

## **Why do University Students Enroll in Physical Activity Education Courses? Differential Affects of Required Versus Elective Institutional Policies**

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**Abstract:** *The aims of this study were to determine university students' reasons for enrolling in physical activity courses (PACs) at institutions with different course policy arrangements, and to determine whether those reasons were associated with students' motivation, competence, and weekly exercise METs. University students (N = 612) enrolled at two universities were recruited, one with a PAC requirement and one without. Participants completed questionnaires assessing their reasons for enrolling in PACs, motivation, competence, and weekly exercise METs. Reasons for enrolling differed by gender, with "to improve fitness associated with females and "to have fun" associated with males. Different types of motivation and physical activity levels were associated with female students' reasons for enrolling in PACs depending on whether the institution had an elective or required PAC policy. Gender and an institution's PAC policy appear to affect college and university students' reasons for enrolling in PACs.*

**Keywords:** *College/University Instructional Physical Activity Programs (C/UIPAP), exercise, higher education, graduation requirement, physical education, psychology*

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### **1. INTRODUCTION**

College and university students experience a significant transition as they move from adolescence to adulthood (Li, Cardinal, & Settersten, 2009). During this time, they may experience changing lifestyles and social roles (e.g., independent living apart from their parents and preparing to enter full-time employment) (Jekielek & Brown, 2005). With regard to physical activity behavior and motivation to be physically active, the transition seems to have a deleterious effect (Bray & Born, 2004; Ullrich-French, Cox, & Bumpus, 2013; Zick, Smith, Brown, Fan, & Kowaleski-Jones, 2007). In spite of the known mental and physical benefits associated with physical activity participation (Loprinzi, Lee, & Cardinal, 2015; USDHHS, 2008), college and university students' physical activity participation levels are relatively low (Caspersen, Pereira, & Curran, 2000; Kwan, Cairney, Faulkner, & Pullenayegum, 2012), with some evidence suggesting that nearly half of all college and university students in North America are insufficiently physically active (Irwin, 2004).

To counteract this trend, physical activity courses offered at the tertiary level can have a significant positive effect on promoting college and university students' physical activity participation and motivation following graduation. For example, Sparling and Snow (2002) found that physical activity patterns during the senior year of college held for 6 years after graduation. Studies regarding college alumni also suggest that those who have participated in a larger numbers of physical activity courses while in college have better exercise habits and more positive attitudes toward fitness than do those who took fewer physical activity courses 6 to 20 years post-graduation (Adams & Brynteson, 1992; Brynteson & Adams, 1993; Pearman et al., 1997). Clearly college and university physical activity courses can play an important and enduring role in promoting and maintaining college and university students' physical activity motivation and behaviors (Buckworth, 2001).

Considering that physical activity classes provide students with opportunities to maintain healthy, active lifestyles, it is important to periodically assess why students enroll in such classes. Previous studies have found that students participate in physical activity courses for a variety of reasons, such as

learning a new physical activity skill, having fun, improving their fitness level, earning academic credit, and engaging in regular physical activity (Hilderbrand & Johnson, 2001; Leenders, Sherman, & Ward, 2003). Gender differences have also been reported, with the main reasons for female students' enrolling being to improve their fitness levels, whereas male students' report having fun or enjoyment as their main reasons for enrolling (Kilpatrick, Hebert, & Bartholomew, 2005; Leenders et al., 2003; Weinfeldt & Visek, 2009).

Understanding the interplay between students' motivation for participation (e.g., intrinsic vs. extrinsic) and different physical activity coursework choices (e.g., a required vs. an elective) may also inform instructional practices. For example, Frederick and Ryan (1993) found that participants interested in sport-oriented physical activities had high intrinsic motivation (e.g., enjoyment and interest), whereas those in fitness-oriented activities had high body-related motivation. In a similar vein, Kilpatrick et al. (2005) suggested that intrinsic motivation (e.g., challenge and enjoyment) was related to college and university students' sport participation, whereas extrinsic motivation (e.g., appearance and weight management) was associated with fitness-enhancing exercise participation. These findings suggest that students' reasons for taking physical activity courses are associated with different types of motivation and course enrollment choices.

