PETE Faculty Beliefs Concerning the Preparation of Preservice Teachers for CSPAP Roles:

An Exploratory Study

(IN PRESS at THE PHYSICAL EDUCATOR)
Abstract

The purpose of this study was to examine the perceived effectiveness and attitudes of Physical Education Teacher Education (PETE) faculty concerning the preparation of preservice teachers for Comprehensive School Physical Activity Programs (CSPAP) roles. Faculty (N = 175) responded to an electronic survey assessing perceived effectiveness and attitudes related to preparing undergraduate majors and non-majors for CSPAP roles. Factor analysis of the survey items resulted in a four factor solution: (a) Effectiveness in Preparing Program Majors for Quality Physical Education; (b) Effectiveness in Preparing Program Majors for Other CSPAP Roles; (c) Effectiveness in Preparing Non-Majors for CSPAP Roles; and (d) Attitude Toward Preparing Program Majors for Other CSPAP Roles. Faculty agreed the most that their programs were effectively preparing majors for roles within quality physical education and agreed the least that their programs should be preparing majors for leadership roles with respect to school employee wellness and involvement in physical activity promotion. This study reveals a glimpse of PETE’s current commitment to public health-related goals and can inform CSPAP preparation in preservice education.

Keywords: public health, teacher education, professional preparation, physical education teachers, classroom teachers
PETE Faculty Beliefs Concerning the Preparation of Preservice Teachers for CSPAP Roles: An Exploratory Study

The Comprehensive School Physical Activity Program (CSPAP) is conceptualized as a coordinated, multi-component approach for promoting physical activity (PA) in and around schools (CDC, 2013; NASPE, 2008a). It encompasses numerous evidenced-based strategies (Erwin, Beighle, Carson, & Castelli, 2013; Ward, 2011) for increasing PA through five key components: (a) quality physical education, (b) PA during school, (c) PA before and after school, (d) staff involvement, and (e) family and community engagement (CDC, 2013; NASPE, 2008a). A quality physical education program is viewed as the cornerstone of a CSPAP. Its primary purpose is instructional in nature (Institute of Medicine [IOM], 2013), as it should be designed in alignment with content standards (SHAPE America & Human Kinetics, 2014) to help children and adolescents learn the knowledge, skills, and values for leading a physically active life. The other CSPAP components target behavioral, as opposed to instructional, outcomes (IOM, 2013). The purpose of these components is primarily to influence the daily behaviors of youth and others in the school community. PA during school includes opportunities at recess, during “drop-in” events (e.g., during lunch), and in the general education classroom (i.e., movement breaks and PA integrated with academic lessons). PA before and after school includes opportunities such as active commuting programs, physical activity clubs and intramurals, and interscholastic sports. Staff involvement focuses on staff wellness initiatives aimed at improving the health of school staff (e.g., teachers and administrators) and gaining support from school staff for PA promotion. Family and community involvement focuses on the various roles parents and community organizations can play in supporting school-based efforts to promote youth PA (e.g., family participation in evening/weekend special events, joint-use agreements between schools and community organizations) (NASPE, 2008a; IOM, 2013).
CSPAPs are identified in the National Physical Activity Plan as one of seven strategies to promote PA in the education sector (National Physical Activity Plan – Education, 2011). One of the recommended tactics for pursuing this strategy is to “require pre-service and continuing education for physical education and elementary classroom teachers to deliver high-quality physical education and physical activity programs.” This emphasis on physical education teachers (K-12) and elementary classroom teachers is reinforced in recommendations by physical education scholars (e.g., Beighle, Erwin, Castelli, & Ernst, 2009; Beighle & Moore, 2012; Carson, 2012; Castelli & Ward, 2012; Cipriani, Richardson, & Roberts, 2012; Hall, Little, & Heidorn, 2011; Heidorn & Centeio, 2012; Webster, 2011; Webster et al., 2013; Webster, Monsma, & Erwin, 2010). Specific to preservice preparation, a number of authors have provided guidelines for teacher education programs to integrate learning experiences designed to provide teacher candidates with the skills, knowledge, and values deemed necessary to effectively promote PA in school communities (Webster, et al., 2015). The focus of most of these guidelines is on what PETE programs can do to prepare preservice physical education teachers for PA promotion through schools (e.g., Beighle et al., 2009; Bulger & Housner, 2009; Bulger, Housner, & Lee, 2009; Corbin & McKenzie, 2008; McKenzie, 2007). For example, several authors have recommended PETE programs restructure their curricula to provide learning experiences that build teaching candidates’ PA promotion knowledge and skills (e.g., Beighle et al., 2009; Corbin & McKenzie, 2008; McKenzie, 2007). However, other authors have also focused on what PETE should do to prepare preservice classroom teachers for PA promotion (Hall et al., 2011; Webster, 2011; Webster, Erwin, & Parks, 2013; Webster, Monsma, & Erwin, 2010), such as reconceptualising coursework for classroom majors that has traditionally focused on physical education teaching so that other learning experiences (e.g., developing strategies for increasing PA at recess and in the classroom) can be integrated.
Despite these recommendations, little is known about the extent to which PETE programs are effectively preparing preservice physical education or classroom teachers for CSPAP roles. Teacher socialization studies demonstrate that evoking desired changes in preservice teachers’ teaching beliefs and practices can be challenging (Curtner-Smith, 1999; Lortie, 1975). However, faculty beliefs and attitudes can play an important role in facilitating adaptive changes in teacher candidates’ beliefs (Kagan, 1992; Tato, 1998). From this perspective, initial inquiry into preservice preparation for CSPAP can benefit from an examination of PETE faculty beliefs, as such beliefs may provide a meaningful metric of potential program effectiveness. Therefore, the purpose of this study was to explore the perceived effectiveness and attitudes of PETE faculty concerning the preparation of undergraduate preservice teachers (including physical education majors and elementary classroom majors) for CSPAP roles. The following research questions were addressed:

