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THE EFFECT OF PHYSICAL ACTIVITY COURSES ON THE MOTIVATION FOR PHYSICAL ACTIVITY IN COLLEGE STUDENTS: A SCOPING REVIEW

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THE EFFECT OF PHYSICAL ACTIVITY
COURSES ON THE MOTIVATION FOR PHYSICAL
ACTIVITY IN COLLEGE STUDENTS: A SCOPING REVIEW

THESIS

A thesis submitted in partial fulfillment of the
requirements for the degree of Master of Science in the
College of Education
at the University of Kentucky

By

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Junction City, Kentucky

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2023

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ABSTRACT OF THESIS

THE EFFECT OF PHYSICAL ACTIVITY COURSES ON THE MOTIVATION FOR PHYSICAL ACTIVITY IN COLLEGE STUDENTS: A SCOPING REVIEW

The lack of physical activity and exercise participation has been an ongoing problem for young adults aged 18-24. Universities and colleges worldwide offer a variety of required and elective physical activity courses for college credit to increase active participation in lifelong healthy lifestyles. This scoping review collected studies on college students' motivation to participate in physical activity. The courses were taught using methods based on motivational theories. The authors of the studies collected information from the students before and after the classes to gather data on the theoretical framework's effect on the students, if any. This review compiles this information, identifies any gaps in the literature, and makes recommendations for classroom applications or research for future studies.

KEYWORDS: Physical Activity, College Student, Motivational Theory, Physical Education, College Course

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DEDICATION

To my incredibly patient husband, who has supported me through this ride and held the house down in the process. To my kiddos, who have been so sweet and understanding of my long nights, I cannot wait to give you all the cuddles and play Roblox for hours. To my parents for the ongoing support and love. To Dr. C for inspiring me to further my career and making me love psychology. To Dr. Erwin and Dr. Beighle for helping a girl out. To Dr. Ickes for keeping me held together and believing in me even when I did not.

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CHAPTER 1. INTRODUCTION

1.1 Background

It is well-established in academic and non-academic communities that exercise and physical activity [PA] are beneficial (Fedewa & Ahn, 2011; Fredriksson et al., 2018; Morrow et al., 2004; Zieff et al., 2006). Even though the non-academic community may not have an extensive understanding of the benefits of regular physical activity and exercise, the majority generally understand the positive effect on physical and mental health. A good portion of our understanding may be attributed to physical education programs that occurred throughout our childhood and adolescent years (i.e., mandatory physical education in schools), as well as a tradition of health and physical education programs at colleges and universities around the world for over 100 years (Hensley, 2000; Zieff et al., 2006), which continues to evolve and gain popularity today. Even though many colleges offer courses to assist students in participating in physical activity, both in sports and health-related contexts, many programs must advocate to maintain their presence in the course catalog (Hensley, 2000). Moreover, Beaudoin et al. (2018) state that between 1920 and 1930, 97% of higher education facilities required physical activity and education courses. According to Hensley (2000), approximately 90% of academic institutions required a physical education component for undergraduates through the mid-1960s.

Additionally, the number of such courses appears to have decreased significantly, with the majority now available as optional electives. Given the importance of physical activity during college, this creates concern for many health education experts. Specifically, the Center for Disease Control [CDC] reports that, for young adults aged 18-24 years, 17% reported that they had not participated in any physical activity program in

the last 30 days and that only 28% meet the recommended minimum physical activity guidelines for aerobic and muscle strengthening (CDC, 2023). In addition, many studies have shown that physical activity in college is significantly related to physical activity later in life (e.g., Hultquist et al., 2009; Pearman et al., 1997; Sparling & Snow, 2002) and that college is a critical time of transition where young adults establish life-long patterns of health behavior (Nelson et al., 2008).

Late adolescence into adulthood is when young adults learn independence and become responsible for themselves, especially when they have moved away to college (Sparling & Snow, 2002). The National Center for Education Statistics (2023) states that of the 2.7 million high school students who received their diploma or GED in the first nine months of 2021, 1.7 million (or 62 percent) went on to enroll in college that fall semester. These students will likely develop physical activity patterns during their time in college since they are expected to assume responsibilities and live a lifestyle mimicking adulthood (Sacko et al., 2017). Often referred to as “emerging adulthood,” it is a period in which one develops an identity, sometimes including establishing healthy lifestyle characteristics and behaviors (Nelson et al., 2008). It should be noted, however, that this same transitional period occurs when physical activity drops at one of the highest rates in a lifetime. A study by Nelson et al. (2007) showed that the percentage of college students meeting the recommended criteria for vigorous physical activity in the United States (47.6%) declined sharply from the percentage of students meeting the criteria during high school (70.7%).

Many studies discuss the reasons behind the decline in physical activity from high school to college to middle adulthood. Some believe their decline in physical activity is

primarily attributed to the demands of their work-study schedules and the independence they have gained since becoming adults. (Bhochhibhoya, 2014). According to Leenders and colleagues (2003), approximately one in four students reported feeling frequently overwhelmed by the amount of work they had to do the previous year. Unlike younger populations, young adults are less likely to be sedentary in front of a television or playing video games. Instead, they are more likely to be sedentary while working on the computer, reading, or doing schoolwork (Buckworth & Nigg, 2004). A study of 135 college students (mean age 19.89) found they spent 6.2-7.7 hours sitting and another 7-9 hours sleeping or reclining (Maldari, 2016). This sedentary activity also continues to increase with the age of college students, likely because of the increased academic demands of upper-level courses (Buckworth & Nigg, 2004).

Many college students grew up playing sports that kept them highly active as a child or adolescents. According to CDC data collected from high school students from 1991-2021, approximately 49.1% of high school students participated on at least one sports team in 2021. Some researchers theorize that students who were active and competitive in sports during high school may become sedentary once the competition is over, mainly if they played for extrinsic reasons, like trophies, conference titles, or popularity (National Association for Sport and Physical Education, 2007). It is also possible that declines in activity rates are related to fewer opportunities for participation in organized sports (Nelson et al., 2007). However, according to Bandura, an individual's self-identity is determined by their core aspects or characteristics that apply to different situations (1999). For example, suppose a person undergoes a significant life change, like

going to college. In that case, they may consider themselves to be a different person from the one they were in the past, so they may just not be interested anymore.

Adjusting to life in college also involves acclimating to one's surroundings. Often students need to be made aware of the resources available within their community, including those related to exercise, both on and off campus (Curry et al., 2015). Most college campuses have exercise facilities available to all students, with many offering gym spaces, free weights, and classes. As a result, many assume that exercise engagement increases for those living on campus due to access. However, the findings in this area are somewhat mixed. While students who live near gym facilities are more likely to use them than their off-campus counterparts, Kapinos and Yakusheva (2011) discovered that students who live in centrally located residences engage in less overall physical activity due to their proximity to classes and dining halls. For those living off campus, lack of transportation to facilities and class or work schedules that do not allow much time in between can also limit those options. As the semester progresses, students who find time to get to the gym typically prioritize their increased school workload, spending less time on physical activity and exercise overall (Curry et al., 2015).

1.2 Purpose

Most experts agree that physical activity is dangerously low within the young adult population, with nearly $\frac{3}{4}$ of this group not meeting recommended guidelines to maintain physical fitness (CDC, 2023). Academic institutions tend to agree that continuing physical education courses in schools is vital, and if given a choice, they would make it required instead of elective (Hensley, 2000). In addition, they believe that the most critical elements include facilitating lifelong physical activity participation,

introducing students to the fun of physical activity, assisting them in improving their overall fitness and health, and showing them the value of having physical activity in their lives (Hensley, 2000). However, suppose there is evidence that exercise and physical activity are good for you and that physical education courses are a beneficial way to provide students with that experience and knowledge. The problem is that there are theories and ideas about what motivates young adult college students to become or stay physically active. Nevertheless, nothing has been done to combine these theories and determine what works and what does not. Kim and Lee (2010) state that physical education courses have not been empirically evaluated to analyze the intention to adhere to a healthy lifestyle.

Behavior change cannot be achieved solely through education (Lockwood & Wohl, 2012). Therefore, the importance of education should be considered, but more must be done to change behaviors. Ultimately educational programs incorporating psychological variables (e.g., self-efficacy, attitude, motivation), behavioral skills, and behavior change variables (e.g., self-perception, perseverance, and goal accomplishment) can result in behavior change. (Lockwood & Wohl, 2012). A scoping review identifying how theoretical frameworks can be implemented into physical activity courses in universities and colleges was completed to demonstrate how this could be accomplished. The goals of this scoping review reported in this research thesis are:

- I. To map out existing literature that explicitly measures the motivation of the students to participate in physical activity after completing a physical activity course based on the motivational theory framework.

- II. To extract and synthesize key findings from the data to organize and understand how different motivational theories affect students.
- III. To apply the extracted data to make recommendations for educators and future researchers.
- IV. To help identify gaps in the literature or areas that may need further study.

CHAPTER 2. LITERATURE REVIEW

2.1 Definitions

Adherence - Commitment to a cause, person, or belief

Autonomy - The ability of an individual to act according to their values and interests

Cognitive - A mental process characterized by perception, memory, judgment, and reasoning, as opposed to a volitional or emotional process.

Competence – A person’s capability to complete a task successfully or efficiently

Elective - A college course that has no apparent connection to your major, minor, or general education requirements.

Exercise - Movement that is planned, structured, repetitive, and intentional in nature, with the purpose of improving or maintaining physical fitness; a subcategory of physical activity

Extrinsic Motivation - Motivation that is fueled by rewards, incentives, or other external factors

Framework - A conceptual structure that supports or guides the creation of something useful.

Intention - A goal that you have and plan to achieve

Intrinsic Motivation - Involvement in an activity for the sake of engaging in it, without being influenced or rewarded by external factors

Lifetime Wellness/Lifetime Fitness for Health – A physical education course for credit that has a physical activity component, either sport or fitness-related

Motivation - An explanation or explanations for why someone acts or behaves in a certain way

Motivational Theory - An examination of how and why a person works toward achieving a specific goal or outcome.

