

The Relationship Between Wellness and Physical Activity Integration Coursework and Pre-Service Teachers' Self-Efficacy

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Abstract

The impetus of teacher preparation coursework is to provide pre-service teachers with the skills and experiences necessary to transfer what they learn into practice. Thus, it is imperative to examine the perceived self-efficacy of pre-service teachers' upon completion of coursework. While most pre-service teachers prove confident in their ability to teach core content, their efficacy in teaching content beyond such subjects is nominal at best. As a content area greatly underrepresented within teacher preparation programs, this study examined the perceived self-efficacy of pre-service teachers regarding wellness and physical activity integration. Outcomes were measured through a self-reported survey. Results indicated higher levels of self-efficacy in all categories and statistically significant findings ($p = .0012$) in wellness and physical activity pedagogical content knowledge for students completing at least one wellness and physical activity endorsement course, compared to students who had not completed a course in wellness and physical activity integration.

Key words: Self-efficacy, pre-service teacher, teacher preparation, physical activity integration, wellness integration

Introduction

Self-efficacy has been defined as “people’s beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives” (Bandura, 2010, p. 1). Similar to confidence and perceived ability levels, beliefs about self-efficacy have the capacity to determine people’s emotions, thoughts, behavior, and motivation levels, and can also affect how humans look at accomplishment and their own well-being (Bandura, 2010). A strong sense of self-efficacy is a catalyst to conquering difficult tasks with reassured confidence, as opposed to feeling intimidated or fearful.

Emergence of self-efficacy

According to Bandura (2010), four influential factors can foster self-efficacy. The first of these is mastery experiences, which promotes self-efficacy through a multitude

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of successes. However, if mastery experiences result in failure, self-efficacy can be damaged if one does not have a strong sense of self-confidence or positive support. The second source of self-efficacy is influenced vicariously through social models. This occurs when people see similar individuals succeed through prolonged efforts, and feel as if they can accomplish the same tasks through their own ability. The third way one achieves self-efficacy is through social persuasion, which includes positive verbal confirmation from others that they possess the ability to master an activity. Finally, self-efficacy is influenced physiologically, through somatic and emotional states people experience while judging their own abilities (Bandura, 2010).

Implications of teachers' self-efficacy in the classroom

Educators — pre-service, novice, and veteran — have a particularly significant impact on students through their own levels of self-efficacy, as self-efficacy emanates from teachers who are notably more enthusiastic and willing to implement complex methods and strategies in their classrooms (Hoy & Spero, 2005). Additionally, research has demonstrated that teacher self-efficacy is an indicator of student achievement and success at school (Guo, Piasta, Justice, & Kaderavek, 2010; Muijs & Reynolds, 2015). Teachers who possess strong perceptions of self-efficacy are also more likely to have a highly effective classroom management system and employ teaching methods that promote autonomy in students, while simultaneously reducing the amount of “custodial control” they use (Caprara, Barbaranelli, Steca, & Malone, 2006, p. 2).

Developing pre-service teachers' self-efficacy

It could be argued that the genesis of developing a strong sense of self-efficacy begins in teacher preparation programs, otherwise known as the pre-service years (Clark & Newberry, 2018; Pendergarst, Garvis, & Keogh, 2011). Because self-efficacy has been shown to largely influence teacher effectiveness and the quality of his or her pedagogy, the development of self-efficacy through teacher preparation courses should be a top priority (Moulding, Stewart, & Dunmeyer, 2014). Further, the development of a collective sense of strong efficacy among teachers in their pre-service years is important in the socialization process teachers experience during their novice years in the classroom. Webster, Erwin, and Parks (2013) noted that novice teachers' first years are extremely influential towards their development of pedagogical self-efficacy. Further, Webster et al. (2013) contend that the power of collective self-efficacy beliefs developed in pre-service classrooms will establish the belief that teachers as a group are capable of anything when they work together collaboratively. This includes integrating complex strategies and methods in the classroom.