1. Do PETE faculty agree that their undergraduate programs are effectively preparing preservice physical education (K-12) teachers and preservice elementary classroom teachers for CSPAP roles?

2. Do PETE faculty agree that their undergraduate programs should prepare preservice physical education teachers for CSPAP roles beyond quality physical education?

Method

Participants

Participants in this study were PETE faculty members ($N = 175$) who responded to an electronically disseminated survey (see Instrumentation and Procedures sections below). The survey was sent to 567 faculty members representing 539 undergraduate PETE programs across the U.S in Spring 2013. The intent was to send the survey to undergraduate program directors; however, it was not always clear from program websites who currently held this
position. Therefore, for several programs, the survey was sent to more than one PETE faculty member.

The overall response rate (31%) is similar to the mean reported response rate for other online surveys, according to the results of a meta-analysis (Cook, Heath, & Thompson, 2000). However, it is not as high as previous survey studies with PETE faculty. Metzler and Freedman (1985) reported a response rate of 46% using a mail-back survey, and Graber, Erwin, Woods, Rhoades and Zhu (2011) reported a response rate of 48.4% using an online survey.

Some of the respondents did not complete all of the items on the survey; in most cases, incomplete items were from the demographic questionnaire included at the end of the survey. For demographic items, 146 respondents reported their age ($M = 51.54$, $SD = 9.05$), 157 reported their biological sex (about 43% male and 57% female), and 155 reported their college/university affiliation (each participant was from a different college/university). PETE programs from 43 states were represented among participants. Further descriptive information about the participants and their programs is presented in Table 1.

**Procedure and Instrumentation**

Approval to conduct this study was obtained from the university’s institutional review board prior to data collection. An electronic survey was developed for the study using SurveyMonkey. Items were written and organized using the five-component CSPAP framework (CDC, 2013; NASPE, 2008a) and recommendations (e.g., Carson, 2012; Castelli & Ward, 2012; Cipriani et al., 2012; Heidorn & Centeio, 2012; Hall et al., 2011) as a guide. Some minor changes were made to the framework to draw clearer distinctions between and within CSPAP components for participants. Specifically, one of the components – staff involvement – was divided into two components to better distinguish between staff wellness and staff promotion. In addition, PA during school was modified to give particular emphasis to the role
of elementary classroom teachers in promoting PA at recess and in the general education classroom.

