeat), negative affect (miserable, discouraged, and crummy), physical exhaustion (fatigued, tired, and worn-out), and tranquility (calm, relaxed, and peaceful). Participants rated each item on a 5-point Likert scale from 0 (do not feel) to 4 (feel very strongly) (Carpenter et al., 2010). This measure shows adequate internal consistency and discriminant validity among the factors, has predictive validity for future exercise behavior and exercise motivation, and has shown measurement invariance between more and less active participants (Magnan et al., 2013).

Post-Program Evaluation Survey and Interviews

The evaluation survey (Appendix G) was administered through Qualtrics™. Each of the seven physical activity sessions was listed and students were asked to rate each of the activities based on enjoyment, activity level, and future PA participation using a 1-5 scale. The researcher also conducted semi-structured interviews after program completion to ask participants about participation, enjoyment, and future program development (Appendix H).

Procedures

Upon IRB approval, students enrolled in the Wellness for Life course were recruited to participate in the study. A colleague in the Student Affairs Department introduced the study and obtained consent from the students. Each participant was assigned a unique, depersonalized identifier. Participant names and IDs were kept confidential. The participants provided this

identifier each time they completed pre- and post-program measurements. Participants completed the pre-program survey electronically through Qualtrics™ prior to beginning the 4-week PA program.

PA Program Initiative. Seven 30-minute physical activity sessions (Appendix I) were designed by the researcher based on student input from a preliminary survey and review of the literature on affect, motivation, and PA promotion. From the preliminary survey (n=33), students' most enjoyable activities were walking, yoga, and dancing. Physical activity sessions for the study took place on campus at either the gymnasium or outside. The activities included two buddy walks with one incorporating a scavenger hunt, two sessions of backyard games, folk dance, yoga, two by two activities, and noodle games (Appendix I).

Students participated in 30-minute biweekly physical activity sessions during their Wellness for Life course. The program was implemented over four weeks with classes meeting twice per week. Activities, except for yoga and noodle games, were led by the researcher. The yoga session was led by a community member; noodle games were led by a colleague. Upon completion of each PA session, participants completed the post-activity session survey.

Program Evaluation. The post program survey and the program evaluation survey were distributed electronically through Qualtrics™ after completion of the 4-week PA program. Students who volunteered to participate in interviews were grouped based on availability. One or two students met face to face outside of the regular scheduled class time for a 30-45-minute session. Times were arranged through email. Sessions took place in the Wellness for Life classroom or virtually through WebEx. For consistency, the researcher asked pre-determined, open-ended questions from a scripted guide (Appendix H). Interviews were audio-recorded for the purpose of transcription with the permission of the participants. All participants were advised that pseudonyms would be used to protect their anonymity.

Data Analysis

Survey data were downloaded from Qualtrics into SPSS for analyses. Descriptive statistics were calculated for demographics and pre- and post-measures. For the IMI, WHO-5, PACES and Godin, paired *t*-tests were calculated to compare the pre- and post-measures.

For the post-program evaluation survey, the ratings for enjoyment, activity level, and future participation were analyzed descriptively. Interviews and open-ended survey questions were coded by an inductive analysis into major themes of enjoyment, program design, and PA and wellbeing. Peer debriefing was utilized to support trustworthiness of the analysis (Guba, 1981). A colleague reviewed replies to open-ended survey questions, then compared her notes to the researcher's notes and found very similar results. All data were stored in Box through The University of North Carolina at Greensboro.

Results

Pre-post survey results are presented first followed by PA session ratings, post-program ratings, and an analysis of the qualitative data including open-ended responses from the post-survey and interview data. Results of the paired sample *t*-tests used to determine differences in participants' pre- and post-program overall wellbeing, PA enjoyment, motivation, and PA level as measured respectively by the WHO-5, PACES, IMI, and Godin Leisure-Time Physical Activity Questionnaire are in Table 1. The Godin *t*-tests included two analyses, the sum of all three categories of strenuous, moderate, and mild exercise, and the MVPA which includes only strenuous and moderate exercise. Significant differences were found with the IMI and PACES. Both intrinsic motivation (IMI) and enjoyment (PACES) increased from pre to post. The WHO-5 increased (although not significantly) but PA, both total and MVPA, decreased at post.

Table 1. Pre-post Results for the IMI, WHO-5, PACES, Godin Sum, and MVPA

	Pre		Post				
Measure	M	SD	M	SD	t	df	p
IMI	33.7	10.49	35.4	10.44	-2.298	42	.027*
WHO-5	11.5	6.18	12.3	6.11	-.870	43	.389
PACES	85.9	26.52	93.4	24.35	-2.936	40	.005*
Godin	45.3	30.46	39.7	25.77	1.271	37	.212
Godin MVPA	33.8	27.03	30.9	22.70	.877	37	.386

Note. n=38-43; *p<.05, two-tailed

PA session ratings (Table 2) range from 0-4 and demonstrate that the Backyard Games, Virginia Reel, and Noodle Games had the highest levels of positive affect (score of 3 or higher) or were the most enjoyable activities. Backyard Games and VA Reel also showed the lowest levels of negative affect. Noodle Games showed the highest level of fatigue, and Yoga showed the highest level of tranquility.

Table 2. PAAS Descriptives

Activity	PosAff	NegAff	Fatigue	Tranquility
Buddy Walk	2.37	.40	1.16	2.49
VA Reel	3.04	.24	1.10	2.15
Backyard Games	3.21	.25	.96	2.32
Scavenger Hunt	1.93	.49	.97	2.05
Yoga	1.83	.49	1.03	2.99
Noodle Games	2.96	.31	1.40	1.47
2 x 2	2.63	.26	.93	2.29

Note. Possible range of scores: 0-4.