Outcome Expectancy - An individual's perception of the consequences of their actions

Physical Activity - Movements that are produced by skeletal muscles requiring energy expenditure

Relatedness - A desire to feel connected to others and meaningfully involved in the social community

Sedentary - Spends a significant amount of time sitting; somewhat inactive

Self-Control - Managing impulses, emotions, and behaviors to achieve long-term objectives

Self-Efficacy - The belief in one's ability to accomplish a goal or task

Self-Identity - Acknowledging one's abilities and qualities as an individual, particularly in a social context

Self-Regulation - Knowing your behavior and how it can contribute to your success

Volitional - As a result of one's initiative or choice

2.2 Motivational Theory

The science of human behavior is an inexact science. It may be possible to make plausible generalizations about people's behavior in general, but realistically, few of these generalizations can be substantiated under further examination (Skinner, 1965). It is not because it is not accurate but because it is ever-changing, and no one person is identical, creating a nearly impossible variable for scientists to work with. When we look at learning from a behavioral perspective, the environment has a crucial role in the process (Turner, 2001). A learner's ability to master new skills is assessed by how well they acquire associations and components of skills. At the same time, motivation gives the learner incentives to pay attention to specific aspects of a situation and respond appropriately (Skinner, 1965). In reality, various factors can inspire motivation, including the internal elements that motivate action and the external elements that might trigger it (Locke & Latham, 2004).

Throughout the short history of scientific psychology, motivation has been understood in many ways. However, a clear evolution of ideas in human motivation has been primarily driven by empirical evidence, more so than in many other areas of psychology. With the development of new theories, these limitations have been justified, allowing the field to progress from simplicity to sophistication and explanation (Ryan et al., 2019). Early in the study of motivation, or non-motivation, behaviorism was the movement of much of the 20th century. Simply put, they believed outside factors (environmental, situational, etc.) determined behavior, not the person's thought process (Ryan et al., 2019). Various theories emerged from this time, all attempting to determine what makes a person act upon their wants and desires.

It was not until the work of Edward Chase Tolman and Julian Rotter that the "cognitive revolution" was to occur in the field of motivational theory (Ryan et al., 2019). They introduced the world to cognitive mediators, such as expectancy, reinforcement value, and the construct of internal locus of control, which are a part of many significant theories today. However, there may be a direct opposition between motivation studies today and the one described by B. F. Skinner (Ryan et al., 2019). Today, the science of motivation is devoted primarily to studying the psychological and neurological mechanisms that underlie human motivation. Scientists are interested in understanding how actions are selected and regulated through a variety of mechanisms, both experiential and molecular (Ryan et al., 2019). Several reasons explain why empirically oriented motivation researchers are fearless in studying human behavior in its intricacies and complexity. A new generation of methods and tools for motivation research has enabled it to shed light on inner processes like rigorous methods illuminating new

phenomena (Ryan et al., 2019). The following sections will discuss the motivational theories included in this review and how motivational theory plays a role in education and physical activity.

2.2.1 Self-Determination Theory

Various forms of motivation can be distinguished according to their degree of autonomy according to Self-Determination Theory [SDT]. In some situations, behaviors are externally controlled, whereas, in others, they are done voluntarily or autonomously, which impacts persistence and performance quality (Ryan et al., 2019). Based on SDT, people have basic psychological needs related to autonomy (the feeling that they are free), competence (the feeling that they are competent in the skill or task), and relatedness (the feeling that they belong to a group). There is a correlation between well-being and the satisfaction of these three needs, including enhanced intrinsic motivation, when these needs are supported. There is much evidence that autonomy and basic needs are essential for motivation and performance in experimental and controlled studies (Ryan et al., 2019). An SDT approach focuses on inner processes for personality development and behavioral self-regulation by using traditional empirical methods in combination with an organismic metatheory (Ryan & Deci, 2000). It employs traditional empirical methods to address the concerns of human motivation and personality. Consequently, its field of study investigates people's intrinsic growth inclinations, their inherent psychological needs, and the conditions that stimulate self-motivation and individuality (Ryan & Deci, 2000).

2.2.2 Social Cognitive Theory

Social Cognitive Theory [SCT] believes individuals are active participants in their life course rather than passive recipients of environmental events (Bandura, 1999).

Individuals regulate their motivation and the activities they pursue to maintain symbolic, social, psychomotor, and other skills. Contrary to the popular belief that human behavior is the result of factors outside of one's free will, SCT explains that behavior is influenced by three factors that interact as determinants of psychosocial functioning: internal personal factors, behavioral patterns, and environmental events (Bandura, 1999). In addition, three types of environmental structures are distinguished by SCT: the selected environment, the imposed environment, and the constructed environment. A complete understanding of the interactions between behavioral and societal environments requires analyzing what people think as they perform actions. This requires observing their effects and considering their judgments of future outcomes (Bandura, 1999). Expectations are at the heart of SCT. It is important to note that efficacy expectancy refers to an individual's belief that they can achieve or attain a desired outcome in any given situation (Ryan et al., 2019). Individuals with higher efficacy expectations are more likely to enter a situation and are more likely to persist in their efforts. Expectations and beliefs about efficacy are critical mediators of motivation, and motivations are either learned or acquired (Ryan et al., 2019).

2.2.3 Self-Efficacy Theory

A person's sense of mastery or efficacy is the principal mechanism of behavioral and psychological change, according to Self-Efficacy Theory [SET] (Bandura, 1977). This theory proposes two types of related expectancies concerning mastery and coping: (1) an outcome expectancy, which refers to the belief that certain behaviors will or will not result in particular outcomes; and (2) a self-efficacy expectancy, or individuals' perception of their competence in performing certain tasks (Maddox & Stanley, 1986). Self-efficacy expectancy is highly influential in initiating habits and persevering when

faced with frustration or failure. Furthermore, self-efficacy expectations are considered one of the best predictors of the initiation and persistence of behavioral changes (Maddox & Stanley, 1986). It is generally believed that self-efficacy expectancy is derived from four primary sources: vicarious experiences, performance experiences, verbal persuasion, and physiological or emotional arousal. Recent work has focused on three broad theoretical issues and will probably continue to do so. First, researchers examine the influence of various cognitive factors on behavior (e.g., self-efficacy expectation, outcome expectation, and outcome value). Research on the relationship between these cognitive mediators is the second line of inquiry (Maddox & Stanley, 1986). Because of these research avenues, the relationship between cognitions and behavior will provide insight into the relationship between types of cognitions. Also, it is essential to understand the relationship between cognitions to predict behavior based on the evaluation of cognitions. In addition, SET is being used to understand and alleviate problems associated with human adjustment as a third major research push (Maddox & Stanley, 1986).

2.2.4 Trans-Contextual Model

With its multi-theory approach, the trans-contextual model [TCM] uses the self-determination theory and the theory of planned behavior as the basis of its motivation. Through the integration of Self-Determination Theory and Theory of Planned Behavior, we can explain the inexplicable methods within each theory (Barkoukis & Hagger, 2012). The key to this model is that autonomous motivation can affect autonomous motivation in other contexts, like leisure time, because of cross-contextual interaction. As a result, motivation in education can facilitate motivation in other settings and support behavior

participation outside of the classroom. The constructs from the TPB influence the perception of autonomous motivation in the same situation. As a key component of motivational orientation in SDT and expectancy/future-oriented, behavior-specific social cognitive constructs in TPB, recall and prompting play a crucial role in linking the two theories (Barkoukis & Hagger, 2012). A measure of motivation that asks people to recollect their perceived motives for a particular behavior (e.g., exercise) will only compel people to initiate the behavior if they are prompted or asked about their attitude and intentions to engage in that behavior (Barkoukis & Hagger, 2012).

2.2.5 Transtheoretical Model of Behavior Change

According to the Transtheoretical Model [TTM], behavior change is a long-term process involving five stages. To achieve transtheoretical change, principles, and processes from various leading theories are incorporated (Prochaska, 2020). An individual is in the pre-contemplation phase (not ready) if he or she has no immediate plans to act in the foreseeable future, generally within the next six months. Contemplation (getting ready) refers to the stage in which individuals intend to change within the next six months rather than immediately. Individuals in the Preparation (ready) stage intend to act in the upcoming month. When an individual is in the Action stage, changes are often evident, such as quitting smoking, starting an exercise program, or practicing stress management. During maintenance, people are free from problems for six months to five years.

In some cases, there is a termination stage where the individual is 100% certain he or she will not return to high-risk behavior and is not tempted by it. However, this stage

was not considered in the original model. Since it is almost impossible to guarantee that behavior will not be repeated, it is often not considered. Therefore, to use the TTM effectively, it is usually necessary to assess the individual's stage (Prochaska, 2020). Then, it is necessary to help them set realistic goals for the future, such as progressing to the next stage. According to research, if we attempt to move people from Pre-contemplation to Action hurriedly, they may drop out of treatment, stop in the middle of treatment, relapse within a short period, or lie to us (Prochaska, 2020). Therefore, many different theories are often used with the TTM to motivate the individual to move from one stage to the next or prevent relapse.

2.2.6 Theory of Planned Behavior

This theory explains how people act when they are not completely in control of their actions (Ajzen, 1991), and is an extension of the Theory of Reasoned Action. The core of the Theory of Planned Behavior [TPB] lies in the intention of the individual to perform a given behavior. People's intentions are supposed to reflect their motivation for performing a behavior and how much effort they are willing to put forth. Behavior should be more likely to be performed if the intention to engage in it is more substantial. Behavioral intentions, however, can only be expressed if a person can decide to execute or not execute the behavior at will, i.e., if the behavior is under volitional control (Ajzen, 1991). It is possible to meet this requirement quite well in some cases, many are dependent, at least in part, on non-motivational factors like available resources (time, money, skills, and other people's support). Together, these factors show how much control people have over their behavior. People should be able to succeed if they have the resources and opportunities to do so. Perceived behavioral control and how it impacts the

actions and intentions of others are of greater psychological significance than actual control (Ajzen, 1991). The TPB considers perceived behavioral control and adds that element to the Theory of Reasoned Action (Ajzen, 1991). Behavior can be predicted directly using a person's intention and their perceived behavioral control, according to the TPB.