The survey consisted of eight sections, which were preceded by an informed consent form with the stated purpose of the study, and the directions with definitions of key terms. The definition provided for a preservice physical education teacher was “an undergraduate student majoring in physical education, who aspires to work professionally as a school physical education teacher.” The definition provided for a preservice classroom teacher was “An undergraduate student majoring in elementary or early childhood education, who aspires to work professionally as a school generalist classroom teacher.” The definition provided for effectively was “at a level commensurate with current professional standards and guidelines.”

The first five sections of the survey used the stem, “My undergraduate PETE program prepares preservice physical education teachers to effectively….” For each section, this stem was followed by a set of items related to one of the CSPAP components. Section 1 consisted of seven items focusing on quality physical education (e.g., “Align assessment with instruction in physical education”). Section 2 consisted of six items focusing on before- and after-school physical activity (e.g., “Organize physical activity clubs for students”). Section 3 consisted of four items focusing on staff wellness (e.g., “Organize wellness events for school employees”). Section 4 consisted of five items focusing on staff involvement (e.g., “Help classroom teachers learn to increase students’ physical activity in their classrooms”). Section 5 consisted of six items focusing on family and community engagement (e.g., “Collaborate with community organizations to increase students’ use of community facilities to be physically active outside of school”).

Section 6 used the stem, “My undergraduate PETE program prepares preservice classroom teachers to effectively…” which was followed by five items (e.g., “Integrate physical activity into academic lessons [e.g., math, science, language arts]”). In Section
Seven, participants were asked about their level of agreement with respect to preparing undergraduate physical education majors for CSPAP roles. This section used the stem, “PETE programs should prepare physical education teachers for a leadership role at schools with respect to…” and was followed by seven items, one for each CSPAP component assessed on the survey (e.g., “Quality physical education”; “Before-/after-school physical activity programs”).

Section Eight consisted of items pertaining to demographic/background information (e.g., gender, academic rank, professional responsibilities) and program information (i.e., number of full- and part-time faculty in the program, number of graduate student instructors in the program). For all sections of the survey, a four-point Likert-type scale was used with the response options “1 = Strongly Disagree”, “2 = Disagree”, “3 = Agree”, and “4 = Strongly Agree”. Sections One through Six also included a fifth option, “Don’t Know”. A full copy of the survey can be obtained from the first author.

A preliminary version of the survey was reviewed for content validity with three noted experts in school wide PA promotion, all of whom have published research and/or recommendations related to CSPAP. Based on the experts’ feedback, several questions were added to reflect the CSPAP information and recommendations available from additional sources, such as the PELINKS4U website (e.g., Beets, n.d.; Erwin, n.d.), and the School Physical Activity Policy Assessment (SPAPA) instrument (Lounsberry, McKenzie, Morrow, & Holt, 2011). Further, response options were added for faculty responsibilities in Section Eight of the survey. The revised survey was then pilot tested with two PETE faculty members for clarity, readability, and feasibility of implementation. Based on their feedback, several questions were rewritten in a more straightforward manner, two sections were reordered to improve the logical flow of the items, and the directions at the beginning of the instrument were revised in accordance with the other changes.
A working list of all undergraduate PETE programs in the U.S. was obtained from colleagues who were in the process of updating information from an outdated directory of programs (Ayers, Housner, & Kim, 2004). An Internet search was used to verify the identified programs, program directors, and contact information on the list. Programs identified in the search that were not on the original list were added and programs that could not be verified on the original list were deleted. The final list included 539 programs. Contacts on the list were emailed an invitation to participate in the study with a link to the survey and an opt-out link. The email contained the purpose of the study and the reason why the individual had received an invitation to participate (i.e., because they were identified as an undergraduate PETE program director/teacher educator). Additionally, email recipients were asked to email the principal investigator with email contacts for anyone in their program they thought would be better suited to complete the survey and/or should also take the survey. The survey was sent again via three follow-up emails over a four-week span to maximize participant response.