Post-program ratings (Table 3) show students' perceptions of their enjoyment, activity level, and future participation. Students most enjoyed the Buddy Walk, Backyard Games, and the

VA Reel. They were most active in the Backyard Games and the VA Reel, and most likely to participate in the future in the Backyard Games and the Buddy Walk.

Table 3. Post-program Ratings

	Enjoy		PA level		Future participation	
Activity	*M*	*SD*	*M*	*SD*	*M*	*SD*
Buddy walk	4.3	1.07	3.3	1.30	4.1	1.34
Scavenger hunt	3.5	1.84	3.3	1.64	3.7	1.61
Backyard games	4.2	1.46	3.7	1.61	4.2	1.33
VA Reel	3.9	1.70	3.9	1.49	3.7	1.49
Yoga	3.2	1.96	3.0	1.83	3.8	1.50
2 x 2	2.9	1.89	2.9	1.83	3.3	1.60
Noodle games	3.3	2.05	3.4	1.82	3.8	1.53

Note. n=66, response range from 1-5.

Analysis of the post-survey responses and interviews led to the development of three major themes, *Enjoyment and Physical Activity Participation*, *Physical Activity Program Design*, and *Physical Activity and Wellbeing.* The themes were confirmed through peer debriefing.

Enjoyment and Physical Activity Participation

When asked, "What did you enjoy about the activity?" two of six students who were interviewed reported fun as the top descriptive. Enjoyment was described as "really fun," "laugh and just have fun," "the feeling of being silly," "particularly enjoyable," "enjoying yourself," and "a fun way to exercise." Student ratings from the post-survey show their three most enjoyable activities were the Buddy Walk, Backyard Games, and the Virginia Reel (Table 3). The least enjoyable activity was the 2x2 activity; this finding was supported by an interviewee who stated, "The 2x2 wasn't bad. It just seemed the most like exercise, and I prefer to trick my mind and exercise through games." It was also supported by the descriptive data from the PAAS, which

was taken immediately after each PA session, showing that students most enjoyed the Backyard Games and the Virginia Reel (Table 2).

Fun was repeated as the most frequent response for 33% of post-survey participants and2 of 6 interviewees when asked, “What did you enjoy about the four-week program?” This answer was represented as “fun” on the post-survey and “fun,” “a lot of fun,” “really enjoyed,” “particularly enjoyable,” and “a fun way to exercise” in the interviews (Appendix J). Similar results were found when interviewees were asked, “What did you enjoy about the activity?” Thirty percent of the interviewees responded with, “Fun” (Appendix J).

Physical Activity Program Design

Survey and interview responses contributed to the development of the second major theme, Physical Activity Program Design. Participants were asked, “What would make the activity better?” in the post-PA session survey. For each activity, the top reply was, “Nothing.” The Virginia Reel led the way with 46% of participants commenting that nothing would make it better. Other positive comments for PA sessions included, “More time,” more walks,” “wouldn’t change anything,” “good as it is right now,” “do more of it,” and “not really.” Although “nothing” was the top reply, other responses suggested modification of the program design. Some suggestions are out of the researcher’s control; these suggestions include “snacks,” “coffee,” and facilities and equipment concerns voiced as “different mats,” “cooler air,” “better AC,” “darker area,” “injury,” and “illness.” Other suggestions can be heeded; these suggestions include “more choices,” “more specific instructions,” “variety of music,” “finding the right buddy,” and “more time” (Appendix K).

Participants’ post-survey responses for bettering the overall program mirrored the activity results with 33% replying, “Nothing.” Other responses included “variety of games,”

"more games," "more time," and "more music." Participants also mentioned areas that would be difficult to change such as "more people in the class," "the weather," and "coffee" (Appendix K).

Physical Activity and Wellbeing

A third major theme emerging from student interview responses is Physical Activity and Wellbeing. When asked how being physically active affects you, interviewees answered two different ways. One way included emotional benefits such as "able to clear your mind," "grateful I can do it," "very positive," and "feel really good about myself." A second way included physical benefits such as "more awake for the rest of the day," "body felt ready for my day," "getting some movement in," and "better for my body" (Appendix L).

Revisiting PA enjoyment, replies to the open-ended question from the post-survey and the interviews, "What did you enjoy about the physical activity?" (Appendix J) could be grouped into the dimensions of the wellness model used in the Wellness for Life course and for the College (Appendix L). From all interview responses, 16% represented the physical dimension by comments such as "walking around," "run and play," "get moving," "playing games," and the specific activities such as badminton, dancing, and walking; 16% responses represented the intellectual dimension by comments such as "to learn more about Salem," "being able to find things I never knew were there," getting to learn a new dance in one day," and "engaging your mind, too;" 15% represented the community dimension as "got to talk to someone," "nice that I got to know someone who I wouldn't have gotten to know," "social aspect," "felt more connected with others in my group," and "got to dance with your partner." Six percent of responses represented the environmental dimension through "a really pretty place," "getting outside," "interacting with our environment," and "all those little outdoor adventures." One percent of responses, "you don't need anything but yourself," represented the financial dimension (1%) as

"you don't need anything but yourself." The only dimensions not directly reported were the spiritual and occupational dimensions.

