

## Exploring the Post-COVID Reasons for IPAPs Student Enrollment

Chris Rash, MS  
Indiana University

Mark Urtel, EdD  
Indiana University

### ABSTRACT

**Background:** Many college students accumulate low levels of physical activity and even more so since the COVID-19 pandemic. Instructional physical activity programs (IPAPs) are a viable option for students to increase physical activity levels, but the reasons students take these courses have not been explored since the pandemic.

**Aim:** This pilot study explores the reasons students choose to take courses in an elective IPAP program.

**Methods:** This study employed a survey-based approach to investigate the reasons behind college students' enrollment in IPAPs following the COVID-19 pandemic. The survey ( $n = 85$ ) included demographic information, reasons for taking a course, courses students would have interest in taking, and preferred length and delivery mode.

**Results:** Findings revealed that the top three reasons for females to sign up for an activity course were: (1) *wanted to learn a new activity*, (2) *to exercise regularly*, and (3) *to improve fitness*. For males, the top three reasons were: (1) *wanted to have fun*, (2) *to improve skills of the activity*, and (3) *to exercise regularly*.

**Conclusions:** Results from this study show high alignment and slight differences with similar research done prior to the COVID-19 pandemic. Overall, students appear to enjoy fun, fitness-based, and novel course options in IPAP programs.

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

### INTRODUCTION

Research has suggested that physical activity offers many benefits to overall health, including longevity, prevention of major diseases, and improved mental health (Sallis & Owen, 1999). The U.S Department of Health and Human Services Physical Activity Guidelines for Americans suggests that adults should participate in at least 150 minutes moderate-intensity or 75 minutes of vigorous aerobic physical activity and muscle-strengthening activities involving all major muscle groups on two or more days per week (U.S. Department of Health and Human Services, 2018). Research indicates that a significant proportion of college students fail to meet established physical activity guidelines



(Bailey et al., 2020). Keating et al. (2005) reported that 40–50% of college students are physically inactive. The COVID-19 pandemic further exacerbated these already low levels of physical activity among this population (Bertrand et al., 2021; Osipov et al., 2021; Wilson et al., 2021).

In this way, it is important for colleges and universities to consider options to promote more physical activity on campus. A viable option for students to accumulate physical activity is through college and university instructional physical activity programs (IPAPs). IPAPs are credit-bearing courses focused on a variety of physical activity and health related behaviors (Strand et al., 2010). These programs have different characteristics at different colleges and universities, such as the courses offered, the types of instructors, and the instructional mode. Additionally, some programs are required for all students while others are electives. Kim and Cardinal (2019) suggest that a required program may be important for increasing activity in less motivated students. Although this is a valid claim, it may not be possible to require students to take physical activity courses at certain colleges and university due to curriculum, institutional philosophy, and budget related considerations.

The purpose of this study was to explore the reasons college and university students take a physical activity course in an elective program, particularly in the post-COVID era.

## Literature Review

IPAPs were first introduced at Amherst College in 1860 when the President observed students' decrease in physical health, which he attributed to decreased labor demands and increased academic demands of the mid-nineteenth century. From then, IPAPs grew across the United States until their peak in the 1920s and 1930s. At that time, it was estimated that 97% of American colleges and universities required some form of physical education courses. Today, it is estimated that only 40% of American colleges and universities require physical education courses (Cardinal & Casebolt, 2022). Kinesiology programs have shifted their focus from physical education and physical activity to pathway degrees for careers in healthcare (i.e., physical therapy, occupational therapy, etc.) (Cardinal., 2020). This has led to a reduction in resources for IPAPs and resulted in many canceled programs. Some programs have chosen to offer only elective physical activity courses.

Although there have been large reductions in these programs, there has been some emphasis on increased requirements for physical activity in college students in recent years (Cardinal et al., 2022). This increased emphasis is aimed at tackling many of the challenges students face with their physical and mental health. For many students, the college environment is not conducive to a healthy lifestyle (Bailey et al., 2020). According to the 2023 National College Health Assessment (American College Health Association, 2023), only 41% of college students met the guidelines for resistance training and aerobic activity in the fall of 2023. Many students gain weight during their college years. Fedewa et al. (2014) found that students gained 3.5-6.5 pounds on average during their time in college. Student mental health is also suffering. Depression, anxiety, stress, and other mental health conditions were at an all-time high among college students prior to the COVID-19 pandemic (Pedrelli et al., 2015) and have continued to grow during and after (Wilson, et al., 2021). Therefore, It is important for colleges and universities to provide resources to support a healthy lifestyle for students.

## Benefits of IPAPs

It is well known that increases in physical activity has several benefits to physical health, including disease prevention and weight management (Sallis & Owen, 1999; U.S. Department of Health and Human Services, 2018). Research has shown participation in physical activity courses leads to improvements in health-related knowledge and behaviors, and attitudes toward physical activity participation after the course (Brynteson & Adams, 1993 Casebolt et al., 2017). Increasing enrollment in physical activity courses may have an impact on an individual's lifelong physical activity engagement.