Another factor that might affect college and university students' physical activity course enrollment choices are institutional policies. For example, if a student who dislikes physical activity is required to take physical activity coursework to earn a degree, the student may participate in the physical activity class due to external stimuli or extrinsic motivation (Dunton, Cousineau, & Reynolds, 2010; Stephenson, 1994). By contrast, students under an elective physical activity course policy may have more autonomous motivation when taking part in physical activity classes (Hensley, 2000; Issue, 2000). Given a mixture of elective and required physical activity course policies across American colleges and universities (Cardinal, Sorensen, & Cardinal, 2012), there may be a previously unidentified commingling of students' reasons and motivation for enrolling in physical activity classes.

This study had two purposes. First, it sought to determine university students' primary reasons for enrolling in physical activity courses by gender and the governing physical activity course policy. Second, it sought to explore how students' different types of motivation, competence, and current physical activity behaviors predicted their reasons for enrolling in physical activity courses.

## **2. METHODS**

### **2.1. Participants and Setting**

A total of 612 university students (i.e., 443 females, 164 males, and 5 different identity; Mage = 20.85 years, SD = 4.56) were recruited for this study from two universities in the Pacific Northwest region of the United States. The two universities are both state-supported institutions with Carnegie classifications of "Research Universities (very high research activity)." They share many common characteristics, are located <1 hour driving distance apart, and they have nearly identical year-round weather. One institution is located at latitude 44°34'N and 123°16'W and the other is located at latitude 44°05'N and 123°04'W. One clear distinction between the two institutions is that one has a physical activity course graduation requirement and the other does not. For this study, 354 participants were following the required course policy arrangement and 258 were following the elective course policy arrangement.

### **2.2. Measures**

A total of 52 items were included in the online survey, which was divided into five sections: a) demographic variables, b) reasons for enrolling in physical activity education courses, c) students' motivation toward physical activity, d) students' perceived competence toward physical activity, and e) a 1-week recall of their past week's physical activity behavior.

### **2.3. Demographics**

Participants were asked to provide information about their age, gender, academic standing (i.e., year in school), height, weight, race, and the type of physical activity education course they were enrolled in. Given the large variety, courses were organized around six overarching groups using the same classification scheme that others have used (Barney, Pleban, Wilkinson, & Prusak, 2015; Hensley, 2000): dance (e.g., ballet, jazz, salsa), fitness (e.g., aerobics, conditioning, running), lifetime Sports

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(e.g., badminton, bowling, golf), mind-body (e.g., meditation, tai-chi, yoga), outdoor activities (e.g., fly fishing, rock climbing, skiing), and team sports (e.g., basketball, soccer, softball).

### **2.4. Reasons for Enrolling in Physical Activity Courses**

From a list of 17 possible reasons for enrolling in physical activity education courses, participants were asked to respond dichotomously (i.e., “Yes” or “No”) to each statement. The statements were obtained from previous studies (Leenders et al., 2003; Steinhart & Dishman, 1989). A sample item is, “I enrolled in this physical activity course because I want to learn a new activity”. Similar to Leenders et al. (2003), participants were also asked to designate one primary reason for their enrollment.

### **2.5. Students’ Motivation**

Students’ motivation was measured using the Behavioral Regulation in Exercise Questionnaire (BREQ-2) (Markland & Tobin, 2004). The BREQ-2 measures five different types of physical activity motivation (i.e., amotivation, external regulation, introjected regulation, identified regulation, and intrinsic motivation). A sample item for intrinsic motivation is, “I engage in physical activity because it is fun”. Response options were displayed using a Likert scale format ranging from 1 (i.e., “do not agree at all”) to 7 (i.e., “very strongly agree”).

### **2.6. Students’ Competence**

The perceived competence subscale of the Intrinsic Motivation Inventory (McAuley, Duncan, & Tammen, 1989) was used to measure participants’ perceived competence. A sample item is, “I think I am pretty good at physical activity.” Response options were displayed using a Likert scale format ranging from 1 (i.e., “do not agree at all”) to 7 (i.e., “very strongly agree”).