Discussion and Implications for Practice

This study was designed to increase PA motivation, enjoyment and participation, and ultimately enhance wellbeing of female college students through a four-week PA program. Student input from a preliminary survey along with the literature, drove the design and implementation of the PA program.

The evidence-based program offered non-competitive, social, moderate intensity and enjoyable PA, as research shows women are more likely to be active when they enjoy the activity (Lloyd & Little, 2010). For every PA session in this study, fun ranked as the top response to what participants enjoyed. Beyond fun, all other dimensions of wellbeing except spiritual and occupational were represented. For example, participants responded that PA was "really good for my body" (physical), "a good time for my mind to just relax," (emotional), "great to not need anything but myself," (financial), "a time to interact with our environment" (environment), "nice to just talk with people," (community), and "a time to learn and engage my mind" (intellectual).

Through post-program ratings in the post-survey, participants especially enjoyed the Buddy Walk, Backyard Games, and the Virginia Reel. They perceived themselves to be most physically active in the Backyard Games and the Virginia Reel, and they were most likely to continue being active through Backyard Games and the Buddy Walk (Table 3). Interviewees added that they were most likely to continue "walking because I don't need anything but myself and that's peak convenience," (Buddy Walk) "definitely playing badminton" (Backyard Games), or "anything that seemed fun and not like exercise" (Appendix J). The 2 x 2 activity, which was described by one interviewee as "the PA that seemed too much like exercise" (Appendix J), had the lowest enjoyment level, the lowest physical activity level, and the lowest intention to continue

in the future (Table 3). Once again, these ratings support the evidence that women prefer social, moderate intensity, and non-competitive PA (Lloyd & Little, 2010).

Although this study did not address the impact on future PA participation, interview information suggests an intention to continue to be physically active. All interviewees shared that they are likely to continue being physically active for a number of reasons, including "because I know it's good for me," "it will clear my head," "it will make me have more energy, and "fresh air is always good for me" (Appendix J).

Utilization of a strengths-based approach also has implications for practice, recognizing that community efforts enhance success (King & Gonzalez, 2018). Equipment was borrowed, peers served as guest instructors, colleagues assisted with logistics, and contributed to lesson plan ideas. It is advantageous to recognize our strengths and limitations and enlist the help of others whose strengths support our efforts (Kretzmann & McKnight, 1996).

Study limitations include having one small sample from wellness classes at one college. There were no controls or comparison groups. Not all participants completed the pre- and post-surveys or participated in all PA sessions. The end of the study coincided with the end of the semester; this timing likely contributed to class absences and minimal time and interest in participating in the interviews. From the post-session survey, when asked, "What would make the activity better?" participants requested more time and more activities (Appendix J); if these suggestions were met, the pre-post scores might show greater changes, particularly for wellbeing. Still, the results are promising in that students did enjoy and positively respond to the program. As one interviewee stated, "It was fun to engage my mind and my body, this program made exercise seem fun, and it was perfect timing for college students" (Appendix J).

CHAPTER II

DISSEMINATION

Results from the study and suggestions for program development and implementation will be shared with physical education (PE) activity instructors, the Student Affairs (SA) staff, and any interested employees at the College. The PE instructors and SA staff work directly with students to increase physical activity (PA) and enhance overall wellbeing. They have also offered logistical support and encouragement for the study. Awareness, education, and strategies for teaching and learning are goals of dissemination.

Sharing will occur through a one-hour, experiential session facilitated by the researcher. The experience is designed to mimic a PA session from the study. It will offer time to connect with each other and build community through enjoyable PA, learn new information about our student population, and discuss future programs on campus. Established positive relationships with colleagues should enhance the experience and support successful future work with PA and student wellbeing. Guests will be invited to come to the campus gymnasium to participate in the Virginia (VA) Reel (Appendix M). The folk dance is noncompetitive and includes music, social interaction, a moderate level of physical activity, and a high level of enjoyment.

Initially, the presentation (Appendix N) will include the current health status of female college students and the program design for the study. Next, guests will participate in the VA Reel and complete a short reflective activity. Building on the PA experience, guests will learn more about the program and results of the study. Participants will discuss what the results mean for revising and continuing the PA program. The researcher will solicit suggestions from the audience for teaching and learning. Comments will be accepted throughout the presentation.

Script for Slide Presentation

Slide 1: Welcome

Good afternoon and thank you for coming to this fun session today where we will discuss my dissertation study entitled Be Well! An Experiential Approach to Increasing Physical Activity and Enhancing Student Wellbeing. Why would I choose this topic? As the Director of Student Wellbeing and instructor of our required Wellness for Life course, I am well-connected with our students. I am genuinely interested in their wellbeing. Their mental health concerns are high and their PA levels are low. From what I've learned, most of us need to have some fun to learn well, and PA is no exception.

Slide 2: Current Data

Let's look at the current PA and mental health data for female college students and for Salem students, in particular. You can see that PA levels are declining and mental health concerns are rising, and that Salem students are trending worse than the national averages.

Slide 3: Program Design

What can we do? Get moving! To ensure participation, this program was incorporated into the wellness classes. For four weeks, twice a week, for about 30 minutes, students participated in what I hoped would be fun PA. That PA included backyard games, buddy walks, yoga, noodle games, and folk dancing. Activities were intended to be social, non-competitive, moderate, and fun.

Slide 4: Virginia Reel

Let's go have some fun!