**Data Analysis**

Exploratory factor analysis with maximum likelihood extraction and direct oblimin rotation with Kaiser normalization was used to explore the latent factor structure of the observed items on the survey (Costello & Osborne, 2005). Coefficients with values below .4 were suppressed (Tabachnick & Fidell, 2001). Scree plots and item loadings were examined to determine the best fitting solution among 4-8 fixed factors. Cronbach alpha was used to test the internal consistency of the items for each factor in the final solution. Response frequencies, means and standard deviations were calculated for all items by factor. All statistical analyses were computed using SPSS (version 21.0).

**Results**

**Survey: Perceived Effectiveness and Attitudes Related to CSPAP Preparation**
A four-factor solution was selected based on the results of the factor analysis (see Table 2). The factors were labelled (a) Effectiveness in Preparing Program Majors for Quality Physical Education, (b) Effectiveness in Preparing Program Majors for Other CSPAP Roles, (C) Effectiveness in Preparing Non-Majors for CSPAP Roles, and (d) Attitude Toward Preparing Program Majors for Other CSPAP Roles. The first factor included items 1-6 from Section 1 of the survey. The second factor included all 21 items from Sections 2-5 of the survey. The third factor included all five items from Section 6 of the survey. The fourth factor included items 2-7 from Section 7 of the survey. In all, two items were removed because their loadings were below .4. These included item 7 from Section 1 (“My Undergraduate PETE program prepares preservice physical education teachers to effectively teach simple games students can play to be active during recess/lunch/free periods”) and item 1 from Section 7 (“PETE programs should prepare preservice physical education teachers for a leadership role at schools with respect to quality physical education”). Internal consistencies for each factor in the final model were good to excellent (.87-.96).

Given the relatively large number of items loading on the second factor (Effectiveness in Preparing Program Majors for Other CSPAP Roles), we ran an additional item analysis in SPSS to examine the corrected item-total correlation, alpha if item deleted, and effects on scale mean/variance for the items just in this factor. The item-total correlations were all high (.51-.74) indicating strong intercorrelations between the items in this factor. Additionally, the results indicated that the Cronbach Alpha would remain high (at least .936) if any of the items were deleted from the factor. Thus, while statistically there were many items in this factor, the items appeared to be functioning acceptably as a coherent set of items. We therefore turned our attention to the operational definition of the construct, which encompasses CSPAP roles in multiple contexts (e.g., before-/after-school programs, home/community settings). The construct is “wider” in definition/scope than the other
constructs targeted in the survey, and broader constructs typically need more items to map the
construct domain than do smaller, narrower constructs (Crocker & Algina, 1986). All of the
items help to operationally define the construct, and, as such, deleting any of the items would
falsely narrow the conceptual band for the construct. Furthermore, each item provides a
unique perspective related to specific CSPAP roles of interest in this study. Based on this
expanded statistical and conceptual examination of the construct, we opted to retain all of the
items.

Descriptive statistics on perceived effectiveness and attitudes are presented in Table
2. Participants reported higher perceived effectiveness in preparing preservice physical
education teachers (program majors) for quality physical education ($M = 3.63$, $SD = .49$) than
for other CSPAP roles ($M = 2.58$, $SD = .56$) or for preparing preservice classroom teachers
(non-majors) for CSPAP roles in the academic classroom and at recess ($M = 2.78$, $SD =
1.15$). For items assessing perceived effectiveness in CSPAP preparation beyond quality
physical education, the highest mean scores were for preparing program majors to help
classroom teachers learn to promote physical activity and preparing program majors to
organize school wide physical activity promotion efforts. The lowest perceived effectiveness
scores were for items that pertained to increasing the availability of transportation between
school and other community-based sites where youth can be physically active and training
after-school program staff as physical activity promoters.