### **2.7. Physical Activity Behavior**

Students’ physical activity behavior was assessed using the Weekly Leisure Time Exercise Questionnaire (WLTEQ; Godin & Shephard, 1985). The WLTEQ contains three questions assessing the frequency of 15 minute or longer bouts of mild (e.g., easy walking), moderate (e.g., fast walking and easy cycling), or vigorous (e.g., swimming and running) physical activity during the previous 7 days. Weekly exercise METS (i.e., metabolic equivalent units) were calculated by multiplying the frequencies given for mild, moderate, and vigorous by 3, 5, and 9, respectively, and then summing the results.

### **2.8. Procedure**

All potential participants were asked to provide their informed consent prior to their involvement, and the authors’ Institutional Review Board (IRB) approved the study prior to any data being collected. Participation was voluntary and anonymous. The Director of each university’s Physical Education service program agreed to support the study and to distribute an online survey vis-à-vis a Uniform Resource Locator (URL) to the students enrolled in their various physical activity education classes 1-week prior to the start of fall term 2015. The on-line survey was developed using Qualtrics (Provo, UT, USA).

### **2.9. Data Analysis**

Of the 612 participants, the majority (i.e.,  $n = 519$ ; 85%) completed the online survey in its entirety. To understand the pattern of missing data (i.e., missing completely at random [MCAR]), Little’s Missing Completely at Random test was conducted. The results were not significant,  $\chi^2(65) = 72.59, p = .242$ , suggesting the data were missing at random. As such, the expectation maximization (EM) technique was used to address missing data.

As for main data analysis, descriptive statistics were used to summarize students’ reasons for enrolling in physical activity education courses by gender and physical activity education policy. Discriminant function analyses were employed to determine whether types of motivation, competence, and weekly exercise METs predicted students’ reasons for enrolling in physical activity education courses. In addition, we used 3 (gender: female vs. male vs. different identity) x 4 (academic standing: freshman vs. sophomore vs. junior vs. senior) Chi-square analysis to determine differences in types of physical activity course in which students enrolled. Data was analyzed using IBM Statistical Package for the Social Sciences 22 (SPSS, Armonk, NY, USA) software.

### 3. RESULTS

#### 3.1. Internal Consistency, Descriptive Statistics, and Correlation Matrix

As shown in Table 1, the psychological measurements used in the present study showed acceptable internal consistencies (i.e., Cronbach's alpha values ranging from .72 to .91), however the behavioral measure had lower internal consistency (i.e., Cronbach alpha = .62), which, given the nature of the three different activity intensities listed for the measure, is not entirely unexpected. Table 1 also provides a correlation matrix for the various measures employed in the study.

**Table 1.** Descriptive statistics, correlations, and reliability among variables ( $n = 612$ )

Variables	1	2	3	4	5	6	7	$\alpha$
1. AM	1.0							.819
2. ER	.25**	1.0						.724
3. INR	-.23**	.19**	1.0					.860
4. IDR	-.59**	-.22**	.35**	1.0				.773
5. IM	-.50**	-.28**	.16**	.71**	1.0			.909
6. COM	-.44**	-.20**	.12**	.60**	.66**	1.0		.896
7. PA	-.06	-.003	-.03	.16**	.13**	.08*	1.0	.625
<i>M</i>	1.51	2.52	4.7	6.02	5.85	5.41	46.57	
<i>SD</i>	.70	1.25	1.55	.88	1.04	1.19	38.90	

\*\*  $p < .01$  \*  $p < .05$

**Note.** AM = Amotivation; ER = Extrinsic Regulation; INR = Introject Regulation; IDR = Identified Regulation; IM = Intrinsic Motivation; Com = Competence; PA = Weekly exercise METs, *M* = Mean; *SD* = Standard Deviation;  $\alpha$  = Cronbach's alpha