Slide 5: Enjoyment Survey

Mentimeter activity—go to www.menti.com and enter the following code, 08 13 16, to record your responses to the following statement, "Please share three descriptive words about this

PA, the VA Reel." Once the responses have populated, we'll discuss. Tell me what you notice. (prompt, if needed—similar, different, dimensions such as social, emotional, physical, etc.) Next, we'll connect your results to the study results.

Slide 6: Study Results

Let's look at the program ratings of enjoyment, activity level, and future participation. Why? Because when we plan lessons for all of our classes, we want our students to enjoy themselves, be sufficiently active, and want to continue to be active in the future.

Slide 7: Application

I'd like for you to leave today's session having learned something that will enhance your teaching practice. On the far wall, you can see the large piece of paper. There's a basket of markers on the nearby table. The paper is divided into three sections, including enjoyment, activity level, and future participation. Step 1: please think about the classes you teach and write suggestions for teaching and learning in each section. You can write more than one per section. Step 2: step back and reflect on what you see. Step 3: if you see similarities, circle them and then connect them with a line. If you have a question about what a colleague has written, please add a question mark and your first name beside the suggestion. Step 4: Have a conversation! Step 5: share suggestions for program design and implementation with the greater group

Slide 8: Thank You

Thank you so much for coming today and joining the fun! I'm available for further conversations, if desired. I can be found walking around campus or in the woods or even by email or phone.

CHAPTER III

ACTION PLAN

This research project serves as a cornerstone for program development and implementation intended to increase female college students' PA participation and enhance their wellbeing. The study demonstrated that female college students enjoy moderate intensity PA that is social, noncompetitive, and sometimes includes music and the outdoors. As a teacher and program director, I will use this information to guide best practices for myself and others. My action plan is organized by three sections, which include teaching and learning, collaboration, and presentations. The areas are designed to extend in three directions, first to self, second to my College community, and third, to the greater community.

Teaching and Learning

Whether I am directing campus-wide programs for student wellbeing, convening the wellness committee, or facilitating wellness classes, I consider my primary role to be that of a teacher and a learner. What I learn impacts what I deliver. This study demonstrates that short time periods, such as 30 minutes twice per week, of enjoyable PA can enhance student wellbeing. It shows the importance of utilizing evidence-based information to guide best practices. I can apply what I've learned to my wellness classes and campus-wide wellness programs. For example, I can ask students what types of PA they would find enjoyable, develop and implement such PA, and utilize assessment tools to evaluate student thoughts and behaviors. I will continue to learn from experience and evidence-based information to ensure best practices.

Collaboration

In workplaces with limited financial and human resources, collaboration is a key to successful program development. Moreover, strengths-based collaborations are critical. Instead of wallowing in deficits and needs, the focus is on what is available and possible. Diversity is welcomed as one person's unique strengths and experiences can complement another person's needs. The success of this study was partially due to connections and collaborations. For example, equipment was borrowed from a neighboring institution, specialty topics were taught by guest presenters within and outside the College community, and logistics were executed by many stakeholders. It is my plan to continue to collaborate with my colleagues by regularly discussing how we can best support each other and strategically work together to serve our students. Current collaborations include instructors in the dance, exercise science, and biology departments, counseling services, dining services, the chaplain's office, residential life, center for equity, diversity, and inclusion, student affairs, and the wellness committee. Consistent communication, established relationships, and a shared, genuine interest in student wellbeing support our efforts.

Presentations

Initially, I will share my study results with an experiential learning session at the College. This session, as described in my Dissemination chapter, will be shared with physical education (PE) activity instructors, the Student Affairs (SA) staff, and any interested employees. The session will include information about the current health status of college-aged women, study design and results, an opportunity to participate in an American folk dance, and a discussion about PA enjoyment and best practices for increasing PA and enhancing wellbeing.

In an effort to share my study results with a broader audience, I hope to present my findings at the Student Affairs Administrators in Higher Education (NASPA) Well-Being and Health Promotion Leadership Conference in January 2021. This conference is part of the greater

NASPA Strategies Conference. NASPA serves 15,000 professionals and 1,200 institutions across the globe. The Well-Being and Health Promotion arm of NASPA emphasizes a holistic, integrative, and strategic approach to student wellbeing. This emphasis connects well with the College's integrative view of wellbeing and my strategic efforts to increase PA and enhance student wellbeing.

I also hope to discuss/present my findings with other wellness program directors at small, liberal arts women's colleges located in the southeastern United States, such as Meredith College, Sweet Briar, and Hollins University. I welcome the opportunity to meet like-minded professionals, share successes and challenges, and strategize about future PA and wellness-related programming.

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APPENDIX A

INTRINSIC MOTIVATION INVENTORY (IMI)

Intrinsic Motivation Inventory (IMI)

For each of the following statements, please indicate how true it is for you, using the following scale as a guide:

1	2	3	4	5	6	7
Not at all true			somewhat true			very true

1. I enjoy doing PA very much.
2. PA is fun to do.
3. I think PA is boring.
4. PA does not hold my attention at all.
5. I would describe PA as very interesting.
6. I think PA is quite enjoyable.
7. While I am doing PA, I think about how much I enjoy it.

Scoring information. A higher score represents more of the construct measured in the subscale.

Source: Ryan and Deci (2000)

APPENDIX B

WORLD HEALTH ORGANIZATION WELL-BEING INDEX (WHO-5)

World Health Organization Well-Being Index (WHO-5) (1998 version)

Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. Notice that higher numbers mean better well-being.

Example: If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a tick in the box with the number 3 in the upper right corner.