Alleviating decline of self-efficacy during teacher preparation

Despite the benefits of developing self-efficacy during teacher preparation, it is

possible for a decline of efficacious beliefs related to teaching ability to occur. Pendergast, Garvis, and Keogh (2011) conducted a study in which 175 pre-service teachers in education preparation programs completed a survey at the beginning of their first year that centered on three categories regarding self-efficacy: (1) efficacy for instructional strategies, (2) efficacy for classroom management, and (3) efficacy for student engagement. During the second semester, 76 of the participants completed the survey again. Results indicated that self-efficacy declined slightly between the two surveys. The overall mean for self-efficacy in survey one was 7.40, and the mean for the second survey was 6.89. It was postulated that this decline is most likely a result of “reality shock” (p. 9) that the students felt as they were exposed to more classroom material and mastery experiences, and realized the responsibilities and demands of being a teacher.

Pre-service teachers will inevitably encounter this type of occupational stress as they begin to encounter real-world experiences, leading to a decline in self-efficacy (Vesely, Saklofske, & Leschied, 2013). Thus, it is critical for teacher educators to emphasize and model how pre-service teachers can draw from their personal resource of efficacy in addition to seeking external support which can counteract negative feelings of inadequacy and frustration from such demands in the classroom (Vesely et al., 2013). Teacher educators can also provide ample experiences for pre-service teachers, guiding them toward the point of mastery under their supervision. Bandura (2010) lists this idea of mastery experiences as one of the most influential factors regarding one’s development of efficacious beliefs. One research study revealed that providing teachers with mastery experiences through training in which they could ultimately reach success with a new reading strategy, and providing coaches who offered outside support through constructive feedback and verbal persuasion after real classroom observations, influenced self-efficacy more than just the teachers who only received the training on the new strategy (Tschannen-Moran & McMaster, 2009). Furthermore, this study revealed that providing teachers with opportunities to master skills in real classroom settings is the most effective way to contribute to bolstering self-efficacy beliefs. The realization that the development of self-efficacy through a systematic approach during teacher preparation can have significant consequences on teacher outcomes points to the fact that developing a strong foundation of self-efficacy should not be taken lightly when preparing pre-service teachers for their future careers.

Self-efficacy and its role in the integration of wellness and physical activity

Examining pre-service teachers’ efficacy is critical to understand the trends and outcomes of in-service teachers. However, the current body of evidence has primarily examined pre-service teachers’ pedagogical efficacy in the tested areas of mathematics, English language arts and science (Bostock & Boon, 2012; Flores, 2015; Giles, Byrd, Bendolph, & Boylan, 2016) while minimal research has focused on pre-service

and in-service teachers' self-efficacy in wellness and physical activity integration in the United States. A majority of studies regarding teachers' self-efficacy in wellness and physical activity have been done with physical education teachers and are not specific to integration of wellness of physical activity with academic content in the classroom setting. Despite this deficiency, the benefits of integrating wellness and physical activity in the classroom are innumerable as indicated through research over the past several decades. Such benefits include the preservation of healthy bones, muscles, and joints, strengthening of the cardiovascular system, a decreased risk of developing hypertension, a reduced risk of developing heart disease, and even a decrease in depressive and anxious symptoms, coupled with an increase in self-esteem (Parks, Solomon, & Lee, 2007). Significant decreases in body mass index for young children have also emerged from curriculum-based physical activity interventions (Donnelly et al., 2009). Additionally, research has revealed that increases in-classroom physical activity can lead to significantly higher academic achievement (Centers for Disease Control and Prevention, 2010; Mullender-Wijnsma, Hartman, De Greeff, Bosker, Doolaard, & Visscher, 2015). More specifically, including 20 minutes of curriculum-based physical activity throughout the school day indicated a significantly positive effect on reading fluency and mathematics scores as indicated by curriculum-based measures (Erwin, Beighle, Carson, & Castelli, 2013).