2.3 Motivation Theory Applications in Education

Despite differences in previous knowledge, developmental readiness, or abilities, differences in motivation are essential sources of diversity in the classroom (Seifert & Sutton, 2018). Further, motivation plays a vital role in school learning because merely being present in class does not guarantee that a student is motivated to learn. Students' motivation to learn should not be taken for granted by teachers, and they should take responsibility for ensuring that students remain motivated to learn. As a teacher, one of your most challenging responsibilities is to persuade students to want to perform the tasks they must perform in any case (Seifert & Sutton, 2018). Developing a comprehensive understanding of motivation is essential for ensuring that our classrooms are engaging, encouraging learning and developing talent, supporting the desire to stay in school rather than drop out, and educating teachers on creating a motivating and supportive environment. A current trend in educational psychology highlights the importance of cognitive development and the student's motivation and preferences as critical elements of successful learning and achievement. Motivation research is imperative because it has led to the development of successful interventions for both students and their teachers to improve their quality of life. In numerous studies, students who feel more support from

their teachers for their autonomy report feeling more competent and less anxious, reporting more interest and enjoying their work, and producing higher quality work.

It is not an easy task to apply conceptual understandings to educational practice. Motivation is regarded from various perspectives, each underpinned by a different assumption as to its nature (Kaplan et al., 2012). Motivational theories should be evaluated critically and carefully concerning your beliefs, values, and objectives within the educational setting since they have practical and moral implications. The results of theory-guided interventions in educational settings are often less than optimal, even when motivational theories have been carefully evaluated and selected (Kaplan et al., 2012). Nevertheless, theories can be applied to educational practice in a motivating way, involving the same complex processes which they target. Because of this, the theory can be conceptualized and investigated as a motivational phenomenon (Kaplan et al., 2012).

2.4 Motivational Theory Applications in Physical Activity

Interventions designed to increase the amount of daily physical activity in children and youth require advancements in motivation theory research. Physical activity and competitive sports involve thoughts, emotions, and actions taken by participants and spectators alike. Motivation theories are foundational to understanding these things. Engaging youth in physical activity is dependent on their motivation. Students' motivation to participate in physical education at school is influenced by their teachers, and this is a feasible strategy for encouraging adolescents to engage in physical activity. Setting and achieving fitness goals is central to many theories of motivation for physical activity (Rebar et al., 2021). Motivation for physical activity has expanded thanks to

influences from public health, developmental psychology, social psychology, evolutionary psychology, and neurobiology. Moreover, advances in measurement and analysis have changed theory from a single-event account of motivation and behavior to one that shows motivation and behavior changing moment by moment and acknowledges that maintenance happens over time. When applying theories to real-world situations, it is imperative to remember all theories assume certain things about humans and behavior (Rebar et al., 2021).

Motivation for physical activity or behavior change cannot be characterized by a single, optimal approach. Each person, situation, and moment are different. Thus, physical activity is guided by a wide range of components. Theoretical frameworks try to create rational structures based on these factors, but they sometimes oversimplify the motivational processes behind physical activity (Rebar et al., 2021). Theoretical approaches can contribute in the development of physical activity interventions by recognizing and classifying determinants into clear structures by detecting distinct psychological targets, pathways through which change can be achieved, and the most effective techniques for bringing about change through these pathways and targets (Rebar et al., 2021). We must continue developing theories to help refine our approaches to physical activity intervention. Nevertheless, physical activity behaviors can be understood and potentially enhanced by current theories and those that will emerge.

CHAPTER 3. METHODS

3.1 Protocol

A review protocol was developed but not registered at this time. Due to time limitations and limited interest in this field, there were no additional contributors.

According to the PRISMA-ScR guidelines (Tricco et al., 2018), this portion is optional, though recommended for publication. The goals of this scoping review reported in this research thesis are:

- I. To map out existing literature that explicitly measures the motivation of the students to participate in physical activity after completing a physical activity course based on the motivational theory framework.
- II. To extract and synthesize key findings from the data to organize and understand how different motivational theories affect students.
- III. To apply the extracted data to make recommendations for educators and future researchers.
- IV. To help identify gaps in the literature or areas that may need further study.

3.2 Eligibility Criteria

When considering eligible sources, there were no limits to the dates included. Grey literature was included in the search, as it contains valuable contributions to overall knowledge and provides additional data that published manuscripts do not, like questionnaires, detailed qualitative data, etc. All records must be printed or translated into English, as manually translating articles through online software can lead to errors.

3.3 Information Sources

There were two different databases used to execute record searches. The first database was PubMed through the University of Kentucky library database website. The most recent search on PubMed was completed on January 19, 2023, resulting in 2,187 records returned. The EBSCOhost database was utilized through the University of Kentucky library to search numerous databases simultaneously. These databases included Academic Search Complete, AgeLine, CINAHL with Full Text, eBook Collection (EBSCOhost), ERIC, Health Source - Consumer Edition, MAS Ultra - School Edition, MathSciNet via EBSCOhost, MEDLINE, Newspaper Source, OpenDissertations, Psychology and Behavioral Sciences Collection, APA PsycInfo, Sociological Collection, SPORTDiscus, Teacher Reference Center, TOPICsearch, Consumer Health Reference eBook Collection, Health and Psychosocial Instruments, CINAHL Complete, SPORTDiscus with Full Text. This search returned 1,044 records, with the most recent search being done on March 15, 2023.

3.4 Search

The most recent search of PubMed resulted in over 2,187 records with no limitations or search criteria. The keywords included physical activity, course, and college. The search input was as follows:

((Physical Activity) AND (Course)) AND (College)

Various searches, combinations, and efforts were put into finding the most successful variation of keywords. However, this search was the most successful regarding quality and quantity of returns and providing a large amount of background material. See Figure 4.1 for search results.

3.5 Selection of Sources of Evidence

For Stage 1 of the PubMed article review, the web tool Rayyan was utilized to eliminate articles through duplicate matching and keyword searches. Its artificial intelligence could automatically detect all duplicate or similar articles to be excluded. The software also allows for adding keywords to be excluded or included. For example, after selecting several articles about mice, Rayyan detected that “mice” was likely a keyword that would be excluded, so it was added to the excluded section. When the word “mice” was selected, it brought up the 47 articles that contained the word in the title or abstract, which could then be quickly excluded from the remaining articles.

Additional keywords were added to the exclusion box to exclude those articles easily. In addition, words about illnesses, diseases, and other medical conditions were added, like diabetes, cancer, HIV, and pregnancy. For this review, relatively healthy populations with no pre-existing medical conditions were the center of the study. Further exclusions included populations outside of college students (elderly, non-student community, high school, etc.) and all articles that did not specify physical education, physical activity, or exercise classes in the title or abstract.

After the PubMed articles were narrowed down to the articles that would go on to Stage 2 or have the full text read, it was determined that additional databases needed to be accessed for further records. EBSCOhost was used to search several databases that pertained to psychology, medical, health, school, older adults, sport, exercise, general news and media, and student theses and dissertations for relevant materials. Due to compatibility issues, Rayyan was not utilized for this search, so titles and abstracts were searched by hand. Using the same inclusion population of healthy college students (no

specific age) in a physical activity or education course, Stage 1 title and abstract searches were completed, and full-text articles were saved for a full review.

During Stage 2, full-text articles were read, searching specifically for three initial criteria. The first requirement is that the article was written about a physical education class with a physical activity component or a physical activity class, either sport- or health-related, offered by the university or college for course credit. The article was then excluded if it contained any additional population in the study not related to college students. For example, if the study compared students to community members or interviewed faculty regarding college students. College students were to be the focus of the study and the sole participants. However, comparing participants from a class with a control group of non-participating college students is acceptable. The following requirement for the article is that the theoretical framework being studied must be motivational, with specific exclusions. No studies that discussed only mental health behaviors or topics that could be considered at risk for mental health crises, like body image, depression, etc., were included. Specific motivational theories, including Self-Determination Theory, Achievement Goal Theory, Cognitive Behavior Theory, Theory of Planned Behavior, Transtheoretical Model of Behavior Change, and some lesser-known or used theories and models, were selected for inclusion in this review. Other items excluded in Stage 2 were journals that mainly concentrated on physiological factors, mood improvements or changes, overall health differences, and attitudes towards and overall adherence to physical activity, again just focusing on motivational theory framework implementation in classes and its impact on college students. See Table 1 for a flow chart of the process.

3.6 Data Items

Several critical pieces of information were collected from the total number of records chosen for this review. First, each author was recognized, and the publication year (or year accepted in cases of grey literature). Second, each article was carefully reviewed to identify the used theoretical framework correctly. Third, the population was extracted to verify the size of the sample and the gender, variable status, or other pertinent information to the study. The method(s) of measurement were then obtained to show how the authors determined the study's results. Finally, key findings were acquired from the results and discussions that contributed to the objectives of this review.

3.7 Synthesis of the Results

There were two charts created for the ease of data distribution and comparison. In both charts, the authors' last names and first initials are listed as ordered in the articles and then alphabetized within the chart. The publication/acceptance year is listed next to the authors' names for ease of reference to the complete reference list, citations within the review, or in case of numerous articles by the same author. In the first chart, labeled Table 4.3.1, the next component listed is the theoretical framework identified in the article. In some cases, more than one theory was used, so all theories and models that were the primary sources of discussion and methodology were listed. The chart's fourth element is the population included in the study. Due to space limitations and to keep it easy to read and understand, this was limited to only the final sample included in the study and other information that plays an essential role in differentiating it from other studies and relevant to the study itself. For example, if the participants were from more than one university/college, multiple classes, a specific country, limited to one gender,

etc. For the second chart, the final element included the methods of measurement that the authors used to gather the data for their study. Many of the studies used the same methods, while others adapted from previously published studies, created their own based on guidelines, or used their own.