	Over the last 2 weeks	All of the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
1.	**I have felt cheerful and in good spirits.**	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
2.	**I have felt calm and relaxed.**	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
3.	**I have felt active and vigorous.**	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
4.	**I woke up feeling fresh and rested.**	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0
5.	**My daily life has been filled with things that interest me.**	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ 0

Scoring: The raw score is calculated by totaling the figures of the five answers. The raw score ranges from 0 to 25, 0 representing the worst possible and 25 representing best possible quality of life.

To obtain a percentage score ranging from 0 to 100, the raw score is multiplied by 4. A percentage score of 0 represents the worst possible quality of life, whereas a score of 100 represents the best possible quality of life.

APPENDIX C

PHYSICAL ACTIVITY ENJOYMENT SCALE (PACES)

Please rate how you feel at the moment about physical activity. Below is a list of feelings with respect to physical activity. For each feeling, please mark the number that best describes you.

1. I enjoy it.								I hate it.
2. I feel bored.								I feel interested.
3. I dislike it.								I like it.
4. I find it pleasurable.								I find it unpleasurable.
5. I am very absorbed in physical activity.								I am not at all absorbed in physical activity.
6. It's not fun at all.								It's a lot of fun.
7. I find it energizing.								I find it tiring.
8. It makes me depressed.								It makes me happy.
9. It's very pleasant.								It's very unpleasant.
10. I feel good physically while doing it.								I feel bad physically while doing it.
11. It's very invigorating.								It's not at all invigorating.
12. I am very frustrated by it.								I am not at all frustrated by it.
13. It's very gratifying.								It's not at all gratifying.

14. It's very exhilarating.								It's not at all exhilarating.
15. It's not at all stimulating.								It's very stimulating.
16. It gives me a strong sense of accomplishment.								It does not give me any sense of accomplishment.
17. It's very refreshing.								It's not at all refreshing.
18. I feel as though I would rather be doing something else.								I feel as though there is nothing else I would rather be doing.

Source: Adapted from Kendzierski and DeCarlo (1991).

Scoring: For items 1, 4, 5, 7, 9, 10, 11, 13, 14, 16, and 17, reverse the point values. For example, if the participant answered 1, give a score of 7; if the participant answered 2, give a score of 6; etc. Add all of the items. Higher scores reflect greater enjoyment from physical activity.

APPENDIX D

GODIN-SHEPHARD LEISURE-TIME PHYSICAL ACTIVITY QUESTIONNAIRE

During a typical **7-day period** (a week), how many times on the average do you do The following kinds of exercise for **more than 15 minutes** during your free time (write on each line the appropriate number).

	Times per week
STRENUOUS EXERCISE (HEART BEATS RAPIDLY) (e.g., running, jogging, hockey, football, soccer, squash, basketball, cross country skiing, judo, roller skating, vigorous swimming, vigorous long-distance bicycling)	_____
MODERATE EXERCISE (NOT EXHAUSTING) (e.g., fast walking, baseball, tennis, easy bicycling, volleyball, badminton, easy swimming, alpine skiing, popular and folk dancing)	_____
MILD EXERCISE (MINIMAL EFFORT) (e.g., yoga, archery, fishing from river bank, bowling, horseshoeing, golf without using a cart, snow-mobiling, easy walking)	_____

Source: Godin (2011)

Scoring: First, weekly frequencies of strenuous, moderate, and mild activities are multiplied by nine, five, and three, respectively. The three latter values correspond to MET values for the activities. Second, the total weekly score is calculated by summing the three sections. According to Godin (2011), 24 units or more is classified as active (substantial benefits); 14 to 23 units is classified as moderately active (some benefits); and less than 14 units is classified as insufficiently active (less substantial or low benefits).

APPENDIX E

THE PHYSICAL ACTIVITY AFFECT SCALE (PAAS)

Instructions: Please use the following scale to indicate the extent to which each word below describes how you feel at this moment in time. Record your responses by circling the appropriate number.

	Do Not Feel	*Feel Slightly*	*Feel Moderately*	*Feel Strongly*	*Feel Very Strongly*
1. Upbeat	0	1	2	3	4
2. Calm	0	1	2	3	4
3. Energetic	0	1	2	3	4
4. Tired	0	1	2	3	4
5. Peaceful	0	1	2	3	4
6. Miserable	0	1	2	3	4
7. Worn-out	0	1	2	3	4
8. Relaxed	0	1	2	3	4
9. Fatigued	0	1	2	3	4
10. Discouraged	0	1	2	3	4
11. Enthusiastic	0	1	2	3	4
12. Crummy	0	1	2	3	4

Note. Subscales and corresponding items are as follows: Positive Affect (1, 3, 11); Negative Affect (6, 10, 12); Fatigue (4, 7, 9); Tranquility (2, 5, 8).

APPENDIX F

ENJOYMENT SURVEY OPEN-ENDED QUESTION

Please answer the following question, “What would make the activity better?”

APPENDIX G

POST-PROGRAM EVALUATION SURVEY

1. Please rate the physical activities based on enjoyment, activity level, and future participation in the activity from 1 to 5, with 1 being the least enjoyable/lowest activity level/least likely to participate in the future and 5 being the most enjoyable/highest activity level/most likely to participate in the future.