While health risks for children continue to increase, few teachers have taken on the responsibility of creating an environment in the classroom that promotes physical activity and health education (Parks, Solomon, & Lee, 2007). Despite ample literature that provides various examples of how to integrate movement into the elementary classroom (Hills, Dengel, & Lubans, 2015; Orłowski, Lorson, Lyon, & Minoughan, 2013; Riley, Lubans, Morgan, & Young, 2015), the willingness to do so and enthusiasm towards implementing these methods has been documented as very low (Parks et al., 2007). The reasoning for the lack of enthusiasm to integrate physical activity has been correlated with low levels of self-efficacy (Parks et al., 2007). Consequently, integrating physical activity into the classroom is problematic if teachers lack self-efficacy (Welch, 1998).

Extra role behaviour and collective self-efficacy in wellness and physical activity integration

Perhaps another reason for such a hesitancy towards this type of integration in traditional classroom lessons begins with the forethought that physical educators should be the ones to implement academics in their movement or physical education classes (Parks et al., 2007). This also explains the lack of research conducted with classroom teachers on wellness and physical activity integration. A typical viewpoint of integration is that academics should be integrated into physical education and not the other way around. Thus, the success of a role reversal, wherein classroom teachers integrate

wellness and physical activity, rests on the premise that teachers understand and are willing to not isolate physical education from the rest of the classroom curriculum (Parks et al., 2007). To embrace this stance, a theoretical perspective grounded in self-efficacy theory (Bandura, 1997) must be taken to facilitate teacher involvement in the process of wellness and physical activity integration so that they welcome what Somech and Drach-Zahavy (2000) call “extra role behavior” (p. 649).

Extra role behavior, as defined by Somech and Drach-Zahavy (2000), are “those behaviors that go beyond specified role requirements, and are directed toward the individual, the group, or the organization as a unit, in order to promote organizational goals” (p. 650). This extra role behavior that is associated with strong teacher efficacy (Zee & Koomen, 2016) could be argued as one of the most important characteristics in a teacher’s desire and ability to integrate wellness and physical activity in the classroom. For educators, extra role behavior embodies the notion that one is willing to go above and beyond the standard core academic content required in the classroom.

In relation to role behavior, Parks et al. (2007) examined the perceptions of in-service teachers and principals on the integration of physical activity as it relates to collective and individual efficacy beliefs. Participants included 314 in-service elementary teachers, and 38 elementary principals from 44 public, private and charter elementary schools. A survey was administered to determine how willing and prepared they were to integrate movement into the classroom in regards to self and collective efficacy. More than three-quarters of the participants (77.6% of teachers and 78.9% of principals) recognized the importance of physical activity for students, and more than half of the participants indicated a willingness to integrate it three to five days a week. Although a positive response toward physical activity integration emerged, generally both teachers and principals indicated that they did not feel sufficiently prepared for integration and only half indicated they would take on the “extra role.” In regard to the influence of efficacy on integration, participants indicated that the strongest influence on their individual efficacy levels towards integration was mastery experiences and preparedness. While researchers hypothesized that participants who were personally physically active themselves would be the most willing and efficacious towards integration, results indicated that the teachers who were most efficacious and willing to integrate movement in their classrooms were those who had been exposed to mastery experiences in teaching with movement at their institutional level. This indicates the importance of teacher preparation programs in developing pre-service teachers with efficacious beliefs in content beyond core academics prior to entry into the profession.

Aim of the study

As noted above, a teacher’s self-efficacy developed during pre-service years may be directly correlated with their prevalence to integrate wellness and physical activity into the classroom. However, with minimal coursework related to health, physi-

cal activity, and/or physical education offered to elementary pre-service teachers in the United States, both personal and collective self-efficacy of wellness and physical activity pedagogy remains underdeveloped. Therefore, pre-service teachers are left unequipped to connect wellness and physical activity in their future classrooms. To address this issue, a teacher preparation program at a university in the Southern United States developed and was approved through state licensure to offer a one-of-a-kind teaching endorsement for elementary and special education majors in wellness and physical activity integration in 2015. The endorsement consists of four courses with prefixes of EDWP that include content in wellness and physical activity, methodology for integration into academic content, and practical field experiences of wellness and physical activity integration. Currently, this University is the only institution to offer this endorsement in the United States and has graduated three cohorts with the wellness and physical activity endorsement as of May 2019. Accordingly, the researchers are in a unique position to gauge the self-efficacy of pre-service teachers who have been exposed to wellness and physical activity integration coursework compared to those who have not taken such coursework.