#### 3.2. Reasons for Enrolling in Physical Activity Education Courses by Gender

The most frequent reasons for enrolling in physical activity courses overall were: (a) to improve fitness (15.2%), (b) to exercise regularly (15.2%), (c) to have fun (12.4%), (d) to learn a new activity (12.1%), and (e) to reduce stress level (11.4%). These top five reasons explained 66.3% of the students' reasons for enrolling in physical activity courses. For female students, the most frequently endorsed reasons for enrolling in physical activity courses were to exercise regularly (17.6%), followed by to improve fitness (15.6%), to reduce stress level (12.6%), to learn a new activity (12.4%), to stay in shape (9.5%), and to have fun (9.3%). For male students, the most frequently endorsed reasons for enrolling in physical activity courses were to have fun (21.3%), followed by to improve fitness (14%), to learn a new activity (11.6%), to stay in shape (10.4%), to exercise regularly (9.1%), and to improve skills (7.9%) and to reduce stress level (7.9%).

As for the top two reasons reported by the female participants, the direct discriminant function analyses were statistically significant for "to improve fitness", Wilks' Lambda = .949,  $\chi^2(7) = 22.63$ ,  $p < .01$  and for the reason "to exercise regularly", Wilks' Lambda = .962,  $\chi^2(7) = 16.97$ ,  $p < .05$ .

Predictors that contributed to group discrimination for the reason "to improve fitness" in the pooled female data were amotivation, Wilks' Lambda = .976,  $F(1, 440) = 10.75$ ,  $p < .01$ , intrinsic motivation, Wilks' Lambda = .985,  $F(1, 440) = 6.62$ ,  $p < .05$ , and weekly exercise METs, Wilks' Lambda = .990,  $F(1, 440) = 4.55$ ,  $p < .05$ . The structure coefficients (i.e., correlation between each predictor and the discrimination function) revealed that amotivation was the most important ( $r^2 = .46$ ) followed by intrinsic motivation ( $r^2 = .28$ ), and then identified regulation ( $r^2 = .19$ ). In terms of the reason "to exercise regularly", amotivation was the only predictor contributing to group discrimination, Wilks' Lambda = .976,  $F(1, 438) = 10.91$ ,  $p < .01$ .

The direct discriminant function analysis for male students' reason (i.e., "to have fun") was also statistically significant, Wilks' Lambda = .859,  $\chi^2(7) = 23.69$ ,  $p < .01$ . Intrinsic motivation in the pooled male data was the only predictor contributing to group discrimination, Wilks' Lambda = .925,  $F(1, 159) = 12.81$ ,  $p < .001$ .

#### 3.3. Reasons for Enrolling in Physical Activity Courses by Physical Activity Course Policy

The most frequent reasons given by female students for enrolling in physical activity courses at the institution with the required physical activity course policy were: (a) to learn a new activity (15.8%), to exercise regularly (15.4%), to have fun (13.3%), to reduce stress level (12.5%), and to improve fitness (11.3%), whereas at the institution with the elective physical activity course policy the most

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frequent reasons were to improve fitness (20.7%), to exercise regularly (20.2%), to reduce stress level (12.8%), to stay in shape (11.3%), and to learn a new activity (8.4%).

For female students, the two discriminant functional analyses yielded significant differences for “to improve fitness”, Wilks’ Lambda = .926,  $\chi^2(7) = 18.06$ ,  $p < .05$  under the required physical activity course policy, and Wilks’ Lambda = .883,  $\chi^2(7) = 24.41$ ,  $p < .01$  under the elective physical activity course policy. Different predictors contributed to group discrimination between the required and elective policies. While amotivation, Wilks’ Lambda = .960,  $F(1, 238) = 9.86$ ,  $p < .01$ , intrinsic motivation, Wilks’ Lambda = .961,  $F(1, 238) = 9.71$ ,  $p < .01$ , and identified regulation, Wilks’ Lambda = .982,  $F(1, 238) = 4.41$ ,  $p < .05$  were significant predictors under the required physical activity course policy for females, under the elective physical activity course policy the salient predictors were extrinsic regulation, Wilks’ Lambda = .977,  $F(1, 200) = 4.605$ ,  $p < .05$  and weekly exercise METs, Wilks’ Lambda = .911,  $F(1, 200) = 19.49$ ,  $p < .001$ . In terms of the reason “to exercise regularly”, the discriminant function analysis under the required physical activity course policy was not significant, whereas the analysis was statistically significant for the elective physical activity course policy, Wilks’ Lambda = .921,  $\chi^2(7) = 16.04$ ,  $p < .05$ . These data are shown in Table 2. The main reasons male students’ enrolled under the required physical activity course policy were to have fun (23.2%), to learn a new activity (11.6%), and to reduce stress level (10.7%), whereas for the males under the elective physical activity course policy the main reasons were to improve fitness (23.1%), to stay in shape (19.2%), and to have fun (17.3%). Under the required physical activity course policy the discriminant function analysis was significant, Wilks’ Lambda = .850,  $\chi^2(7) = 17.02$ ,  $p < .05$ , whereas under the elective physical activity course policy it was not, Wilks’ Lambda = .755,  $\chi^2(7) = 12.81$ ,  $p = .07$ .