	RATING		
Physical Activity	**Enjoyment**	**Activity level**	**Future participation**
Buddy walk	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
Buddy walk - scavenger hunt	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
Backyard games	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
Backyard games	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
Folk dance	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
Yoga	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
2 x 2 Activities	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5
Noodle Games	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5

2. What did you enjoy about the four-week physical activity program?
3. What would make the program better?

APPENDIX H

INTERVIEW SCRIPT

Thank you for your willingness to participate in today's focus group. The purpose of the focus group is to learn more about your experiences during the four-week physical activity program. As a reminder, your participation is completely voluntary, you may exit at any time, and your participation in no way affects your grade.

I hope to learn what you enjoyed and did not enjoy about the PA activities, what would make the activities better in the future, if you are likely to continue being active, and ultimately if participation enhanced your wellbeing.

You might see me taking notes and our conversation will be recorded; I am doing so because I want to ensure receiving all of your comments. All information will be de-identified and kept confidential. Before finalizing the results, I will check with you by email to ensure accuracy of your statements.

Are there any questions before we begin?

General thoughts

1. Tell me about your experience during the 4-week physical activity program.
2. What was the best part about the four-week physical activity program?

Program specifics (Activity specifics)

Students will be given a list of activities. Next, I'll ask about your experiences with each activity, including what you liked and what you would change to make each activity better. We'll start with yoga. 1. Yoga

   a. Tell me what you liked about yoga.
   b. Tell me what you would change to make it better.

2. Buddy Walk
   a. Tell me what you liked about yoga.
   b. Tell me what you would change to make it better.
3. Buddy Walk - Scavenger Hunt
   a. Tell me what you liked about yoga.
   b. Tell me what you would change to make it better.
4. Backyard Games - indoor
   a. Tell me what you liked about yoga.
   b. Tell me what you would change to make it better.
5. Backyard Games - outdoor
   a. Tell me what you liked about yoga.
   b. Tell me what you would change to make it better.
6. 2 x 2 activities
   a. Tell me what you liked about yoga.
   b. Tell me what you would change to make it better.

7. Noodle games
    a. Tell me what you liked about yoga.
    b. Tell me what you would change to make it better.
8. Folk Dance
    a. Tell me what you liked about yoga.
    b. Tell me what you would change to make it better.

Connection to Student Wellbeing

1. How does physical activity affect you – positively or negatively?
2. Are there any parts of the program or specific activities that made you feel better or worse in any way?

Future PA Participation

1. Now that the four-week program has ended, how likely are you to continue being physically active?
    a. How will you continue to be active?
2. Do you plan to continue any of the activities?

Final Thoughts/Wrap-Up

1. What would you change to make the 4-week program better?
2. Do you have any final thoughts about the 4-week program? Or about PA in general?

If no, conclude the session with the following statement: Thank you for participating in today's focus group. Your participation and thoughts will clarify and enrich the study data and support more effective physical activity programming on campus. I'll be contacting you and sending a summary for you to review for accuracy. Should any questions arise, please contact me at sshardin@uncg.edu.

APPENDIX I

PROGRAM ACTIVITIES

Activity	Category	Self Determination Theory (SDT) Basic Needs Satisfaction	Organization	Setting
Buddy Walk	choice	autonomy; competence; relatedness	Pairs	Outside
Buddy Walk - scavenger hunt	choice; cooperative	autonomy; competence; relatedness	Pairs	Outside
Backyard Games	choice	autonomy; competence; relatedness	Small groups	Gym
Folk Dance (Virginia Reel)	cooperative	competence; relatedness	Large group	Gym
Yoga	individual	competence	Large group	Gym
2x2 Activities	cooperative	competence; relatedness	Pairs	Gym
Noodle Games	cooperative	Autonomy; competence; relatedness	Large group	Gym

APPENDIX J

PA AND ENJOYMENT—OPEN-ENDED RESPONSES

Question: What did you enjoy about the four-week program?

Post-survey program evaluation, Question 20

Specific activity - 27 responses, including folk dancing (5), buddy walks (4), yoga (3), basketball (3), backyard games (3), badminton (2), scooters (2), elementary games (2), dodgeball (1), and free the flip flop (1)

Other – 59 responses, including fun (15), connection with peers (9), mental health/de-stress (6), being active (6), academic break (5), variety of activities (5), tried new things (3), choice (2), everything (2), outside (1), accepting environment (1), now that it's over (1), teacher's enthusiasm (1), visit from Dr. nice lady (1), and easy (1)

Interviews – overall program

Able to get out of our comfort zone
Dancing was really fun
Having a dedicated time to be exercising
Enjoyed the four weeks overall
Enjoyed the activities we did
Do something that I may have never done before
Open my horizons for how I could actually go out and do activities
Felt more energized
Thought it was really great
Having the dedicated time to exercise
Having a time set
The activities were adaptable for like a short amount of time or a longer amount of time if I wanted to do them again

Interviews – specific physical activities

ACTIVITY: YOGA

The time that I had to commit to doing nothing
Really enjoyed the yoga
Instructor
Really good for your body
A good time for your mind to just relax
Since I had yoga in the morning, I just felt more relaxed and prepared for the rest of the day
Getting to laugh at everyone when we'd have to do poses we couldn't do

ACTIVITY: BUDDY WALK

Got to talk to someone
Learning about her & her family

Nice that I got to know someone who I wouldn't have gotten to know
Easiest thing for me to do
I can regulate how much time I go out
Social aspect
Actually talk with another person
Go out and look at Old Salem
Try to find paths we didn't know where they went to
All those little adventures
Social aspect
How you don't need anything but yourself; that is peak convenience for me at least
Very easy to walk around
A really pretty place
You can just wander around and you don't have to know where you're going
Self-paced
Got to know people that I didn't know before our class
Nice to just talk with people
Talk to people
Get moving
Getting out of a desk
Getting outside
Went our separate ways but then regrouped and took a big buddy walk