Grounded in social-cognitive theory (Bandura, 1986), the underpinnings of this study arise from an extension of self-efficacy theory known as teacher efficacy (Bandura, 1977). Teacher efficacy refers to an individual's confidence in their ability to cultivate positive student engagement and learning. Emerging from Bandura's (2010) self-efficacy factors regarding mastery experiences, as pre-service teachers complete undergraduate-level coursework in wellness and physical activity, they begin to cultivate their ability to organize and execute certain tasks, in this case — wellness and physical activity integration. Applying the two-tiered framework of efficacy expectation and outcome expectancy (Bandura, 1997), this study sought to examine the difference between pre-service teachers who had completed at least one wellness and physical activity course and pre-service teachers who had not been exposed to any of the coursework to determine if any differences existed in the convictions they held about their perceived abilities to integrate wellness and physical activity into the classroom. Thus, the following research question guided the present study:

How do pre-service teachers who have taken a wellness and physical activity course perceive their self-efficacy of content knowledge, pedagogical knowledge, and pedagogical content knowledge in wellness and physical activity integration, compared to students who have not taken a wellness and physical activity integration course?

Methodology

The present study took place from January 2019-May 2019 and employed a cross-sectional survey research design to address the research question through responses to a set of questions (Check & Schutt, 2012). Prior to implementation of the study, approval from the University's Institutional Review Board was obtained as well as

written approval from each course instructor where the survey was administered. Upon approval, the lead researchers recruited student participants ($n = 148$) consisting of junior elementary and special education majors during Spring 2019 in a required education foundations course. Secondary education majors were not included, as the endorsement is for K-6 elementary and special education majors. After consent from participants (both EDWP and non-EDWP) was obtained, the survey was administered to procure data for statistical analysis.

Data collection

An adaptation of the TPACK survey was utilized to measure pre-service teachers' perceptions of their self-efficacy related to wellness and physical activity integration (Schmidt et al., 2009). A derivative of the pedagogical content knowledge (PCK) survey (Shulman, 1986), TPACK has been utilized in various education-related studies to gauge pre-service and in-service teachers' self-efficacy of content and pedagogy. While the original survey contained seven categories with one of the foci related to technology, the researchers adapted the survey to include three categories: content knowledge (CK), pedagogical knowledge (PK), and pedagogical content knowledge (PCK). These three categories were chosen due to their interconnectedness with Bandura's self-efficacy theory related to mastery experiences. The notion was that pre-service teachers in the study were exposed to wellness and physical activity endorsement courses and therefore had multiple opportunities in class and through applicable assignments to obtain mastery experiences in both content and pedagogy; thus, plausibly leading to higher levels of self-efficacy in the three sub-categories, as compared to pre-service teacher who had not taken the courses.

Primary development of the original survey was conducted with a pilot study of 124 pre-service teachers. Results indicated consistent reliability of Chronbach's alpha from .75 to .92 (Schmidt et al., 2009). The sample within the original study was similar to the present study in that a majority of the participants were elementary education majors, with the only difference being that the original study also included early childhood students, while the present study included special education majors. The scopes of the original and present study were also similar in that the survey was utilized for pre-service teachers in the United States and aimed to garner data from students regarding their self-efficacy related to a specific content area in an undergraduate course. While the data only rendered self-efficacy at one point in time, both studies aim to eventually assess self-efficacy outcomes longitudinally.