The mean response across all attitude items was 3.15 ($SD = .56$), reflecting a general
consensus among participants that PETE programs should be preparing preservice physical
education teachers for CSPAP roles beyond quality physical education. However, PETE
faculty were more likely to disagree or strongly disagree that PETE programs should be
preparing program majors for addressing the health and wellness of other school employees
or increasing the promotion efforts of other school employees. About one third of participants
disagreed or strongly disagreed that PETE should be preparing majors for leadership roles with respect to school employee wellness, while about one quarter of surveyed PETE faculty disagreed with the statement that PETE should be preparing majors for leadership roles with respect to school employee involvement in physical activity promotion.

Discussion

This study examined the perceived effectiveness and attitudes of PETE faculty across the U.S. in relation to preparing preservice teachers for CSPAP roles, as defined by numerous recommendations (e.g., CDC, 2013; NASPE, 2008a; Webster et al., 2015). The majority (76%) of the survey respondents reported they were undergraduate PETE program directors, which increases our confidence that overall, the perspectives reflected in this study derive from faculty who should have a broad overview of program offerings. Overall, responses leaned more toward agreement than disagreement on scale items assessing perceived effectiveness, but a substantial percentage of PETE faculty respondents shared doubt about whether, at the time of the study, programs were effectively preparing preservice teachers for a broad range of CSPAP roles. On one hand, respondents felt their programs were strongest in preparing program majors for quality physical education. Similarly, responses on the attitude factor indicated that faculty believed quality physical education was an important function of PETE. On the other hand, faculty reported relatively low perceived effectiveness scores, and slightly more disparate attitudes, related to the preparation of preservice teachers for roles beyond quality physical education. Several perceived effectiveness items focusing on the preparation of program majors for roles related to staff wellness and staff involvement in PA promotion were particularly low. Moreover, based on the attitude data, there was a relatively low level of agreement that PETE programs should be preparing majors for a leadership role with respect to staff wellness and staff involvement. Future research might examine the beliefs underpinning faculty attitudes toward
CSPAP preparation, as well as the relationship between faculty attitudes and commitments related to CSPAP preparation. It could be that faculty believe some CSPAP roles (e.g., staff wellness and involvement) are peripheral to, or even beyond the purview of, the professional responsibilities of physical education teachers. These beliefs may form the basis of unfavourable attitudes (Ajzen, 1991), which in turn may attenuate faculty commitments to preparing majors for these roles.

These results might be explained, at least in part, by the external accountability structure in place for CSPAP preparation in PETE. Currently, the knowledge and skills for leading a quality physical education program are the dominant focus of the national standards for initial teacher certification in physical education (NASPE, 2008b), which are widely used for program accreditation in PETE. These standards have historically had a major influence on the preparation of physical education teachers (Ayers & Housner, 2008). Incorporating a focus on knowledge and skills related to other CSPAP components into the standards, as well as may be a critical step that needs to be taken for the field to play a broader, and potentially more impactful, role in the public health arena. In addition, the results of an informal national survey conducted by the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD, 2011), now SHAPE America, indicated that 16% of elementary schools, 13% of middle schools, and 6% of high schools provided a CSPAP (AAHPERD, 2011).

Thus, the current employment profile for physical education teachers may not typically include CSPAP roles beyond physical education. Until CSPAPs are formally integrated with professional standards and expected responsibilities of physical education teachers, many PETE faculty may feel preparing majors for expanded PA promotion roles is unnecessary.