ACTIVITY: BUDDY WALK SCAVENGER HUNT

Really fun
Laughed a lot
Able to explore the campus in places that we never really seen or never had to be
Enjoyable to learn more about Salem
Felt more connected with others in my group
Making fond memories
The fun of the experience
Have a place to go now
High fives
Silly faces
Be your favorite book character
Adds an extra layer or meaning to those places that we did go
Interacting with our environment as well as the people around us
The peace pole
Liked how it was different from the buddy walk
Walking with a purpose
Weren't just strolling
You knew where you were going
You had a list

Walking around
Being able to find things that I never knew were there, like the peace pole
Walking from the pit with Lee

ACTIVITY: BACKYARD GAMES

Playing badminton with Lainey
A lot of fun
Have fun
Forget your troubles
Remember what it was like to run and play and talk and have fun
It's okay to have fun
Okay to goof off and laugh
Liked the freedom
Playing basketball
Freedom of getting to choose
So many options
I love badminton
Didn't know that I like badminton; it was new to me but i think it was so fun
Really enjoyed the competitive badminton
Getting to play games that I used to play in elementary school that I always loved
Dodgeball was a blast
The squeaky frogs and the parachute
So many memories of elementary school

ACTIVITY: 2 x 2

Meet other people in ways that we wouldn't before
Have that movement just to refresh the mind
Just to forget that you're in college and quote unquote an adult
Laugh
Goof off for an hour or two
Not have to study all the time
Having the motivation of a time limit to get moving
A competitive edge
Switching partners
Doing something different every time
How each activity was very short; if you didn't like it, it was over quickly

ACTIVITY: NOODLE GAMES

Competition
A lot of fun
Laugh at how silly we are
The feeling of being silly
Laugh and just have fun
Some of my best memories
Laugh

Really liked the noodle games
So funny
Some people were really good at it
Really fun to play with them
Their face was very competitive and their actions were very competitive but they were holding like a pool noodle so that was funny
Getting to hit people

ACTIVITY: VIRGINIA REEL

Love dancing
Particularly enjoyable
Doing something somewhat the same but letting them do it their own way
Laughter
Do something we've never done before
Just to bring back good memories, simpler times
Don't have to be so serious all the time
There's more to life than just getting good grades
Make sure you're well, having fun, and enjoying yourself
Enjoyed learning
A fun way to exercise; it wasn't push-ups or sit-ups
Got to dance with your partner and that was kind of fun
Had something to learn while you were doing it so you were engaging your mind, too, which I really liked
Getting to learn a new dance in one day
Fun

APPENDIX K

PA AND PROGRAM DESIGN—OPEN-ENDED RESPONSES

Question: What would make the program better?

Responses from the Post-survey program evaluation, Question 21

68 responses, including nothing (19), variety of games (18), more choice (9), more time (6), more games (4), not sure (3), temperature/weather (2), more music (1), more people in the class (1), teacher (1), coffee (1), not a required class to graduate (1), TED talks (1), and ability to participate (1).

Responses from Interviews

1-press the importance of it even more and make students reflect

1-stress committing to some type of activity

1-make sure students know they're allowed to have fun, be silly, and they don't have to be serious all the time and focus on academics

2-don't really know

1-a mix of inside/outside

Question: What would make the activity better?

Responses from post-PA session survey (columns 1-4) and interviews (column 5)

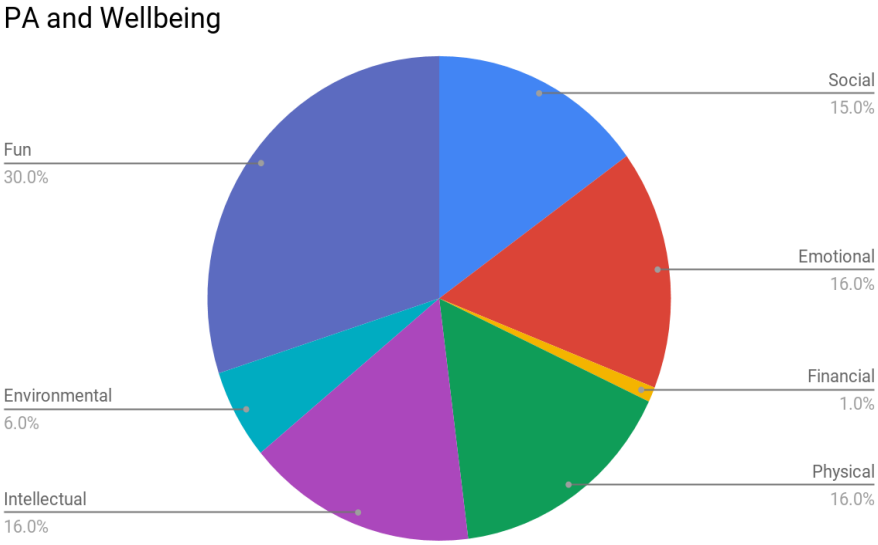
Activity	Top reply	2nd reply	3rd reply	Other replies	From interviews
Buddy walk	Nothing (25%)	Weather	Specific destinations	More time, snacks, friend	Nothing, the right buddy
Backyard games	Nothing (41%)	More time	Variety; equipment	AC, dodgeball, one together, more spaces	More people, more badminton, outside
Scavenger hunt	Nothing (26%)	Weather	More options, more time, more walks	Sleep, snacks, pace, all that walking	Nothing, more items to find
Yoga	Nothing (38%)	Different mats, music	No illness/injury, more physical, more time and participation, cooler, darker	NA	More of it, not really
Noodle games	Nothing (16%), More time (16%)	Better AC	No injury	More people, asthma, need a break, smaller ball	Wider variety, a group game
2 x 2	Nothing (24%)	More time	Sleep, music, choices	No illness, no injury, AC	Play instead of exercise
VA Reel	Nothing (46%)	Variety of music	AC	Louder music, no injury, more time, more partners	Start with different music