**Table2.** Results of discriminant analyses for female students’ top reasons for enrolling in physical activity courses (PAE) by PAC policy

Predictors	The reason “to improve fitness”						The reason “to exercise regularly”					
	A required PAE			An elective PAE			A required PAE			An elective PAE		
	M (SD)	F(1, 238)	SM	M (SD)	F(1, 200)	SM	M (SD)	F(1, 237)	SM	M (SD)	F(1, 199)	SM
Amotivation	1.56 (.77)	9.86**	.72	1.46 (.63)	.002	-.01	1.56 (.77)	9.49*	.87	1.45 (.61)	.14	.09
Extrinsic regulation	2.60 (1.29)	.04	.05	2.57 (1.31)	4.61*	.43	2.59 (1.25)	3.79	.54	2.56 (1.32)	.05	-.06
Introjected regulation	4.76 (1.49)	.38	-.14	4.85 (1.54)	.074	-.05	4.76 (1.49)	1.04	-.29	4.85 (1.55)	.01	-.03
Identified regulation	5.96 (.99)	4.41*	-.48	5.98 (.84)	.519	.14	5.96 (.99)	6.29*	-.70	5.98 (.84)	2.13	.34
Intrinsic motivation	5.75 (1.10)	9.71**	-.71	5.74 (1.03)	.464	.13	5.75 (1.11)	5.86*	-.68	5.75 (1.03)	1.33	.28
Competence	5.23 (1.24)	1.08	-.24	5.29 (1.20)	.348	.12	5.23 (1.24)	3.60	-.53	5.29 (1.20)	.27	.13
PA	47.19 (34.0)	.01	.02	49.32 (58.12)	19.49***	.86	47.32 (34.1)	.06	-.07	49.37 (58.26)	12.92***	.87
Eigenvalue		.08			.132			.053			.086	
Canonical correlation		.272			.342			.225			.281	
Wilk’s Lambda		.926*			.883*			.949			.921*	

\*\*\* $p < .001$  \*\* $p < .01$  \* $p < .05$

*Note.* M = Mean; SD = Standard deviation; SM = Structure matrix; PA = Weekly exercise METs; PAE = Physical activity education

### 3.4.Types of Physical Activity Course in which Students Enrolled

The most frequent type of physical activity course for female students was fitness (43.9%), followed by mind-body (33.8%), outdoor (11%), dance (11%), team sport (9.8%), and lifetime (6.8%). As for male students, fitness (32.9%) and team sport (26.8%) were the most preferred types of physical activity courses, followed by mind body (12.8%), lifetime (11.1%), outdoor (11%), and dance (6.7%). Figures 1 and 2 show the types of physical activity courses that the female and male participants were enrolled on the basis of their academic standing.