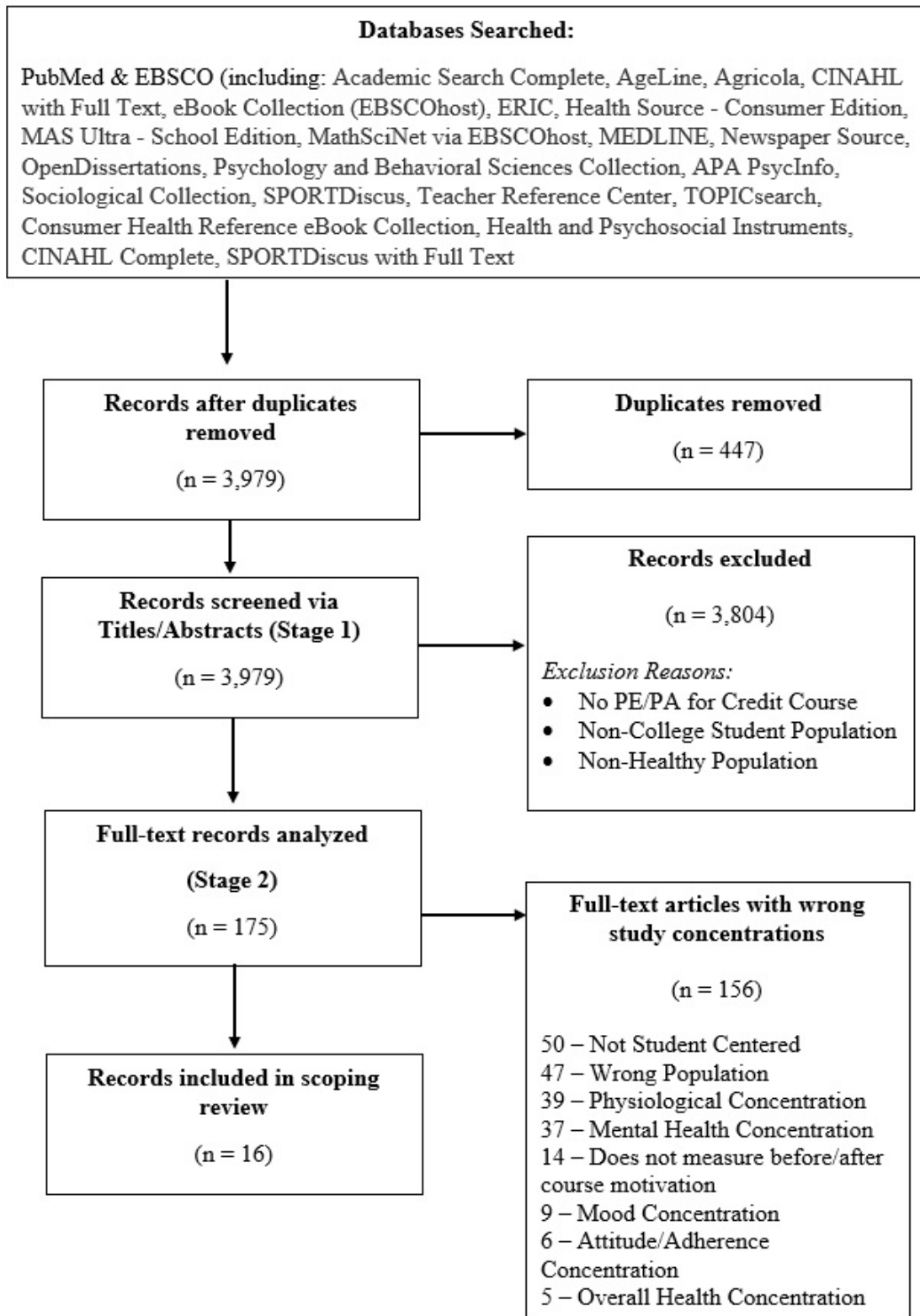
The second chart, located in Table 4.3.2, also contains the same organizational information of authors and dates but instead includes the key findings from the study itself. Relevant conclusions found in the studies are included, regardless of the positive or negative results, the study's limitations, or unexpected outcomes. The chart is limited to only the data that pertains to motivational theory for readability and comparison to previously discussed references. Separating these two critical pieces of information will also make it easy for future study references. For example, suppose you were interested in finding methods of measuring motivation post-Self-Determination Theory-based coursework. You can use Table 4.3.2 to identify the theoretical framework and the methods used within the studies. At the same time, if you wanted to find key findings to only a couple of the studies listed in Table 4.3.2, you can easily find the authors and date and locate the critical findings in a quick and organized fashion.

CHAPTER 4. RESULTS

4.1 Selection of Sources

All searches were done between January and March of 2023. The initial search yielded 4,426 articles. After 447 duplicates were deleted, a total of 3,979 records remained. During Stage 1 selection, all titles and abstracts were examined for relevancy and exclusion criteria listed in Figure 4.1.1. After the Stage 1 review, 3,804 records were excluded and removed. The remaining 175 records moved on to Stage 2, where full-text articles were carefully examined and further subjected to additional exclusion criteria as described in Figure 4.1.1. Additional exclusions were added during Stage 2 to narrow the selection of sources to review and map. Initially, there was no specific exclusion regarding pre- and post-test measurements at the beginning and end of the course. However, once it was narrowed down to 36 total records, it was clear that the single test studies were not capturing the information sought after for this study, so exclusion criteria were added. That finalized our total records included for this scoping review at 16.

Figure 4.1.1 Selection of Sources



4.2 Characteristics of Sources of Evidence

All articles reviewed, apart from those with no age demographic information provided (n=1) and those limiting information to the year of the student in college and age ranges (n=1), had an average age demographic between 19-23 years of age. Most of the articles included (n=8) had a participant age average of 21 or older, while (n=2) had an average age of 20, and (n=3) had an average of 19 years old. The (n=1) article that did not provide a mean average age did show that 59.4% of participants in the study were Juniors and Seniors. The remaining (n=1) article supplied the mean ages for all three variable groups (treatment, control, and comparison), and the averages ranged from 21-22 years of age.

Among the reviewed articles, (n=13) focused their study on one of five motivational theories, while (n=3) articles chose multiple theories or constructs. The single theories selected included the Self-Determination Theory (n=5), Social Cognitive Theory (n=3), Self-Efficacy Theory (n=3), Theory of Planned Behavior (n=2), and the Trans-Contextual Model (n=1). The remaining articles discussed both Social Cognitive Theory and Self-Efficacy Theory (n=1), the Theory of Planned Behavior and Self-Determination Theory (n=1), and Social Cognitive Theory with group cohesion and self-efficacy construct concentrations (n=1).

All studies in this review examined various determinants of motivation, physical activity, and demographics using a variety of questionnaires, surveys, and tests—the breakdown for which measurement tool was used for which study can be found in Table 4.1. In addition to the (n=4) articles that created their surveys and the (n=1) article that provided open-ended interview questions, thirty-nine (n=39) different surveys and

questionnaires were administered, some of which were used more than once. These methods include Physical Activity Enjoyment Scale (PACES), Exercise e Self-Efficacy Scale, Exercise Goal Setting Scale, Global Physical Activity Questionnaire (GPAQ), Behavioral Regulation in Exercise Questionnaire-2 (BREQ-2), revised Self-Control Scale (SCS), Healthy Belief Scale, Exercise Motivation Inventory-2 (EMI-2), Learning Climate Questionnaire (LCQ), Learning and Performance Orientation in Physical Education Classes Questionnaire (LAPOPECQ), Weekly Leisure-Time Exercise Questionnaire, adapted questionnaire for behavioral and cognitive processes of change for physical activity, adapted Decisional Balance scale, adapted Self-Efficacy Scale, Perceived Motivation Climate in Sport Questionnaire-2 (PMCSQ-2), Cooperative Learning Subscale of PMCSQ-2, autonomy scale, Perceived Competence Subscale of Intrinsic Motivation Inventory (IMI), 5-item Acceptance Subscale of the Need for Relatedness Scale, Perceived Locus of Causality Scale, adapted Future Participation Intention Scale, McAuley 8-item Self-Efficacy Scale, Group Environment Questionnaire, Intrinsic Motivation Inventory, TestWell Wellness Inventory, Physical Self-Efficacy Scale, Paffenbarger Physical Activity Questionnaire, Health-Related Fitness Knowledge survey, Godin-Shepard Leisure-Time Physical Activity Questionnaire (LTPAC), Perceived Autonomy Support Scale for Exercise Settings (PASSES), Situational Determinants of Leisure-Time Physical Activity Questionnaire, Basic Psychological Needs Satisfaction in Exercise Scale (BPNES), International Physical Activity Questionnaire – Short Form, Physical Activity Stages of Change Questionnaire, Motives for Physical Activity Measure (MPAM-R), Theory of Planned Behavior Activity Scale, Social Support for Exercise Scale, Social Cognitive Theory Knowledge Test, and Fidelity Checklist.

4.2.1 Studies Examining Self-Determination Theory

Five (n=5) studies examined the theoretical framework of Self-Determination Theory in a college physical activity course. Of the five studies, three were done in the United States, one was done in Seoul, South Korea, and the last was completed in Hong Kong. Of the three completed in the U.S., one study (n=383) had predominantly Hispanic participants, one study (n=217) was mostly female participants (n=173), and the third study had the smallest sample (n=81). Elective courses comprised 3/5 of the studies, while one was required and the other was one of two options for a required credit. Upperclassmen (Junior status or higher) made up most of the sample (59.4% and 53%) for two of the studies, while Freshmen and Sophomores made up the majority of the sample for two others (81.5% and 72.8%). The fifth study did not report the grade level demographics for the study. All five studies examined different areas of influence on motivation, including autonomy and self-control, the ability of SDT to increase physical activity motivation, participation, and adherence, examining climate, perceived autonomy, and increased intrinsic motivation towards physical activity, investigating relationships among social environments, basic psychological needs, and motivational regulations in physical education classes, and the impact of choice on exercise motivation.

4.2.2 Studies Examining Social Cognitive Theory

Three (n=3) studies used the Social Cognitive Theory framework. Two studies had only one sample group with (n=135) and (n=125) students in each study. The third study had three groups consisting of the control group (n=178), the in-person group

(n=127), and the treatment group (n=228). That study also provided a mean age for all three groups, which was 22.1, 21.7, and 21.3, respectively. No other demographic information was given on the sample. The other two surveys provided information regarding the participants, however. According to the studies, one article mainly had Sophomore participants at 49.3%, and the other study had mostly first years at 69%. The studies examined Health-Related Fitness Knowledge, physical activity practices, motivations, and self-efficacy, comparing physical activity, health-related fitness knowledge, and exercise medicine (learning, cognitive, behavioral) and looking at SCT variables like self-regulation, social support, perceived confidence to overcome barriers in class and increase the level of physical activity.