During the present study, this survey was administered at the end of an academic semester at a university in the Southern United States to 148 pre-service teachers. Thus, it is considered cross-sectional, as data from the survey were only collected at one point in time (Creswell, 2005). Using this type of design was appropriate because it assisted the researchers in gathering information about the behaviors and beliefs of

people related to a specific topic — wellness and physical activity integration. Eighty of the participants had completed a wellness and physical activity integration course or were in their last month of completing the course at the time the survey was administered (EDWP group), while sixty-eight participants had not taken a wellness and physical activity course (non-EDWP group). The survey solicited responses in relation to questions within the following categories: (1) pedagogical knowledge (PK; 3 items), (2) content knowledge (CK; 2 items), and (3) pedagogical content knowledge (PCK; 3 items). Respondents were asked to assess their knowledge using a 5-point Likert-type scale (1 = Strongly Disagree; 5 = Strongly Agree).

Data analysis

Data were first analyzed by deriving a mean percentage for all three categories, for both the EDWP and the non-EDWP group. Patterns that were identified within the stacked bar graphs enabled a simplistic interpretation of the data and provided an overall view of scores for each of the three categories within the survey (See Figure 1). Weighted means for the eight individual survey items were then calculated by finding the midpoint number of respondents and by identifying where the midpoint fell within the cumulative number of responses and subtracting the midpoint of respondents by the cumulative number of respondents by that number. The total was then divided by the total number of respondents and that outcome was added to where the midpoint of the scale met the midpoint of the cumulative responses. These statistical outcomes for each category were placed into tables and assisted in providing a summary about the sample and the measures derived from the analysis (Trochim, 2000). The standard deviation for all three categories was also determined. All statistics were presented alongside graphic representations that became the foundation for successive data analysis (Trochim, 2000). Further analysis between the overall weighted scale means for each group were conducted through an Independent Samples t-test to determine if there was statistical significance between the EDWP and non-EDWP group scores as it related to the overall mean of each category within the survey.

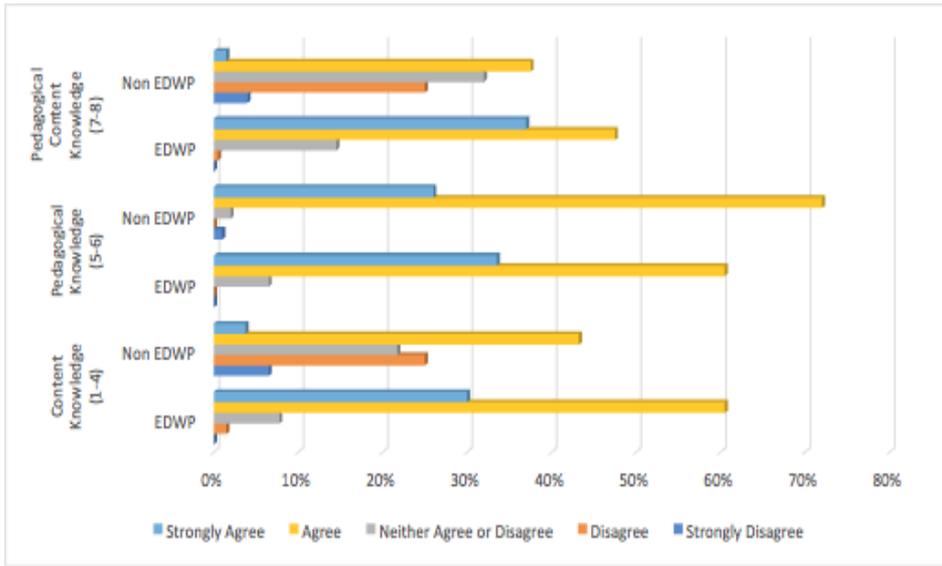


Figure 1. Mean Percentage of Survey Items for EDWP and Non-EDWP Students

Findings

Pre-service teachers' perceived self-efficacy of content knowledge

Survey items one through three addressed pre-service teachers' perceived self-efficacy of wellness and physical activity content knowledge. Results indicated that the weighted mean of question one for EDWP students ($M = 3.94$) was higher than the that of non-EDWP students ($M = 2.69$). Thus, EDWP students agreed that they have sufficient knowledge about movement skills and concepts for children, while non-EDWP students' weighted mean indicated that they were between 'disagree' and 'neutral'. Question two revealed that EDWP students' self-efficacy regarding their knowledge about health skills and concepts for children was slightly lower ($M = 3.83$) than their knowledge regarding movement skills; however, it remained slightly higher than the self-efficacy of non-EDWP students ($M = 3.53$), regarding health skills and concepts. The last question within the content knowledge category revealed that EDWP students perceived, on average, to have a higher level of self-efficacy ($M = 3.91$), compared to students who did not take courses in wellness and physical activity integration ($M = 3.66$) (See Table 1).