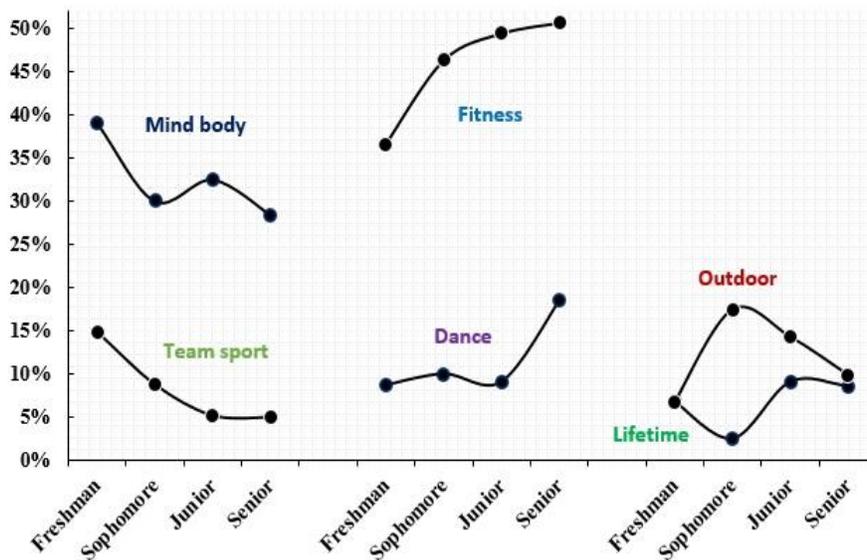


Figure1. Percentage of types of physical activity education courses in which female students enrolled

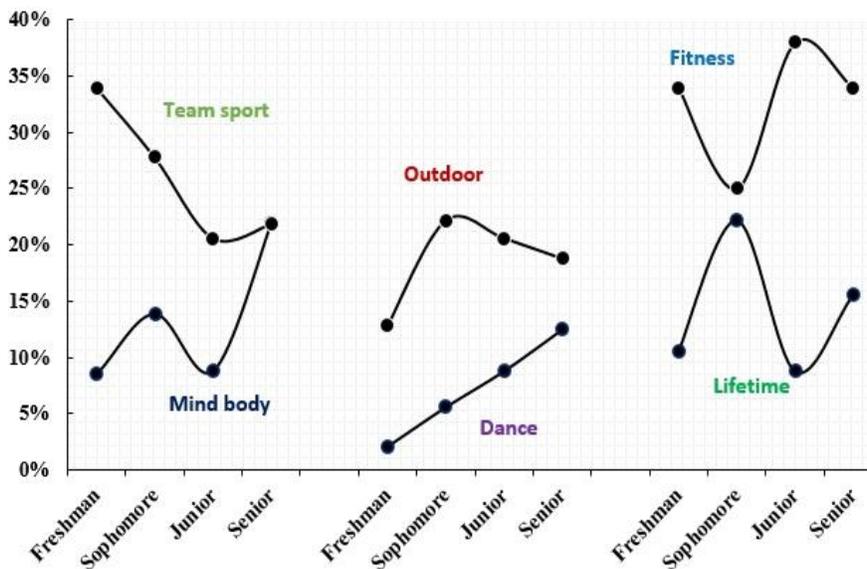


Figure2. Percentage of types of physical activity education courses in which male students enrolled

Female students enrollment in team sports at the institution with the physical activity course was relatively low (i.e., 84.4% not enrolled vs.15.6% enrolled), with enrollment associated with academic standing (i.e., freshman higher than sophomores, juniors, and seniors;  $\chi^2(3, [N = 211]) = 9.089, p < .05$ , contingency coefficient = .20). Female students enrollment in outdoor physical activities at the institution with the physical activity requirement was relatively low (i.e., 89.1% not enrolled vs. 10.9 %enrolled), with enrollment associated with academic standing (i.e., sophomores and juniors higher than freshman and seniors;  $\chi^2(3, [N = 211]) = 9.869, p < .05$ , contingency coefficient = .20).

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Male students enrollment in outdoor physical activities at the institution without the physical activity course requirement was relatively low (i.e., 79.6% not enrolled vs. 20.4% enrolled), with enrollment associated with academic standing (i.e., juniors and seniors higher than freshman and sophomores;  $\chi^2(3, [N = 49]) = 11.049, p < .05$ , contingency coefficient = .43).