4.2.3 Studies Examining Self-Efficacy Theory

Three (n=3) studies used the Self-Efficacy Theory framework. Of the studies, (n=1) was a required course, (n=1) was a self-selected requirement from several physical activity courses, and (n=1) was an elective course. All three studies varied in size, with the most extensive study having 1,473 participants, another study having 112, and the smallest having 71. Only two studies gave minimal demographic information, with one stating that 60% of their participants were women and the other claiming that the age range was 18-34 with a mean age of 21.58. The third study provided no demographic information on the participants. The three studies examined physical activity behaviors and attitudes, the effectiveness of the lifetime wellness course on improving global self-efficacy, physical self-efficacy, and wellness behaviors. They examined self-efficacy, outcome expectancy, behavior intention, and its relation to actual behaviors.

4.2.4 Study Examining Trans-Contextual Model

The single study that examined the Trans-Contextual Model looked at the model's effects on perceived autonomy support, autonomous motivation, determinants of long-term physical activity behavior, essential psychological needs fulfillment, and overall long-term physical activity behavior. The 12-week course was an elective course that practiced different types of physical activity and discussed health-related components of physical activity. The study comprised 70 Turkish students, (n=35) of whom were in the experimental group and (n=35) in the control group, who were not enrolled in the physical activity course. No demographic grade level data was shared, but the mean average age was 23.3.

4.2.5 Study Examining Transtheoretical Model of Behavior Change

The single study that examined the Transtheoretical Model of Behavior Change examined weekly leisure time exercise behavior in relation to behavior and cognitive processes of change, decisional balance, and self-efficacy. The elective course was offered both in person and online. There were (n=152) students that agreed to participate in the study, with (n=67) in person, (n=15) online, and (n=69) students for the control group not enrolled in the physical activity course. Most of the sample population was female (60.3%) and made up of mostly Freshmen and Sophomores (80.1%).

4.2.6 Studies Examining Multiple Theories and Constructs

Three studies combined multiple theories or constructs. The first study looked at Social Cognitive Theory and Self-Efficacy theory, specifically physical activity and enjoyment. There were (n=499) participants in the treatment group and (n=180) in the

control group from two universities, mostly Juniors and Seniors. Another study also looked at Social Cognitive Theory. However, it also closely examined group cohesion and self-efficacy constructs, especially in relation to perceived interest and participation in physical education classes. The study had (n=143) female participants, with a mean average age of 21.2 years old. The third and final study of the review investigated the Theory of Planned Behavior and Self-Determination Theory and how motivational constructs and physical activity affected health behaviors. There were (n=58) participants, primarily first and second years, with a mean average age of 18.72.

4.3 Synthesis of Results

Table 4.3.1 Methodological Data Extraction

Author(s)	Year of Pub	Theoretical Framework	Participant Population	Methods
Agans, J.P., Wilson, O.W.A., & Bopp, M.	2020	Self-Efficacy Theory	1,473 students enrolled in health and wellness course	-Physical Activity Enjoyment Scale (PACES) -Self-efficacy scale (SES) -Exercise goal-setting scale
Ahn, J. & Kim, I.	2022	Self-Determination Theory	188 students taking physical fitness classes at university in Seoul	-Behavioral Regulation in Exercise Questionnaire-2 (BREQ-2) -Revised self-control scale -Healthy Lifestyle Belief Scale
Barton-Weston, H., Chen, W.-J., Fike, D., Griffiths, R., Soukup, G., & Chen, L.-S.	2021	Self-Determination Theory	383 predominantly Hispanic students enrolled in mandatory 15-week PA course	-BREQ-2

Blount, A. N.	2013	Self-Determination Theory	217 undergraduate students enrolled in cardio and fitness courses	-Learning Climate Questionnaire (LCQ) -Learning and Performance Orientations in Physical Education Classes Questionnaires -Survey to inquire about motivation to enroll in course -Open-ended interview questions
Cardinal, B. J. & Spaziani M. D.	2007	Transtheoretical Model of Behavior Change	67 students enrolled in classroom Lifetime Fitness for Health (LFH); 15 students in web-based LFH; 69 students enrolled in non-LFH control class	-Weekly Leisure-Time Exercise Questionnaire -Adapted questionnaire for behavioral and cognitive process of change for physical activity -Adapted decisional balance questionnaire -Adapted self-efficacy questionnaire
Chu, T. L., Zhang, T., & Cheung, H. Y.	2019	Self-Determination Theory	219 Hong Kong college students enrolled in voluntary PE activity courses	-LCQ -Perceived Motivation Climate in Sport Questionnaire-2 (PMCSQ-2) -Cooperate Learning subscale of the PMCSQ-2 -5-item autonomy scale -Perceived Competence subscale of the IMI -5-item Acceptance subscale of the Need for Relatedness Scale -Perceived Locus of Causality scale -PACES -Adapted future participation intention questionnaire
Gao, Z., Xiang, P., Lee, A. M.,	2008	Self-Efficacy and Outcome Expectancy	112 undergraduate students enrolled in	-McAuley 8-item self-efficacy scale -25-item list of statements/value items to

& Harrison, L. Jr.			a weight training class	<p>assess beliefs about outcomes resulting from class</p> <ul style="list-style-type: none"> -One-item rating scale to specify likelihood of participation in behavior -Workout log and attendance to measure actual behavior
Gu, X., Zhang, T., & Smith, K.	2015	Social Cognitive Theory, Group Cohesion, and Self-Efficacy	143 female students enrolled in an elective aerobics dance class	<ul style="list-style-type: none"> -Group Environment Questionnaire -McAuley 8-item self-efficacy scale -IMI -LTEQ
Hill, G. M., Goldfine, B. D., Porter, K. J., & Yin, Z.	2018	Social Cognitive Theory and Self-Efficacy Theory	499 students enrolled at two universities in either sport-based or physical conditioning-based elective courses; 180 students not enrolled in physical activity classes for comparison	<ul style="list-style-type: none"> -Godin-Shephard Leisure-Time Physical Activity Questionnaire (LTPAQ) -PACES
Lockwood, P. & Wohl, R.	2012	Self-Efficacy	118 students enrolled in the required Lifetime Wellness course	<ul style="list-style-type: none"> -TestWell Wellness Inventory -General Self-Efficacy Scale -Physical Self-Efficacy Scale
Maldari, M. M.	2016	Social Cognitive Theory	135 students enrolled in a Health and Fitness course	<ul style="list-style-type: none"> -Self-reported data -Paffenbarger Physical Activity Questionnaire -Modified version of Exercise Self-Efficacy Scale -Health-related fitness knowledge (HRFK)
Maldari, M. M., Garcia, J. M., & Rice, D. J.	2021	Self-efficacy	125 students enrolled in spring section of a required	<ul style="list-style-type: none"> -LTPAQ -Modified Exercise Self-Efficacy Scale -HRFK -EMI-2

			Conceptually-based PE course	-Self-reported course outcomes
Müftüleri, M. & İnce, M. L.	2015	Trans-Contextual Model	70 Turkish university students enrolled in elective physical activity course	-Perceived Autonomy Support Scale for Exercise Settings -Perceived Locus of Causality -BREQ-2 -Situational determinants of leisure-time physical activity questionnaire -Basic Psychological Need Satisfaction in Exercise Scale (BPNES) -International Physical Activity Questionnaire-Short Form -Physical Activity Stages of Change Questionnaire
Quartiroli, A. & Maeda, H.	2016	Self-Determination Theory and Theory of Planned Behavior	58 students enrolled in a health-related fitness course	-BPNES -BREQ-2 -MPAM-R -Theory of Planned Behavior Activity Scale
Suminski, R. R. & Petosa, R.	2006	Social Cognitive Theory	178 undergraduates registered in non-activity/fitness-related general health courses for control group; 118 undergraduates registered for in-person “Fitness and Exercise” course for comparison group; 127 undergraduates registered for web-based “Fitness and Exercise” course for treatment group	-43-item, 5-point Likert-type scale measuring self-regulation -Social Support for Exercise Scale -Exercise Self-Efficacy scale -Social Cognitive Theory Knowledge test

Tracy, J. F.	2015	Self-Determination Theory	81 college students enrolled in Fitness for Life	-BREQ-2 -LTPAQ -Open-ended questions regarding perceptions of/experience in choice/non-choice (in classes) -Fidelity Checklist
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Table 4.3.2 Key Finding Data Extraction

Author(s)	Year of Pub	Key Findings
Agans, J.P., Wilson, O.W.A., & Bopp, M.	2020	<ul style="list-style-type: none"> - Lifetime and fitness courses were associated with the highest levels of physical activity, confidence, and enjoyment of physical activity. - Physical activity and positive attitudes related to physical activity were highest in lifetime and fitness courses and lowest in general health and wellness courses. - On average, students enrolled in classes that matched their current level of physical activity, which could explain the lack of changes in exercise self-efficacy or enjoyment of physical activity. - There was no significant increase in physical activity behavior or attitudes as a result of taking the required course. Despite this, it reinforced existing behaviors and met the needs of students.
Ahn, J. & Kim, I.	2022	<ul style="list-style-type: none"> - There was a significant positive correlation between participants' autonomy and self-control and their healthy lifestyle posttest. Thus, students who demonstrate self-control and exercise can develop a healthy lifestyle through exercise. - There was a statistically significant increase in the healthy lifestyle score between pre-and post-tests. - The ability to participate in exercise autonomously and to exercise self-control could contribute to the change in lifestyle.
Barton-Weston, H., Chen, W.-J., Fike, D., Griffiths, R., Soukup, G., & Chen, L.-S.	2021	<ul style="list-style-type: none"> - Intrinsic motivation and identified regulation increased significantly. - Physical activity was perceived as more enjoyable, necessary, and conducive to personal goals. As a result, behavioral adherence was positive over the long term - In addition to intrinsic motivation, introjected regulation increased (more related to short-term behavior changes). Some motivations for exercising appear less autonomous