Table 1.
Mean Scores of Survey Items (Content Knowledge)

Survey Item (CK)	EDWP Mean Scores	Non-EDWP Mean Scores
1. I have sufficient knowledge about movement skills and concepts for children.	3.94	2.69
2. I have sufficient knowledge about health skills and concepts for children.	3.83	3.53
3. I have sufficient knowledge about active living skills for a healthy lifestyle for children.	3.91	3.66

Pre-service teachers' perceived self-efficacy of pedagogical knowledge

Items related to pedagogical knowledge and pre-service teachers' self-efficacy were assessed in the second category of the survey. Findings revealed that both EDWP and non-EDWP students scored themselves higher in their perceived ability to adapt their teaching to what students currently understand or do not understand (EDWP, $M = 4.64$; non-EDWP, $M = 4.43$), compared to their belief about their ability to adapt their teaching style to different learners (EDWP, $M = 3.93$; $M = 3.46$). While both groups were in the 'agree' to 'strongly agree' range of the scale, EDWP pre-service teachers' scores revealed a higher rating for both questions, compared to the self-efficacy scores of non-EDWP pre-service teachers (See Table 2).

Table 2.
Mean Scores of Survey Items (Pedagogical Knowledge)

Survey Item (PK)	EDWP Mean Scores	Non-EDWP Mean Scores
4. I can adapt my teaching based upon what students currently understand or do not understand	4.64	4.43
5. I can adapt my teaching style to different learners	3.93	3.46

Pre-service teachers' perceived self-efficacy of pedagogical content knowledge

The mean for items six through eight, related to pedagogical content knowledge, indicated the largest difference between EDWP and non-EDWP students' scores across all categories. These questions addressed students' perceived self-efficacy to teach content in wellness and physical activity. Scores for EDWP students on each survey item were all similar and lay within the 'agree' range of the scale ($M = 3.79$; $M = 3.88$; $M = 3.92$). On the contrary, EDWP students' mean scores were closer to the 'disagree' side of the scale ($M = 2.70$; $M = 2.69$; $M = 2.72$) (See Table 3).

Table 3.
Mean Scores of Survey Items (Pedagogical Content Knowledge)

Survey Item (CPK)	EDWP Mean Scores	Non-EDWP Mean Scores
6. I know how to select effective teaching approaches in wellness and physical activity to guide student thinking and learning in all subject areas.	3.79	2.70
7. I can teach lessons that appropriately combine wellness and physical activity with content areas (mathematics, language arts, social studies, and science).	3.88	2.69
8. I have various ways and strategies of developing my own understanding of wellness and physical activity for integration into the classroom.	3.92	2.72

Findings of independent samples t-test

In addition to the mean scores for individual survey items, the overall mean for each categorical variable was derived, and an independent samples t-test was conducted on the mean scores for each category to determine if the differences in results between the groups were statistically significant. Prior to the independent t-test, a Shapiro-Wilk test of normality was conducted to test for normal distribution of the dependent variable (Shapiro & Wilk, 1965). Results indicated a non-significant value ($p > .05$), thus a normal distribution was revealed. Descriptive statistics for the findings are presented

in Table 4. Results of the inferential test indicated that there was a statistically significant difference ($p = .0012$), between EDWP and non-EDWP pre-service teachers' self-efficacy in pedagogical content knowledge. While the EDWP scores were higher in the content and pedagogical knowledge categories than non-EDWP, the t-test did not reveal statistical significance between the groups scores in those categories.

Table 4.