While enhancing the PA promotion efforts of other school staff members through wellness initiatives and professional development may be beyond what some PETE professionals perceive as the responsibility of physical educators, one of the key assets of
successful approaches to garnering school wide support for PA promotion is a “champion”
within the school who can galvanize others in the school community to take action as PA
promoters (Doolittle & Rukavina, 2014; Jones et al., 2014; Langille & Rodgers, 2010). The
IOM (2013) recommends that schools identify champions to lead PA promotion efforts in
schools. With quality physical education as the foundation of a CSPAP (CDC, 2013; NASPE,
2008a), physical education scholars have called for physical education teachers to be
champions for school wide PA promotion by serving as PA directors/leaders (e.g., Beighle
Erwin, Castell & Ernst, 2009; Bulger & Housner, 2009; Carson, 2012; Heidorn & Centeio,
2012). Physical education teachers who work to provide staff wellness programs/events and
who organize/lead professional development opportunities for classroom teachers and other
school staff may be taking crucial steps in championing the importance of PA and expanding
PA promotion beyond the physical education classroom.

This study has several limitations. First, the data provide the perspectives of
participants in this study and are therefore subjective. Observational data (e.g., sample
lessons from courses, sample field experiences) would add an objective lens to this research,
although obtaining such data from more than one or two programs would require more
resources than were available for this study. However, research examining CSPAP learning
experiences in PETE programs can also be strengthened by considering the perspectives of
other program faculty, as well as students, in these programs. In addition, obtaining program-
related documents (e.g., course syllabi, programs of study) would help to confirm the veracity
of participants’ perspectives regarding the nature of these experiences. Second, despite the
efforts taken to maximize participant responses to the electronic survey, the response rate was
lower than previous studies surveying PETE faculty (e.g., Graber et al., 2011; Metzler &
Freedman, 1985). The low response rate limits the generalizability of the study’s findings.
While the participants represented PETE programs from nearly all of the states, the majority
of programs targeted for participation are not represented in this study. The results might have been different had there been a higher rate of survey responses. Third, given the exploratory nature of this study, we did not subject the survey to rigorous psychometric testing. This should be an aim of future research within this line of inquiry. Finally, this study did not consider a range of other variables that might play a role in faculty perceptions and attitudes. Future investigations could explore the possible influence of faculty characteristics (e.g., professional socialization), program characteristics (e.g., in which school/college the program is situated), and university characteristics (e.g., Carnegie classification) on the extent of CSPAP preparation the program offers.

In conclusion, the results of this study provide an initial glimpse of PETE faculty as potential players in efforts to more squarely situate physical education at the vanguard of school- and community-based PA promotion. While it is clear that most programs had integrated CSPAP learning experiences, very few PETE faculty appeared to believe that their programs were effectively preparing preservice teachers for roles in all CSPAP components. One reason for this may be that faculty place unequal value across different CSPAP components. Based on the results, we suggest that faculty believed preparing majors to lead staff involvement and wellness initiatives is less important than other program functions to the mission of PETE, and by extension, physical education. If the future of the field is defined by a commitment to goals beyond that which can be achieved in the physical education classroom, then it may become imperative for PETE to prioritize learning experiences that help majors to capitalize on the support of other school professionals (Castelli, Centeio, & Nicksic, 2013). Ultimately, garnering school wide support for a CSPAP may be an important step toward establishing and nurturing sustainable partnerships, both within and outside of the school setting, that can maximize the program impact (Webster, Beets, Weaver, Vazou, & Russ, in press).
References


SHAPE America & Human Kinetics. (2014). *National Standards & Grade-Level Outcomes*


### Table 1

**Descriptive Information about Participants (N = 175) and Their Programs**

<table>
<thead>
<tr>
<th>Mean Years of Experience in PETE (n = 157)</th>
<th>Academic Rank (n = 157)</th>
<th>Academic Status (n = 157)</th>
<th>Program Responsibilities (n = 157)</th>
<th>Mean Number of Full Time Program Faculty (n = 157)</th>
<th>Mean Number of Part Time/Adjunct Program Faculty (n = 157)</th>
<th>Mean Number of Graduate Teaching Assistants (n = 156)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M = 18.34 (SD = 10.43)</td>
<td>Instructor = 5%</td>
<td>Clinical/Non-Tenure Track = 51%; C = 54%; D</td>
<td>A = 76%; B = 64%; E = 22%; F = 49%; G = 56%; H = 27%; I = 33%; J = 24%</td>
<td>M = 3.94 (SD = 2.96)</td>
<td>M = 3.04 (SD = 4.25)</td>
<td>M = .52 (SD = 1.55)</td>
</tr>
<tr>
<td>Assistant</td>
<td>Associate</td>
<td>Tenure Track = 10%</td>
<td>Tenure Track = 22%</td>
<td>Tenured = 62%</td>
<td>Full Professor = 36%</td>
<td>Other = 6%</td>
</tr>
<tr>
<td>Professor = 20%</td>
<td>Professor = 35%</td>
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<tr>
<td>Other = 8%</td>
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</tbody>
</table>