		<p>(avoiding displeasure with the instructor, guilt, pressure to pass, peer pressure, etc.)</p> <ul style="list-style-type: none"> - There is a significant increase in amotivation correlated with participation in vigorous physical activity. Those who were less active may not have enjoyed the vigorous activity provided by the class. Further, the mandatory nature of the course may cause them to feel forced to participate, thereby reducing their autonomy.
Blount, A. N.	2013	<ul style="list-style-type: none"> - Students reported they were motivated to participate in PA due to the course. - The biggest obstacle to motivation was schedule/time. - Students discuss physical activity's benefits and desire to continue doing so outside of class.
Cardinal, B. J. & Spaziani M. D.	2007	<ul style="list-style-type: none"> - Classroom, web-based, and control group participants increased their weekly leisure-time exercise activity. - In terms of increased exercise behavior and cognitive change processes, the classroom group experienced the greatest improvements (absolute and relative). - In terms of self-efficacy, decisional balance, and behavioral processes, the web-based group demonstrated the greatest absolute and relative improvements.
Chu, T. L., Zhang, T., & Cheung, H. Y.	2019	<ul style="list-style-type: none"> - It has been found that optional physical education social environments are more strongly associated with self-determined motivation than mandatory physical education. - It was reported that students who perceived physical education social environments as involving self-reference, cooperative learning, and higher autonomy support expressed self-determination and enjoyed physical education more. - There is a positive correlation between cooperative learning and internal and external regulations, intrinsic motivation, and identified regulation. In order to gain acceptance and self-worth, students may demonstrate their ability to achieve this goal. Correlation levels remain low. - There was no association between enjoyment and intention. However, timing (close to finals) may have impacted self-determined students.
Gao, Z., Xiang, P., Lee, A. M., & Harrison, L. Jr.	2008	<ul style="list-style-type: none"> - A positive relationship was found between self-efficacy, outcome expectancy, students' perceived intention, and their actual behavior over time. Despite previous studies indicating the opposite, it is possible that students who took this course not only wanted the credit hours, but also respected the outcomes of the course. - At the program's outset, outcome expectancy appeared more important than self-efficacy in predicting behavioral intention and real behavior among novice students. Supports

		<p>the SET hypothesis that outcome expectancy is more prominent in initiating new behaviors than self-efficacy.</p> <ul style="list-style-type: none"> - Behavioral intention was not significantly influenced by self-efficacy. This might be due to novice students having difficulty relating their self-efficacy to their behavioral intentions at the beginning of the course. - Toward the end of the course, when students had mastered basic skills and gained a greater understanding of the subject, self-efficacy became an increasingly significant predictor of behavioral intention and actual behavior. In contrast, outcome expectancy had little effect on either outcome.
Gu, X., Zhang, T., & Smith, K.	2015	<ul style="list-style-type: none"> - A significant positive relationship between the group variables (ATG-T, ATG-S) and exercise self-efficacy was observed. A positive relationship was also found between perceived interest and all areas of group cohesion and exercise self-efficacy. Lastly, physical activity appeared to be related to the students' perceptions of the ATG-T and their exercise self-efficacy. - Individual Attraction to Group Tasks (ATG-T) can lead students to feel competent in a particular activity, which results in them spending more time doing physical activities. - Female college students are more likely to be engaged in learning if the classroom environment is task-oriented, such as emphasizing the group's goals and group productivity as attractive elements to everyone. - Self-efficacy and interest in social interaction within the group were associated with higher interest levels in the course among students with higher self-efficacy. - Group cohesiveness appears essential to fostering competence beliefs and providing a distinctive resource to keep students interested in and active in PA programs.
Hill, G. M., Goldfine, B. D., Porter, K. J., & Yin, Z.	2018	<ul style="list-style-type: none"> - Lack of change in scores for PACES (Physical Activity Enjoyment Scale) (on average) in the experiment group, likely due to the short time frame of the study. - Scores for the lowest 1/3 of the sample changed significantly, suggesting this course may have the most significant impact on students who report that they do not enjoy physical activity initially.
Lockwood, P. & Wohl, R.	2012	<ul style="list-style-type: none"> - Physical self-efficacy can be improved through a lifetime wellness course, particularly physical activity, and wellness behaviors can be changed. - Students' physical activity levels have significantly increased.

		<ul style="list-style-type: none"> - Several positive changes have been observed in perception, perceived physical self-presentation, and physical ability. - Although physical self-efficacy showed significant improvements, global self-efficacy (or confidence to complete a particular task, such as changing behavior patterns) may require more time and effort.
Maldari, M. M.	2016	<ul style="list-style-type: none"> - Participants in this study spent approximately 6.2 to 7.7 hours per day participating in sitting activities (reading, studying, deskwork, streaming music or movies, etc.). Based on the current study's findings, participants spent approximately 8.0 to 9.0 hours sleeping or relaxing each day. - It was found that there was no significant difference between the pre-and post-class self-efficacy measures in this study. - During the final week of classes, the cost-course surveys for this study were administered. This is when many students feel the pressure of upcoming final projects and exams. - This variable did not show significant changes as assessed by the Exercise Self-Efficacy Scale in this study. Still, the interviews reinforced the conclusion that participation in the program increased participants' self-efficacy when exercising (physical self-efficacy). - At the beginning of the course, 56% of the sample circled health as their primary motivator, and at the end, 64% circled it as their primary motivator. - Participants reported that social interactions with family and friends motivated them to exercise. - An increase in self-confidence in some students in using the wellness center looked to challenge the results of the Exercise Self-Efficacy Scale (ESES), which indicated no significant change in self-efficacy for exercise between the start and finish of the class. The inconsistency may be because the ESES wording focused on confidence in overcoming all barriers to exercising rather than looking directly at a student's confidence in using a gym.
Maldari, M. M., Garcia, J. M., & Rice, D. J.	2021	<ul style="list-style-type: none"> - Significant increases were observed in moderate to vigorous physical activity (MVPA), self-efficacy (SE), and health-related fitness knowledge (HRFK). - Although there was no significant change in mean SE from baseline to post-course, there was an association between SE increases and MVPA levels.
Müftüler, M. & İnce, M. L.	2015	<ul style="list-style-type: none"> - Generally, the results indicate that participants who participated in a 12-week physical activity course based on the Trans-Contextual Model scored higher than participants in the Control group. Among these factors are perceptions

		<p>of autonomy support from instructors and peers, intrinsic types of autonomous motivation, positive intentions, perceived behavioral control over leisure-time physical activity, psychological need satisfaction, and greater engagement in leisure-time physical activity.</p> <ul style="list-style-type: none"> - The results of the Trans-Contextual Model-based physical activity course demonstrated an improvement in the participants' perceptions of autonomy support from both the teacher and their peers. As a result, autonomy-supportive strategies can contribute to participants' perceptions of autonomy support from others in physical activity classes in a collegiate setting, which influences their participation in physical activity outside of class. - According to the present study, participants reported lower autonomy motivation in the PA course setting after undergoing the Trans-Contextual Model-based physical activity class. - In the present study, the intervention improved intrinsic forms of autonomous motivation for all students, thus supporting and adding to existing literature. - There was a significant difference between the experimental and control groups regarding intention and perception of behavioral control after the intervention. Accordingly, those who participated in the 12-week course had a greater intention to engage in physical activity during leisure time and, as a result, showed greater behavioral control over their physical activity during leisure time. - Like previous studies, the present study's findings indicate that the intervention significantly affected the situational determinants of leisure-time physical activity. - As a result of these findings concluded that the Trans-Contextual Model-based physical activity course met the autonomy and relatedness requirements for engaging in leisure-time physical activity effectively. - According to the findings, after the intervention, the Experimental group participated in more physical activity than the Control group. Additionally, participants in the Experimental group showed a significantly higher intention to engage in leisure time physical activity as evidenced by more behavioral changes in action and maintenance phases of physical activity.
<p>Quartiroli, A. & Maeda, H.</p>	<p>2016</p>	<ul style="list-style-type: none"> - No statistically significant change in the level of leisure-time physical activity participation due to participation in this course; it could result from reportedly high levels of participation in physical activity before the course).

		<ul style="list-style-type: none"> - Impact of extrinsic motivational factors (namely appearance and fitness) decreased over time, though there was no increase in intrinsic factors. - A possible shift in importance from extrinsic to intrinsic, plus high activity levels, can lead to prolonged engagement in physical activity. - There was a significant statistical decrease in the level of Theory of Planned Behavior intention to participate in physical activity behaviors, attitude, perceived controls, and social norms overall, however. This could be because the pretest was during the first week of school after the summer break. In addition, the posttest was given right before finals week when student workloads were at their all-time highest, shifting the priority for physical activity participation.
Suminski, R. R. & Petosa, R.	2006	<ul style="list-style-type: none"> - In terms of maintaining physical activity, students reported receiving valuable instruction. - The Web-based program significantly increased students' knowledge of SCT strategies and their likelihood of using self-regulation strategies. In addition, positive results of this type may promote long-term participation in physical activity among college students. - There has been a significant increase in knowledge about SCT-based approaches for being active following participation in the Web program, and higher total knowledge test scores are positively associated with the use of self-regulation strategies - There was a greater degree of self-regulation in students exposed to the program than in students who were not exposed to it. - The Web program did not affect any of the other variables examined.
Tracy, J. F.	2015	<ul style="list-style-type: none"> - Both groups showed significant statistical increases in intrinsic regulation over time. - Identified regulation had increased, possibly due to the establishment of personal goals. - There was a controlling style of instruction in the group of non-choice physical activity participants, which could account for the increased introduction of regulation with little autonomy in this group. - There is no difference in amotivation over time or between groups.

CHAPTER 5. DISCUSSION

Understanding how theoretical frameworks can impact physical education and activity classes in colleges and universities across the globe is vital to current and future educators. In addition, designing classes and curricula that encourage students to develop lifelong physical activity habits requires university administrators and physical education instructors to recognize college students' motivational development (Chu, Zhang, & Cheung, 2019). By collecting and synthesizing this data, the findings of this project add clarity to existing literature and attention to potential steps moving forward.