Results of t-tests and Descriptive Statistics for Content Knowledge, Pedagogical Knowledge, Pedagogical Content Knowledge

Outcome	Group						95% CI for Mean Difference	t	df
	EDWP			Non-EDWP					
	M	SD	n	M	SD	n			
Content Knowledge	3.90	.05	86	3.29	.52	62	.71, 1.9	1.96	2
Pedagogical Knowledge	4.28	.50	86	3.94	.68	62	-7.29, 7.97	.56	1
Content Pedagogical Knowledge	3.86	.06	86	2.70	.01	62	.99, 1.32	29.41*	2

* $p < .05$.

Discussion

Research suggests that high levels of self-efficacy are critical to the willingness of a teacher to integrate content beyond core academics in their classroom (Zee & Koomen, 2016). However, as pressure to increase students' performance on standardized tests mounts, less emphasis has been placed on content both at the pre-service and in-service levels outside of tested subject areas (Whitehouse & Schafer, 2017). Consequently, many pre-service teachers enter the field with the belief that anything beyond teaching core content is not part of their "role" and lack the confidence and skills necessary to teach beyond their certified area of expertise. Thus, self-efficacy on how to integrate other content areas such as wellness and physical activity remains low, as teachers are unequipped and in some cases unwilling or unenthusiastic about integrating wellness and physical activity when they enter the field. This idea is in direct alignment with the findings of this study. While results of the survey did not indicate a statistically significant difference in what participants knew (content) and

their belief in their ability to teach, (pedagogy) based on students' needs, there was a significant difference in pre-service teachers' self-efficacy regarding development and implementation of lessons that integrate wellness and physical activity. The wellness and physical activity courses offer ample hands-on experiences to pre-service teachers on the "how-to" of integrating content into wellness and physical activity, thus revealing why this category was significantly higher for pre-service teachers who had taken a wellness and physical activity course. Although elementary physical education courses that were once required in teacher preparation are slowly diminishing (Siedentop, 2002), these findings suggest that providing pre-service teachers with such courses may facilitate integration once in the classroom due to an increase in self-efficacy.

While 75% - 80% of teachers agree that physical activity is important for children and over 50% agreed they would integrate three to five times a week, level of preparedness was indicated as the largest self-perceived barrier to following through with intentions to integrate physical activity (Parks et al., 2007). In alignment with this notion, the self-efficacy theory notes that efficacious beliefs can arise from mastery experiences through multiple means of success (Bandura, 2010). If teachers do not possess mastery experiences before entering the field to integrate wellness and physical activity, their self-efficacy or willingness to take on extra role behavior is non-existent. Thus, providing ample learning and teaching opportunities throughout undergraduate programs beyond traditional core coursework is essential to encouraging teachers to teach beyond the "role" of a classroom teacher. By means of the wellness and physical activity endorsement coursework involved in the current study, the EDWP students were provided with multiple opportunities to demonstrate mastery of skills through numerous assignments. Students who completed this survey had taken at least one of the wellness and physical activity courses; thus, providing them with opportunities to master skills for effective wellness and physical activity integration. Conversely, non-EDWP students were not provided the same opportunity. This could justify the reason for higher levels of perceived self-efficacy indicated by EDWP students on the surveys as compared to non-EDWP students.

While mastery experiences may have been critical to outcomes in this study based on the self-efficacy theory, most pre-service teachers in the United States do not have the opportunity to engage in such courses, as many teacher preparation programs do not currently offer or require education majors to take wellness and physical activity integration coursework. With a lack of emphasis on integration beyond core content, it could be posited that in-service teachers are not entering the field with enough experience and/or self-efficacy to hold strong convictions about the integration of wellness and physical activity to stand strong in their ground when change comes their way (Webster et al., 2013). Further, a sense of collective-efficacy is not possible without multiple teachers having similar positive experiences. Since we know that experience is key to teachers accepting extra role behavior (Zee & Koomen, 2016) and obtain-

ing high levels of self-efficacy, the results of this study add to the breadth of literature on the importance of the development of appropriate coursework and through that, creating pre-service teachers who have self-efficacy in wellness and physical activity integration. Subsequently, fostering a sense of collective-efficacy among teachers who are both willing and able to facilitate this type of methodology once in the field.