### 4. DISCUSSIONS

The aims of this study were to determine university students' reasons for enrolling in physical activity courses, how those reasons are associated with students' motivation, competence, and weekly exercise METs, and whether differences existed between female and male students and those enrolled at an institution that had a physical activity course graduation requirement and one that did not. From our findings, university students enroll in physical activity courses mainly to improve their fitness levels and to obtain regular exercise followed by having fun, learning a new activity, and reducing their stress level. These results are consistent with the work of others (Leenders et al., 2003; Weinfeldt & Visek, 2009). However, the top two reasons reported by Leenders et al. (2003) were to learn a new skill and to have fun, whereas the top two reasons in the present study focused on improving or maintaining fitness through regular exercise participation. While the basis of the observed differences are not clear (e.g., institutional, regional, societal, temporal), it does suggest that periodic assessments have value in terms of understanding students' interests and motives for participating in physical activity education courses.

Gender differences were also observed in the present study. While female students enrolled in physical activity classes to improve their fitness levels and to exercise regularly, having fun was the most important reason reported by the males. This is consistent with previous studies reporting that female and male students have different reasons and motives for participating in physical activity courses (Kilpatrick et al., 2005; Leenders et al., 2003). Furthermore, this finding suggests that physical education service programs (a.k.a., basic instruction programs, college/university instructional physical activity programs [C/UIPAP]) may consider offering physical activity course curricula that simultaneously incorporate fun and fitness components. For example, strength and conditioning classes can be offered that combine regimented exercises with fun activities such as Tae Bo<sup>®</sup> or Zumba<sup>®</sup>.

On the basis of the primary reasons female and male students reported enrolling in physical activity courses, differences were also observed. For the female students' amotivation, intrinsic motivation, and weekly exercise METs all were significant predictors, whereas for the male students intrinsic motivation was the only predictor. This finding suggests that female students' participation motivation in physical activity courses is more complex than that of male students. This is not the first study to report that female's physical activity influences and motives for participation in physical activity might be more complex than that of males. For example, Readdy, Watkins, and Cardinal (2011) found that a larger constellation of sociocultural factors influence females' in comparison to males' body image-related, extreme physical activity behaviors.

Considering the multi-dimensional structure of motivational goals (e.g., affective, behavioral, cognitive) (Dowson & McInerney, 2003; Elliot, 1999; Pintrich, 2000), the complexity of female students motivation when enrolling in physical activity courses is theoretically consistent. That is, the female students may take physical activity courses to improve their fitness because they want to maintain or improve their physical activity levels (i.e., behavioral component [weekly exercise METs]), like to engage in physical activity (i.e., affective component [intrinsic motivation]), and gain benefits from engaging in physical activity classes (i.e., cognitive component [amotivation]). By contrast, male students' reasons and motivation are more straightforward when seeking out physical activity courses. Having fun is the salient reason, and intrinsic motivation is the key predictor variable.

Overall, students' reasons for enrolling in physical activity courses were similar across the two institutions representing different physical activity course policies (i.e., required vs. elective). Interestingly, however, a higher percentage of female students enrolled at the institution with the requirement reported, "having fun" and "learning a new skill" as their top reasons (i.e., intrinsic regulatory reasons). On the other hand, among the female students enrolled at the institution without

the requirement the most salient reasons were “improve fitness” and “exercise regularly” (i.e., extrinsic regulatory reasons). These findings suggest that college and university female students’ reasons for enrolling in physical activity courses may be affected by an institution’s physical activity course policy.

These findings were further reinforced by the second discriminant functional analyses, which revealed that lower amotivation, high intrinsic motivation, and identified regulation were significant predictors of the reason “to improve fitness” under the required physical activity course policy, whereas important predictors for students following the elective physical activity course policy were higher extrinsic regulation and weekly exercise METs. In addition, weekly exercise METs was the only predictor for the reason “to exercise regularly” under an elective physical activity course policy. This finding indicates that female students enrolling in physical activity courses under an elective physical education policy would already be engaging in physical activity. By contrast, having self-determined forms of motivation (e.g., intrinsic motivation and identified regulation) may be more important to female students enrolled in required physical activity courses aimed at improving their fitness. These findings are at least partially contradictory with previous points of view (Hensley, 2000; Issue, 2009), which have suggested that self-determined forms of motivation might be more closely related to students following an elective physical activity course policy approach. This contrary finding suggests a need to further study how physical activity course policies interact with female students’ motivation and physical activity in terms of enrolling in physical activity courses.