5.1 Self-Determination Theory

All five studies that included SDT revealed positive correlations between autonomy, self-control, and healthy lifestyles on a post-test at the end of a class. Barton-Weston et al. (2021) showed that the SDT framework made physical activity more enjoyable, meaningful, and conducive to the student's goals, creating more positive behavioral adherence over the long term. Intrinsic motivation and identified regulation increased throughout the class in three of the included studies (Barton-Weston et al., 2021; Chu et al., 2019; Tracy, 2015). Higher self-determination and enjoyment were present in students who reported higher self-reference, cooperative learning, and higher autonomy support, helping to satisfy the three basic psychological needs (Chu et al., 2019). Blount (2013) also found that students were motivated to participate in physical activity in and out of the classroom. There was an increase in their intentions to participate in physical activity and their overall knowledge of the benefits of physical activity.

In addition to these contributions, there were a few other findings of note for the SDT studies. Chu et al. (2019) found no associations between enjoyment of physical activity and further intention to exercise. This contradicts part of Barton-Weston et al. (2021) results, which saw a relationship between enjoyment and adherence. Barton-Weston et al. (2021) also saw a significant increase in amotivation (or lack of interest in physical activity) and the other four types of motivation from pre-test to post-test. Tracy (2015) saw something different in her study, where there was no difference between pre- and post-test with amotivation. Both results could be explained by the timing of the final test, as it was during the end of the semester when students were concentrating on finals and priorities were likely not on physical activity. In their study, Tracy (2015) noted little autonomy and increased regulation in the non-choice physical activity group and believed the controlled teaching style could explain this.

SDT is a theory that examines human behavior and needs at a psychological level. As psychological variables, autonomy and self-control can significantly impact the development of healthy living habits (Ahn & Kim, 2022). It focuses on what empowers people's behavior, drives them into action, and regulates their behavior in numerous areas of their lives (Deci & Ryan, 2015). For example, the overarching goal of a physical activity class would be to create healthy habits for a lifetime lifestyle change. In SDT, satisfying three basic psychological needs (competence, autonomy, and relatedness) would help achieve that. The studies on the SDT framework showed increased intrinsic motivation and identified regulation, increasing their autonomous motivation. A person who is autonomously motivated acts with complete willingness and volition, fully supporting the actions they are taking because they find them to be either exciting and

enjoyable or consistent with their deeply held and integrated beliefs (Deci & Ryan, 2015).

This result is more significant in the Barton-Weston et al. (2021) study, which examined a required physical activity course. Those students had to select a physical activity class, regardless of their past exercise behaviors or personal attitudes. Over the semester, they became more motivated to exercise because they found it more enjoyable and vital than they initially thought (Barton-Weston et al., 2021). This suggests a higher likelihood of intention to participate in future physical activity. Students in elective courses could still benefit from SDT. However, as other studies have stated, they are more likely to choose classes that reflect their current level of physical activity (Quartiroli & Maeda, 2016) and, therefore, less likely to see significant changes. A course based on SDT can continue reinforcing their autonomous motivation and meeting their psychological needs, which would only strengthen their future intentions. Educators who implement the SDT framework in their classes should focus on making the classes enjoyable, creating a socially supportive environment, and providing need support for students.

5.2 Social Cognitive Theory

Unlike SDT, the three studies that followed the SCT framework did not yield many significant results but did have many things to note for possible future interest and study. In Maldari (2016), open-ended interview questions demonstrated an increase in students' physical self-efficacy as opposed to their global self-efficacy. They also increased their intrinsic motivation. For example, the post-test results showed health as the prime

motivator to work out for 56% of the population, while the post-test showed an increase to 64%. Maldari (2016) also stated that interactions with family and friends motivated them to participate in physical activity. The second SCT study reported a significant increase in moderate to vigorous physical activity, self-efficacy, and health-related fitness knowledge and found an association between increased self-efficacy and increases in physical activity (Maldari et al., 2021). The strongest statements came from Suminski and Petosa (2006), who stated that the SCT-based web course results showed a significant increase in knowledge about SCT strategies and the likelihood of using self-regulating strategies. These positive outcomes may potentially promote long-term participation in physical activity and good health in college students (Suminski & Petosa, 2006).

Maldari (2016) found no significant differences between the pre-test and the post-test self-efficacy scale measures. However, the interview itself showed contradictory information to this information. The ESES that measures confidence looks at the confidence to overcome barriers to exercising instead of the confidence in themselves to do things like use the gym, do a proper squat, etc. Maldari believes this was the reason for the contradictory test results but would need to investigate it more. In 2021, Maldari et al. saw no significant change in mean self-efficacy. Finally, Suminski and Petosa (2006) saw no changes in SCT variables due to the web course. They also concluded that the course did not significantly impact self-efficacy or social support for physical activity.

Self-efficacy was a central aspect of the findings of these studies. While SCT is primarily about observational learning, classes based on its framework can also boost or

lower the observer's self-efficacy to enact observed behaviors and produce desired results. In SCT teachings, seeing others succeed increases individuals' confidence that they can accomplish the same, and motivation is derived from the success of others who are like themselves (Bandura, 2001). The Maldari (2016) study showed that interactions with friends and family highly influenced their behavior. From an SCT point of view, during this transitional time in a young adult's life, as they create their self-identities, they look at the behaviors being modeled by those closest to them and the results of those behaviors to shape their actions, thoughts, and beliefs. This reassurance from their social support and the knowledge the courses provide can instill confidence and belief that the student can achieve a goal, including participating in physical activity. This self-efficacy leads to intrinsic motivation, which can lead to long-term healthy lifestyles. Educators with a mostly younger demographic may benefit more from SCT-based courses as they develop their sense of self.

5.3 Self-Efficacy Theory

The studies that used the SET framework saw the most considerable difference in attitudes toward physical activity. The physical activity classes in one study were associated with high levels of physical activity, confidence, attitudes towards physical activity, and enjoyment of physical activity amongst its students compared to a non-active health course (Agans et al., 2020). While the physical activity itself did not increase amongst the physical activity classes, they reinforced existing behaviors and were able to meet the activity and psychological needs of the students. Gao et al. (2008) found a positive relationship between self-efficacy, behavioral intentions, outcome expectancy, and actual behavior over time. At the beginning of the course, when students

were unfamiliar with the skills needed, outcome expectancy was more influential than self-efficacy for predicting behavioral intentions and the students' actual behavior.

In contrast, self-efficacy played more of a role once they mastered the skills and knowledge midway through the class (Gao et al., 2008). In the final SET study, physical self-efficacy improved from the start to the finish of the class (Lockwood & Wohl, 2012). Not only did physical activity significantly increase, but perception, perceived physical self-presentation, and overall physical ability all saw positive changes. Results found that Lifetime Wellness programs improve physical self-efficacy and promote wellness behaviors, particularly in physical wellness (Lockwood & Wohl, 2012).

Agans et al. (2020) discovered no significant increase in physical activity levels. However, they found that students were enrolled in courses that matched their current level of physical activity, both active and non-active. This could explain the lack of increase in physical activity and ESE and enjoyment in physical activity, as they already like what they are doing. They also saw no significant increase in physical activity behavior or attitudes towards physical activity and believe it could be the result of it being a required course instead of an elective (Agans et al., 2020). The second study observed that self-efficacy did not significantly affect behavioral intention at the beginning of the class. Then outcome expectancy became irrelevant midway through when self-efficacy took over (Gao et al., 2008). The unique issue is at what stage or point an instructor switches the form of teaching to support that change.

In a physical education setting, the objective of a SET framework-based class would be to strengthen a student's expectations of personal efficacy. Studies that saw a significant increase in physical self-efficacy could teach students that certain behaviors

created specific outcomes and that they could perform them themselves (Bandura, 1977). A person's conviction in their ability to reach the same outcome within a given situation is likely to be a significant factor in whether they attempt the behavior again. In addition to influencing the choice of activities and settings, perceived self-efficacy can influence activity adherence after initiation through expectations of eventual success. Efficacy expectations determine how much effort is spent and how much time it will take people to persist despite obstacles and adverse experiences. Individuals with a greater sense of self-efficacy will be more active in their efforts to continue participating in physical activity after finishing the class.

The studies in this review support the overall idea of improving self-efficacy through mastery. However, educators interested in using a SET framework in their physical activity classes would succeed more if they focused on all four areas, including performance accomplishments (mastery), vicarious experience, verbal persuasion, and physiological states (Bandura, 1977). While performance accomplishments are highly influential, failures can cause lower mastery expectations and negatively impact overall self-efficacy. Educators should also emphasize enjoyment through model behavior (like SCT), provide positive and motivational feedback, and create a non-competitive environment for students. This could continue to improve overall attitudes towards physical activity and see long-term behavior changes due to increased exercise self-efficacy.

5.4 Trans-Contextual Model

A single study examined the use of TCM in a physical activity course in Turkey. The study compared a treatment group that took the course with a control group of non-participating students. Müftüler and İnce (2015) found higher perceptions of autonomy support and more leisure-time physical activity reported in the treatment group. The students who took the course improved their perceptions of autonomy support through TCM strategies that could be transferred to other courses and instructors outside the physical activity class. Both the men and the women also improved their intrinsic autonomic motivation. Müftüler and İnce (2015) state that the treatment group had greater intention to engage in physical activity and that the students demonstrated greater behavioral control over physical activity in their leisure time. The study's results significantly affected situational determinants of leisure-time physical activity. Furthermore, they showed that the course effectively satisfied students' autonomy and relatedness psychological needs in leisure-time physical activity (Müftüler & İnce, 2015). Based on these findings, the Trans-Contextual Model-based intervention effectively increased leisure-time physical activity among university students (Müftüler & İnce, 2015).

While the study's evidence overwhelmingly supported their hypothesis, autonomous motivation was one area that did not meet expectations. According to the TCM, autonomous motivation should transfer from a physical education setting to a leisure-time physical activity setting, but the results show a decrease in autonomous motivation. Because of this, Müftüler & İnce (2015) stated that this intervention was not practical for increasing autonomous motivation for this sample and study.

The TCM combines SDT and TPB, which lends itself to an educational setting. Therefore, it can be a solid framework for educators to utilize in their classrooms when replicated correctly. The TCM aims to investigate how motivation for educational activities in a classroom environment leads to motivation for similar activities and behaviors outside the classroom (Hagger & Chatzisarantis, 2016). While there are many tests of this model's theory, only one study could be found relevant to this project. Based on that study, the course could not fully replicate the TCM as intended (Müftüler & İnce, 2015). However, that should not discourage educators from using this method, as even the included study saw significant evidence supporting the ideas within the model.