Note: There were 175 total respondents, but several respondents did not complete all items for the demographic questionnaire at the end of the survey. A = Direct undergraduate PETE program; B = teach elementary methods class; C = teach secondary methods course; D = teach curriculum course; E = teach kinesiology course; F = teach content/skills course; G = supervise student teachers; H = direct student teaching; I = teach classroom teachers course; J = other.
### Final Factor Model and Descriptive Statistics

<table>
<thead>
<tr>
<th>Factor</th>
<th>Item</th>
<th>Loading</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>% Agree/Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness in Preparing Program Majors for Quality Physical Education</td>
<td>1. Teach toward all six national standards for K-12 physical education.</td>
<td>.853</td>
<td>175</td>
<td>3.74</td>
<td>.60</td>
<td>97.2</td>
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<td></td>
<td>2. Maximize students’ practice time during physical education lessons.</td>
<td>.807</td>
<td>175</td>
<td>3.70</td>
<td>.63</td>
<td>97.1</td>
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<td></td>
<td>3. Draw on theory/research to promote students’ physical activity.</td>
<td>.741</td>
<td>175</td>
<td>3.34</td>
<td>.69</td>
<td>93.7</td>
</tr>
<tr>
<td></td>
<td>4. Provide personally meaningful learning experiences for students during physical education lessons.</td>
<td>.731</td>
<td>175</td>
<td>3.67</td>
<td>.66</td>
<td>97.1</td>
</tr>
<tr>
<td></td>
<td>5. Align assessment with instruction in physical education.</td>
<td>.681</td>
<td>175</td>
<td>3.69</td>
<td>.58</td>
<td>97.7</td>
</tr>
<tr>
<td></td>
<td>6. Maximize students’ moderate-to-vigorous physical activity during physical education lessons.</td>
<td>.557</td>
<td>175</td>
<td>3.62</td>
<td>.59</td>
<td>96.6</td>
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<tr>
<td></td>
<td><strong>Total Variance Explained = 7.35%</strong></td>
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<td></td>
<td><strong>Mean Response Across Items = 3.63 (SD = .49)</strong></td>
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<td></td>
<td><em>α</em> = .87</td>
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</table>

| Effectiveness in Preparing Program Majors for Other CSPAP Roles | 1. Train before-/after-school program staff to provide children with developmentally appropriate physical activities. | .823    | 174 | 2.29| .88 | 38.5                   |
|                                                                | 2. Organize intramural sports programs for students.                 | .810    | 174 | 2.44| .89 | 47.7                   |
|                                                                | 3. Train before-/after-school program staff to maximize children’s physical activity. | .794    | 174 | 2.29| .88 | 38.5                   |
|                                                                | 4. Organize physical activity clubs for students.                    | .695    | 174 | 2.54| .82 | 55.2                   |
|                                                                | 5. Tailor employee wellness initiatives to the health needs of individual participants. | .695    | 172 | 2.31| .83 | 36.0                   |
6. Increase the availability of transportation from school to community facilities where students can be physically active.  
   \[ \text{.674} \quad 169 \quad 1.98 \quad .83 \quad 20.2 \]

7. Motivate school employees to increase their physical activity.  
   \[ \text{.660} \quad 172 \quad 2.52 \quad .82 \quad 51.8 \]