APPENDIX L

PA AND WELLBEING

Wellness model from the researcher's institution

Representation of responses from all open-ended enjoyment questions



Note. Spiritual and Occupational dimensions were not represented by any responses.

APPENDIX M

VIRGINIA REEL

Formation: A longways dance that uses a contra formation, the dancers are in partners facing each other to form two parallel lines comprised of 6 to 8 sets of partners. Partners closest to the music are the Head partners and the partners at the other end of the line are known as the Foot partners.

X X X X X **X** **X** X X X X **X**

X X X X X **X** **X** X X X X **X**

X= Head partners **X = Foot partners**

Movements: Walking, Sliding, Skipping, Do-Si-Do, Elbow Swing, Hand through right and left.

Description:
1. Forward and Back. Partners walk four steps forward toward each other and bow on the 4th step. (4 counts) Partners walk four steps backward away from each other back to their place. (4 counts)

2. Right Hand Through. Partners walk forward, grab Right hands, walk clockwise in a circle, and return to their place (8 counts). [A right elbow swing can be used as a variation] or substitute this for a Right Elbow Swing.

3. Left Hand Through. Partners walk forward, grab Left hands, walk counterclockwise in the circle, and return to their place (8 counts). [A left elbow swing can be used as a variation] or substitute this for a Left Elbow Swing.

4. Do-Si-Do. Partners walk forward, pass right shoulders, take one side step to the right, and walk backward passing left shoulders (8 counts) [An elbow swing can be used in place of the Do-Si-Do].

5. Head Partners Down and Back. Head partners face each other, perform 8 slides moving toward the foot of the set and 8 slides back to the head of the set (16 counts) [8 counts down and 8 counts back].

6. Reel the Set. Head partners do a right elbow swing (4 counts). After the right elbow swing, the head partners swing left elbows with the person on the opposite side of the line where they were facing who is next in the line (4 counts). Head partners meet in the middle of the parallel lines and swing right elbows (4 counts). Next, left elbow swing with the next person in the line who is on the opposite side (4 counts). Head partners meet in the middle of the lines and swing right elbows (4 counts). Continue the reel until the head partners have performed the left elbow swing with each person in the opposite facing line, always meeting their partner for a right elbow swing in between. [The Reel can be eliminated to make the dance less complex for younger children]

7. Slide Back Up. When the head partners get to the end of the line, they slide back up to the head of the line (8 counts).

8. Cast Off. Also called “Peel the Banana” or “Hit the Highway” or “Strip the Willow.” Head partners face the front of the line and all other dancers face the head partner in a single file line. At the same time, the Head partner on the left turns to the left and walks toward the foot of the line, and all dancers follow and the Head partner on the right turns to the right and walks toward the foot of the line and all dancers follow. (16 counts)

9. The Arch. When the Head partners reach the foot of the line, they face each other and form an arch by holding hands raised up high. The other dancers, now led by the second set of partners, walk under the arch, and the second set of partners now becomes the new Head partners, and the dance begins again.

11. The dance continues until all partners have had an opportunity to be a Head partner.

APPENDIX N

SLIDESHOW FOR INSTRUCTORS

UNCG Find your way here

Be Well!
A Strengths-Based Approach to Increasing Physical Activity and Enhancing Student Wellbeing

Susan S. Harding, Ed.D.
Summer 2020

UNCG Find your way here

Current Data for Female College Students

PA levels: low
Mental health concerns: high

Results from the ACHA-NCHA II (2019)

PA: 56% insufficiently active
Stress:

- average - 32.4%
- more than average - 48.2%
- tremendous - 14.5%

Find your way here

What can we do?
Find out what they like!

fun - social - moderate - non-competitive

Program Design:

- 4 weeks, twice a week for 30 minutes
- Backyard Games, Buddy Walks, Yoga, Noodle Games, 2 x 2, VA Reel

Find your way here

Let's Do it!

Welcome to the Virginia Reel

Find your way here

ENJOYMENT

Go to www.menti.com
Enter the following code, 08 13 16

Record your responses to the following prompt,
"Please share three descriptive words about
the VA Reel.

Find your way here

STUDY RESULTS

	PosAff	NegAff	Fatigue	Tranquility
Buddy Walk	2.37	.40	1.16	2.49
VA Reel	3.04	.24	1.10	2.15
Backyard Games	3.21	.25	.96	2.32
Buddy Walk Scavenger Hunt	1.93	.49	.97	2.05
Yoga	1.83	.49	1.03	2.99
Noodle Games	2.96	.31	1.40	1.47
2 x 2	2.63	.26	.93	2.29

Find your way here

APPLICATION

Wall of Wonder

Think - Reflect
Similarities - Differences
Connections - Conversations

SUGGESTIONS FOR
TEACHING & LEARNING

Find your way here

THANK YOU!

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