For the male students, the reason (i.e., “having fun”) and predictor (i.e., intrinsic motivation) were invariant between the required and elective physical activity education programs. This finding indicates that male students’ engagement in physical activity courses may not be influenced by the physical activity course policy if they have high intrinsic motivation toward physical activity. Furthermore, they may try to seek out intrinsic motivation through physical activity classes that can allow them to experience fun and/or enjoyment. Consequently, male students’ reasons for enrollment and motivation appear to be stable regardless of an institution’s physical activity course policy.

As for types of physical activity courses in which students enrolled, fitness was the most frequent type of physical activity course for both female and male students. This may be related to the students’ top reason (i.e., “to improve fitness levels”) for enrollment. Furthermore, gender differences in types of physical activity courses were observed (e.g., mind body for females vs. team sport for males). This finding may also support gender differences in students’ reasons for enrolling in physical activity courses (e.g., “to exercise regularly” for women vs. “to have fun” for men).

We also found that while for female students team sports enrollment tended to decrease across grade levels (i.e., freshman > senior), outdoor activities enrollment tended to increase as academic standing moved toward the upper grade levels under the required physical activity course policy. Given the similar results for outdoor activities among male students without a physical activity course requirement, these findings imply that outdoor activities attract more upper level students, whereas freshman students were more likely to enroll in team sports. This trend suggests that students’ enrollment pattern for some types of physical activity courses may be different depending on academic standing. There is a need to further explore this possibility in future research, as it might affect curricular offerings.

This study has limitations. First, the data was cross-sectional and cannot be used to make causal inferences. Second, we recruited participants based on convenience. As such the results should not be interpreted to be representative of the entire American higher education system. Finally, since the data were derived from self-report, factors such as item interpretation, recall, and social desirability may have affected responses in an undetermined manner.

In conclusion, the results of this study suggest that college and university students enroll in physical activity courses mainly to improve their fitness and to exercise regularly. Gender and an institution’s physical activity education policy appear to affect this with female and male students expressing different needs (i.e., improving fitness and exercise levels for females and having fun for males). A larger number of factors also appear to be associated with female’s versus male’s reasons for enrolling (i.e., intrinsic motivation, weekly exercise METs, and amotivation versus intrinsic motivation). Female students also had different predictors in terms of their reason for enrollment based on physical activity education policy. Theoretically, these findings suggest that motivation is multifaceted and influenced by policy, context, and personal factors. Future research should focus on determining how these policy, context, and personal factors interact and influence students’ participation in physical activity courses.

## **5. CONCLUSION**

Understanding why college and university students' do or do not enroll in physical activity education courses at the tertiary level has been a long-standing topic of interest to those in kinesiology. Not only are periodic assessments necessary to understand secular trends, assessments are also necessary to understand different policy arrangements for the delivery of these courses (i.e., elective vs. required), as this may affect students' self-determined physical activity behavior. Because of observed declines in physical activity education requirements at the tertiary level in the United States (Cardinal et al., 2012), the now predominant elective policy arrangement appears to be limiting the potential reach and societal value of such courses (Cardinal, in press). This study also suggests that it shifts the focus, especially for women enrolled in these courses, toward extrinsic, personal benefits (i.e., improving and maintaining fitness, rather than learning a skill and having fun, as previous studies found). University students' reasons for enrolling in physical activity courses appears to be influenced by several factor including the university physical activity course policy, types of physical activity courses, grade level, and personal factors. Those who administer physical activity course programs at the tertiary level may use the results of this study to help in the design and delivery of the most relevant curriculum possible, as well as in developing and delivering instructor training programs for those who teach in their programs. Additionally, the results of this study may assist those who are trying to justify a physical activity education graduation requirement at the tertiary level.

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**Why do University Students Enroll in Physical Activity Education Courses? Differential Affects of Required Versus Elective Institutional Policies**

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