8. Gain school administrators’ support for implementing employee wellness initiatives.  
   \[ \text{.653} \quad 172 \quad 2.49 \quad .92 \quad 47.1 \]

9. Organize interscholastic sports programs for students.  
   \[ \text{.648} \quad 174 \quad 2.47 \quad .91 \quad 46.0 \]

10. Organize wellness events for school employees.  
    \[ \text{.642} \quad 172 \quad 2.56 \quad .79 \quad 53.5 \]

11. Increase family/community use of school facilities to be physically active.  
    \[ \text{.612} \quad 169 \quad 2.48 \quad .83 \quad 49.1 \]

12. Increase the availability of school facilities for before-/after-school physical activity programs.  
    \[ \text{.561} \quad 174 \quad 2.58 \quad .81 \quad 62.6 \]

13. Help school administrators learn to promote students’ physical activity.  
    \[ \text{.561} \quad 172 \quad 2.83 \quad .77 \quad 69.7 \]

14. Organize physical activity events for students’ families (e.g., family fitness night).  
    \[ \text{.556} \quad 169 \quad 2.76 \quad .72 \quad 68.6 \]

15. Collaborate with community organizations to increase students’ use of community facilities to be physically active outside of school.  
    \[ \text{.546} \quad 169 \quad 2.72 \quad .91 \quad 63.3 \]

16. Motivate school employees to be physically active role models.  
    \[ \text{.545} \quad 172 \quad 2.60 \quad .86 \quad 56.4 \]

17. Educate parents’ about strategies to promote their children’s physical activity outside of school.  
    \[ \text{.497} \quad 169 \quad 2.92 \quad .69 \quad 79.9 \]

18. Use politicking skills with district/government officials to advocate for policies to increase students’ physical activity at school.  
    \[ \text{.462} \quad 169 \quad 2.38 \quad .92 \quad 47.9 \]

19. Organize school wide efforts to increase students’ physical activity.  
    \[ \text{.438} \quad 172 \quad 3.05 \quad .64 \quad 83.1 \]

20. Help classroom teachers learn to increase students’ physical activity in their classrooms.  
    \[ \text{.435} \quad 172 \quad 3.06 \quad .78 \quad 80.3 \]

21. Help classroom teachers learn to increase students’ physical activity at recess.  
    \[ \text{.421} \quad 172 \quad 2.94 \quad .83 \quad 73.8 \]

Total Variance Explained = 31.55%
### Effectiveness in Preparing Non-Majors for CSPAP Roles

1. Teach students active games they can play at recess. .997 168 2.80 1.22 73.2
2. Increase students’ physical activity at recess. .959 168 2.76 1.24 70.8
3. Lead physical activity breaks (e.g., “Energizers”) between academic lessons. .922 168 2.74 1.32 69.0
4. Integrate physical activity into academic lessons (e.g., math, science, language arts). .860 168 2.93 1.22 75.0
5. Draw on policy/research to advocate for students’ school-based physical activity. .771 168 2.67 1.16 67.8

Total Variance Explained = 8.58%
Mean Response Across Items = 2.78 ($SD = .15$)
$\alpha = .96$

### Attitude Toward Preparing Program Majors for Other CSPAP Roles

1. The health and wellness of other school employees. .817 168 2.89 .78 68.4
2. The involvement of other school employees in physical activity promotion. .804 168 2.99 .70 76.8
3. Physical activity promotion in academic (i.e., non-physical education) classrooms. .753 168 3.32 .70 88.6
4. Family/community involvement in physical activity. .685 168 3.23 .66 89.9
5. Physical activity promotion during recess/lunch/free periods. .676 168 3.27 .64 91.1

Total Variance Explained = 5.72%
Mean Response Across Items = 3.15 ($SD = .56$)
$\alpha = .90$

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Note: Given the research questions, responses for “Disagree” and “Strongly Disagree” were excluded from the analyses. Additionally, across all survey items, participants selected “Don’t Know” as a response option less than 1% of the time. Therefore, responses for “Don’t Know” were also excluded from the analysis.