Although providing pre-service teachers with coursework in wellness and physical activity may lead to higher self-efficacy and seemingly more integration in the classroom, teachers may encounter resistance, as many schools have increased instructional time in mathematics and English language arts over the past couple of decades (Whitehouse & Schafer, 2017). The conviction is that more instruction time leads to higher test scores. However, research contends that wellness and physical activity integration increases both academic achievement and positive health outcomes (Mullender-Wijnsma et al., 2015). Therefore, the following question arises: what is the true barrier to integration and university coursework given that integrated learning increases children's cognitive capacity, specifically when the focus extends to children's physical, social, and emotional health through wellness and physical activity integration? Thus, this research adds to the scope of literature on the importance of not only teacher preparation programs to embed coursework that fosters teachers who are efficacious and can move into the field with other teachers who have collective self-efficacy in wellness and physical activity integration, but also for in-service teachers to experience professional development that affords them the opportunity to develop collective self-efficacy and strong convictions in wellness and physical integration methods. Further, this study provides evidence and possible encouragement for more teacher preparation programs to offer coursework on wellness and physical activity integration if a paradigm shift is to occur from a compartmentalized scope of unitizing academics to a realm wherein teachers are confident in their abilities to afford children the opportunity to learn through multiple content areas, such as wellness and physical activity integration, leading to higher levels of academic success and overall development of the whole child (Barnard, Van Deventer, & Oswald, 2014; Erwin, Beigle, Carson, & Castelli, 2013; Howie, Beets, & Pate, 2014).

Limitations

While findings of the present study indicate positive implications on self-efficacy when pre-service teachers take coursework in wellness and physical activity integration, it is not without limitations. One limitation of the present study was the constraint of geographic location. Because the survey was only administered to pre-service teachers at one university, the results are not generalizable. Further, although the survey was administered in the same course to all students, it was administered at different times and on different days. Thus, some students who took it at the beginning of a class session or earlier in the morning may have been more inclined to spend additional time

on the survey, whereas student who took it towards the end of a class session or later at night may not have been as focused on answering questions to the best of their ability. Finally, the survey was not distributed to students who had only taken one course and other students who may have taken two or three wellness and physical activity endorsement courses.

Future Research

In reference to a limitation, an initial area for future research would be to examine the differences of self-efficacy among pre-service teachers taking only one EDWP course as compared to those who completed the entire endorsement. It would also be beneficial for future research to look at the impact of wellness and physical activity integration coursework for pre-service teachers on their perceived self-efficacy within different geographical areas, including the state and across the nation. Future research may also conduct a longitudinal study that follows pre-service teachers into the field to determine their continued levels of self-efficacy and impact of collective self-efficacy of teachers within a school with similar training. This same concept could also be examined over the span of a pre-service teacher's undergraduate training. One final beneficial research study of interest would be to garner elementary and special education students' academic outcomes of teachers who have had training in wellness and physical activity integration during their teacher preparation programs, as compared to teachers who did not have training. The researchers are in the beginning stages of evaluating the impact of these courses in the field on both teachers and students in the classroom setting.

Conclusion

Self-efficacy is paramount to the success of teachers in all domains of the teaching profession; therefore, it is essential to keep in mind the detriment of a paradigm wherein pre-service teachers enter the field underprepared in their self-efficacy and convictions about integration of material beyond tested subject areas. To alter this paradigm, it will take concerted efforts from policy-makers, teacher preparation programs, and schools to place a renewed focus on the importance of developing teachers who are provided opportunities to master content beyond core academics through innovative coursework; thus in turn, leading to self-efficacy, collective efficacy, and ultimately impacting the success of children. The current study examined a potential paradigm in which pre-service teachers engaged with wellness and physical activity integration as a methodology through undergraduate coursework. Findings revealed that even just one course in wellness and physical activity integration has the ability to increase significantly the self-efficacy of pre-service teachers. Perhaps through these findings, implications and future research, classroom teachers across the state and nation can develop strong self-efficacy in teaching the whole child by implementing curriculum

beyond the core subjects.

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