Engagement in physical activity has been shown to have positive effects on mental health, including the reduction of stress, anxiety, depression, and other mental health outcomes (Berstein & McNally, 2018). College students said physical activity contributed to their quality of life (Gill et al., 2013). Research demonstrated that an IPAP course focused on wellness had a positive effect on the 12 dimensions of wellness throughout a semester (Lothes et al., 2020; Lothes & Kantor, 2021).

Engagement in physical activity has also been shown to have positive effects on the brain and overall academic performance (Casebolt et al., 2017). In a systematic review, data suggested in-school physical activity did not negatively affect academic performance even if time was taken away from other subjects (Trudeau & Shephard, 2008). In another study, students' ratings of their overall health was correlated with their rating of overall academic performance (El Ansari & Stock, 2010). Much of the research on physical activity and academic performance has been focused on aerobic activity, but accumulation of strength training activity has also shown a benefit. Keating et al. (2013) found a positive relationship between number of strength training sessions and GPA in college students. The results from this work suggests a need for a variety of physical activity courses on college campuses.

## Reasons for taking IPAP'S courses

Prior to COVID-19, there was general consensus on the reasons college and university students enrolled in elective physical activity courses. Early research from Hildebrand and Johnson (2001) indicated that regardless of gender, the primary reasons students enrolled in an IPAP were that they enjoyed the activity and had interest in the activity. When looking at gender independently, they found that males enrolled due to (a) the activity being exciting, (b) they needed the credit, and (c) they wanted to boost their GPA. Whereas females enrolled due to (a) improvement of fitness, (b) having a scheduled time to workout, and (c) it was good for their health (Hildebrand & Johnson, 2001). Leenders et al. (2003) found that for females, the top three reasons for enrolling in an IPAP were to (1) learn a new activity, (2) have fun, and (3) exercise regularly. Conversely, they found that males enrolled in an IPAP to (1) have fun, (2) learn a new activity, and (3) improve skills.

More than a decade later, both Lackman et al. (2015) and Cardinal and Kim (2017) revisited this line of research, with somewhat differing frameworks and findings. Overall, Lackman et al. (2015) found that students enrolled in an IPAP to earn credit / fulfill graduation requirement, whereas Cardinal et al. (2017) posited the key reason females and males enrolled in IPAP courses was to improve fitness. Yet, this initial finding was under the tenant of an optional and elective IPAP program. When taking into account any gender-based differences, Lackman et al. (2015) found that females enrolled in an IPAP for two main reasons, (1) to learn a new activity and (2) get structured exercise time. Alternately, males enrolled to engage in a competitive activity. On the other hand, Cardinal and Kim (2017) aligned

closely with the earlier findings from Leenders et al. (2003), and found gender-based differences in the reasons students selected an IPAP. In particular, females enrolled to learn a new activity and males enrolled to have fun. Admittedly, this latter finding was factoring in a required IPAP at an institute. In summary, time has consistently revealed gender-based differences in why students enroll in an IPAP. Certainly, institutional climate (elective vs. required) plays a role, as do varying student demographic, academic, and health characteristics as suggested in the prior research.

### **Elective vs. Required IPAP's**

It has been debated whether physical activity courses should be elective or a requirement to graduate (Mak & Cheung, 2018). In a university with a physical activity requirement, a higher percentage of the student body will be enrolled in physical activity courses than at a university with an elective program. However, the motivation of the students taking those classes will differ. Many students enrolled in a required physical activity course often have lower motivation than those enrolled in an elective course. This may be beneficial to get more students who are unmotivated to be physically active involved (Kim & Cardinal, 2019). This presents a challenge for universities with elective physical activity programs. If students that are currently involved in physical activity courses have more motivation to be physically active, it is important to gain a better understanding of why they enroll in these courses to consider strategies to recruit additional students.

## **METHODS**

This study employed a survey-based approach to investigate the reasons behind college students' enrollment in IPAPs following the COVID-19 pandemic. This research protocol was classified as exempt by the Institutional Review Board as the study posed minimal risk to participants and is a common educational practice. The 11-item survey was a modified version of the Leenders et al. (2003) survey. While we kept the demographic information items and the reasons for current participation section, we eliminated the academic and health characteristics section and added an ideal IPAP characteristics section. There was a two-fold reason for these modifications. First, we wanted to keep the survey as short as possible to enhance response rates, and second, we anticipate renovating our IPAP in the near future and wanted to ensure we prioritized student voices in making decisions.