Autonomous motivation is the central focus of TCM and should also be the focus for educators. The main idea of the model is that autonomous motivation is predicted by perceived support in the classroom. Researchers have found that teachers can strengthen autonomous motivation and behavioral diligence by offering lessons and feedback that supports self-directed studying and providing students with choices and rationales for their decisions (Hagger & Chatzisarantis, 2016). In addition, educators encouraging autonomous motivation in the classroom predict continued autonomous motivation outside of the classroom to participate in the same activities. This can lead to lifelong physical activity and behavior change.

5.5 Transtheoretical Model of Behavior Change

This study looked at three different groups and how this model can affect the student's behavior. The groups consisted of a control group (regular course, no physical activity), an in-person Lifetime Fitness for Health, and a web-based Lifetime Fitness for Health course. All three courses reported increased physical activity since the start of the

semester, but the in-person course improved more, (Cardinal & Spaziani, 2007). In the classroom group, the exercise behavior and the use of cognitive processes of change improved the greatest in absolute and relative terms. However, those participating in the web-based group experienced the most remarkable improvements in self-efficacy, decisional balance, and behavioral processes. The Lifetime Fitness for Health course was generally effective, regardless of delivery method (Cardinal & Spaziani, 2007). In addition, this study reported no negative or neutral findings of note.

While TTM is considered a behavioral change theory or model, it was included in this review due to the inclusion of motivational change and self-efficacy in the discussion. The TTM has been a successful behavior change method in medical settings, especially concerning smoking, alcohol abuse, weight control, addiction, etc. (Raihan & Cogburn, 2023). The challenge of using this model in an educational setting is likely time-specific. You are limited to a fixed period for a class (typically 8-16 weeks), which can be a challenge to make significant changes in behavior. With TTM, most stages are separated by months to years, which cannot be captured in a class. However, educators can still benefit from teaching the TTM in their classes. For example, in Cardinal and Spaziani (2007), there were still significant changes in self-efficacy and physical activity. Therefore, using the TTM in a physical activity course could contribute to health-related knowledge, increasing self-efficacy and potentially leading to lifelong behavior change.

5.6 Multiple Theories and Constructs

Three articles examine multiple theories, models, or constructs to find what the authors hope will be a successful way for educators to disseminate motivational theory in

a physical education context. Gu, Zhang, and Smith (2015) examined a course comprising all female participants that utilized SCT, group cohesion, and self-efficacy framework. They found positive relationships among group cohesion variables and exercise self-efficacy. Gu et al. stated that a positive relationship was also found between perceived interest and all dimensions of group cohesion and exercise self-efficacy among students (2015). They stated that female college students benefit from a task-oriented environment. This approach can effectively motivate this population to participate in physical activity (Gu et al., 2015). Another study by Hill et al. (2018) analyzed the impact of SCT and SET on a physical activity course. They saw a significant increase in physical activity levels in the treatment group. While they saw little changes in the remaining factors, they did notice that the treatment greatly impacted the students who reported little to no activity before the course. The lowest 1/3 of the students that reported they did not enjoy the physical activity at the start of the class had the most significant improvement in enjoyment at the end of the course (Hill et al., 2018). The last article also saw little significant changes in their sample population (Quartiroli & Maeda, 2016). In a combination of SDT and TPB, the only change that was recognized was that extrinsic motivators decreased over the course, which was considered a significantly important finding. Changing the focus from extrinsic to intrinsic motivation can lead to sustained participation in physical activity (Quartiroli & Maeda, 2016).

As for areas that did not show significant changes or contradict previous research, there were many for these studies. Most notably, Quartiroli and Maeda (2016) found no statistically significant change in the level of physical activity participation as a result of participation in the course, nor did they find an increase in intrinsic motivators, both of

which were primary goals of their research. They believe the issue lies with the fact that the students reported regularly participating in high levels of physical activity, so there would not be a change. That would also answer for the intrinsic motivators, as they already exist, as well as the additional findings that there was a significant decrease in the level of TPB intention to participate, attitudes towards physical activity, social norms, and perceived control (Quartiroli & Maeda, 2016). A noteworthy conclusion that Gu et al. (2015) were able to surmise was that no significant relationship was found between social cohesion and exercise self-efficacy in their study. However, because that takes a more extended period to develop, this was done over a shorter period of several weeks. Lastly, Hill et al. (2018) also determined that enjoyment could take longer than the treatment's short time frame.

Combining theories and constructs centered around the same end goal seems like a natural step for educators wanting to influence many students simultaneously. However, students that come into a class are rarely at the same level of skill, motivated the same way, in the same stage of behavior change, or have the same attitude towards physical activity. With physiological and psychological differences and so many young adults at different points of their transition, it would make sense to utilize different components of theories to find what works best for the population you serve. For example, Quartiroli and Maeda (2016) did not see any significant changes in their study, combining SDT and TPB. They discovered that their student population was already very active, which negates the need for intrinsic motivators, as they are already there. They could have also used the TCM, which combines SDT and TPB elements differently. The

authors could have targeted autonomous motivation in general and utilized the model meant for use in the physical education setting.

Another example would be Hill et al. (2018), which examined SET and SCT, which overall saw increased physical activity. While that alone is promising, the study also drew attention to a population subgroup: students who had previously reported little to no activity before the course. These students significantly changed enjoyment levels towards physical activity, which SET focuses on, and supports the idea that educators should choose theories that work best for the student populations represented in their courses.

CHAPTER 6. CONCLUSIONS AND FUTURE DIRECTIONS

6.1 Limitations

Preliminary searches for studies examining physical education and activity classes in college yielded many results, but there was a considerable variation in purpose and scope. Much of the existing literature is focused on physiological and mental health outcomes. Two conclusions can be drawn from this: either search parameters were not specific enough to target motivational studies in the current population, or there is a saturation of information on specific topics within the field of physical education and a scarcity of others.

Another drawback to this review is the various measurement methods used in each study. While there is a benefit to seeing the various methods and how they were used, the fact that there is not a single method of measurement that can be compared across studies is also somewhat of a limitation. For example, some scales asked questions to predict future behaviors based on intentions and current beliefs. In contrast, others were based on research predictions and self-reports of real-time physical activity behaviors. Ahn and Kim (2022) stated that the results of a scale measuring actual lifestyle changes could be more reliable than those obtained by measuring beliefs and intentions since beliefs and intentions do not necessarily lead to action. However, from mapping the current literature, it is helpful to see how the data was collected and used to obtain results.

While some of the more commonly used theories provided multiple comprehensive studies for this project, others, including the TCM and the TTM, were limited to one study each. More studies that included either model would have been beneficial to the study and provided more data for future researchers and educators to consider. In the case

of TTM, the time limitations of a single semester could be problematic, so different ways to implement it into a physical activity class would need to be examined. More research is needed to conclude their potential contributions to the classroom.

The most significant limitation of this study was shared amongst 10 of the 16 (62.5%) of the articles reviewed. The timing of the studies prevented a genuinely reliable measure of intention, behavior change, and physical activity adherence. In three articles (Chu et al., 2019; Maldari, 2016; Quartiroli & Maeda, 2016), the authors discussed that the post-test results could have been adversely influenced by the added coursework, workload, and stress that happens at the end of the semester for most students. Studies have shown that increased workloads impact the number of physical activities students actively participate in (Bhochhibhoya, 2014; Leenders et al., 2003; Buckworth & Nigg, 2004). Another seven authors in this review mention the need for further studies that include additional follow-ups after the semester has been completed (Agans et al., Ahn & Kim, 2022; Barton-Weston et al., 2021; Cardinal & Spaziani, 2007; Hill et al., 2018; Maldori et al., 2023; Müftüler & İnce, 2015). Measuring actual changes in health behavior is challenging when there is a substantial influence to continue those behaviors, like the course itself. Having participants in the original studies complete another follow-up weeks or months after the initial completion of the semester would allow researchers to see if the behavior change and motivation itself were successful long-term, which is the goal, or just short-term. When you combine the impact that the timing of the post-test could have on the results, along with the lack of an accurate longitudinal measure of success, we cannot answer if the physical activity courses were successful.

6.2 Future Research

The lack of longitudinal studies beyond a single semester for this age group shows a clear gap in the literature. In addition, the concern raised by just a few authors about the timing of the posttests is also a concern about the validity of several studies done with this population. With studies identifying increased work schedules and schoolwork as significant student barriers, it should not surprise researchers that increased stress, priorities, and other reasons could impact actual results. Given the temporary nature of finals week pressures, it also would not seem accurate to assume that those feelings, opinions, and reported activities remained the same once school was over and their schedules returned to some bit of “normalcy.”

Future researchers should consider including this period in their study and taking a follow-up test once finals week has been completed. Not only would this give a more accurate result of long-term behavior changes, but you would also be able to see how a significant event (finals week) impacts behavior change. In addition, this would provide a real-time test of whether the strategies and lessons taught in the course will remain a part of the participants’ lifetime behaviors or if it was just for the life cycle of the class.

6.3 Conclusion

Physical inactivity from childhood through adulthood remains a severe health crisis worldwide. Changes in core requirements in universities nationwide have not helped with this issue either, shifting away from requiring physical activity courses for graduation. For those schools that offer a variety of physical activity and education courses, the methods they use to teach and the objectives of the classes vary greatly, not just between

colleges but even between the types of classes (sport-related vs. fitness-related) or instructors. While the principal goal is to increase physical activity in young adults, how to do that is the most critical question.

The present work searched for existing studies that examined the use of motivational theory in physical activity and education courses to increase physical activity and motivate students to participate in physical activity long-term throughout their lifetimes. Interventions utilized a theoretical framework to implement lessons that, hypothetically, would create lasting behavior change, change in attitude, and change in motivation towards physical fitness. These changes were measured through various methods, both pre-test and post-test, at the start and finish of the course. While a large amount of literature examines motivational theory in physical activity classes, this study found a limited amount of existing literature that involves a theoretical framework for collegiate populations. This thesis gathered and reviewed the studies, identifying and mapping critical findings from each study and the methods used to determine those findings. From those results, this project was able to provide recommendations to educators for classroom application and suggestions for future research.

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