There were five demographic variables on the survey: (1) gender, (2) ethnicity, (3) year in school, (4) age, and (5) major. Further, 16 options were offered for reasons they enrolled in an IPAP currently, with an immediate follow-up question forcing them to identify a single primary reason from among the above selected items. Finally, a set of questions were offered inquiring about what an ideal IPAP would contain. Specifically, a list of 19 possible course topics (a mix of team sport, individual sport, individual fitness, and outdoor recreation activities) followed by items reflecting time of day, day of week, length of course, and delivery mode.

A convenience sampling method was utilized, targeting students currently enrolled in a fully elective IPAP at a large metropolitan university. Participants were invited to complete the survey via a general email invitation, which included a link to an online survey. The email was sent to 231 students who were enrolled in a class that was active in the 16-week delivery mode of the semester as opposed to a course that had already completed or had not yet started (i.e., first 8-week, second 8-week, last 3 week, etc.). As such, 85 students completed the survey equating to a 36.7%

completion rate. After data collection, responses were reviewed and uploaded to SPSS v29.0 for descriptive statistical analysis. This methodology provides a clear framework for the initial exploration of the reasons why college and university students take elective physical activity courses in the post-COVID era.

## RESULTS

Table 1 provides detailed respondent demographic information. The results of the survey revealed meaningful information regarding the reasons why college and university students enroll in IPAPs. Notably, the top reason for enrolling in an elective physical activity course for this project was to learn a new activity ( $n = 32$ , 38%). While this reason does not support the suggestions by Hildebrand et al. (2001) it does resonate in part or in full with prior research (Cardinal et al., 2017; Lackman et al., 2015; Leenders et al., 2003). Moreover, this project also found gender-based differences. Most females prioritized the single key reason they took an elective physical activity class as they *wanted to learn a new activity* ( $n = 25$ , 39%). Yet, for males  $n = 7$  (37%) revealed that they *wanted to have fun* as the main driver in enrolling in an elective physical activity class. Again, there is partial alignment with prior research (Cardinal et al., 2017; Lackman et al., 2015), but also nuanced differences. Further analysis in this project indicated the next two top reasons for females enrolling in an IPAP course were *to exercise regularly* ( $n = 15$ , 23%) and *to improve fitness* ( $n = 11$ , 17%). For males, the next two top reasons were to *improve skills of the activity* ( $n = 4$ , 21%) and *to exercise regularly* ( $n = 3$ , 16%).

**Table 1**

*Demographics of Survey Respondents*

Characteristic	n	%
<b>Gender</b>		
Female	64	75.3
Male	19	22.4
Prefer not to answer	2	2.4
<b>Ethnicity</b>		
White	42	49.4
Asian	10	11.8
Hispanic or Latino	15	17.6
Black or African American	14	16.5
Other, please specify	2	2.4
Prefer not to answer	2	2.4
<b>Year in School</b>		
Freshman	13	15.3
Sophomore	16	18.8
Junior	17	20.0
Senior	35	41.2
Graduate Student	4	4.7

*Note.* n = number of respondents; % = percentage of respondents.

It is worthwhile to mention that the reason of *need the credit/boost GPA*, achieved less than 3% of responses on why a student enrolls in an IPAP course, regardless of gender. This is in slight contrast to prior work (Hildebrand et al., 2001; Lackman et al., 2015). Overall, the findings from this survey shows high alignment and slight contrast to the earlier work by Hildebrand and Johnson (2001), Leenders et al. (2003), Lackman et al., (2015), and Cardinal and Kim (2017), and it accomplished the primary purpose of our pilot study.

## DISCUSSION

The results of our study provide an initial and informative perspective directly from students in the post-COVID era on the reasons why they enroll in an IPAP. Refreshingly, some of the key reasons are in support of the findings pre-COVID and suggests that IPAPs have stood the test of time with students finding high value in these programs. Unsurprisingly, depending on the type of IPAP (elective or required), there are slight gender-based differences in the reasons students enroll in an IPAP. Regardless, those that administrate and coordinate these programs can calibrate their current practices using the student perspective within their own particular institutional climate and landscape to continue building effective and sustainable IPAPs. Additionally, these insights may provide motivation to continue to advocate for IPAPs, and at the same time consider potential strategies and lines of thinking in the continued evolution of IPAPs. Knowing there are many variables to consider when evaluating an IPAP, our pilot work reaffirms that students see elective courses as a value add in their academic journey. Cardinal and Kim (2017) summated that offering fun and fitness within an IPAP seems ideal. After reviewing our post-COVID findings, we would add that offering fun, fitness-based, and novel course offerings within an IPAP would be the best practice.

Of course, this project is not without limitation. The relatively small sample size limited more refined statistical analyses. Additionally, our convenience sample may have led to a selection bias of the respondents. As such, future research should focus on longitudinal studies to better understand the long-term reasons college and university students enroll in IPAPs. Additionally, this would also aid the ability to fully factor in more diverse student demographics into this type of analysis.

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Address author correspondence to:  
Chris Rash, MS  
[crrash@iu.edu](mailto:crrash@iu.edu)



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