

THE STATUS OF PHYSICAL EDUCATION IN COLORADO'S COLLEGES AND UNIVERSITIES

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Heumann K and Murray S. Physical education once was a cornerstone to higher education, with some 97 percent of institutions requiring it in their respective curricula. Over the twentieth century, that percentage held steady with some 84-87 percent of institutions requiring physical education well into the late 1960s. During the next four decades, the number of institutions requiring physical education dropped steadily, to where some 39.5 percent of institutions of higher education were requiring it. However, the data from those studies came from surveys and thus had limitations. The purpose of this study was to determine the status of physical education in Colorado's colleges and universities by examining the specific requirements of each institution to get as detailed and as accurate results as possible. The results indicated that only 22 percent of four-year institutions and 7 percent of two-year schools, 15.6 percent overall, require physical education in their curricula for graduation. On a positive note, however, some 85 percent of Colorado's colleges and universities offer some type of physical education course for credit. We are hopeful that this study can serve as a model for the Western Society of Kinesiology and Wellness's membership to gather similar data for all states within its region. Ultimately, perhaps national data such as this can be collected and published.

Key Words: basic instruction programs, service programs, activity programs

INTRODUCTION

Physical education's history in academe dates back to the mid 1800s. Being over 150 years old, the history encompasses the origin and later development of the discipline as both a profession and a legitimate field of academic study. The value of physical education should be a given, especially with the considerable bulk of research indicating that physical activity is a *sine quo non* for sound health (CDC, n.d.). This idea is best described thus:

It would now appear to be established beyond any reasonable doubt, and widely accepted across societies, that regular participation in physical activity is an essential component of a healthy lifestyle (Haerens, Kirk, Cardon, & De Bourdeaudhuij, 2011, p. 321).

In addition to the plethora of research studies indicating that physical activity is necessary for robust

health, required physical education, especially on the collegiate level, has been shown to positively affect not only the knowledge and attitudes of alumni but their lifelong behaviors as well (Pearman III et al., 1997) – the true *raison d'être* of physical education. Furthermore, college and university health and physical education courses have been shown, repeatedly, to positively affect the health behaviors of students (Quartiroli & Maeda, 2016), and the students themselves want and expect colleges and universities to offer such courses for “physical, mental, social, and academic reasons” (Lackman, Smith, & McNeill, 2015, p. 7). Even with such positive results, physical education's hold in higher education is tentative, at best.

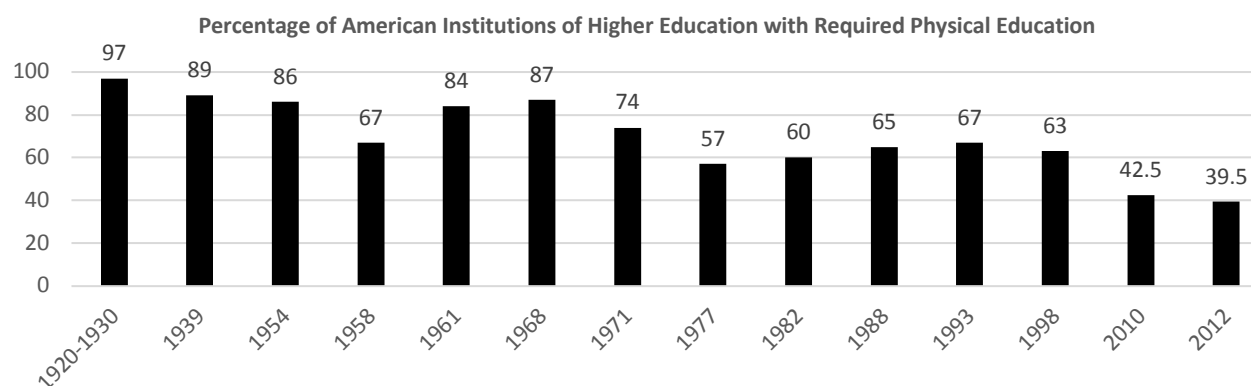
One area of concern with physical education is the ongoing demise of physical education service programs throughout American colleges and

universities. Service programs, also known as basic instruction programs or activity programs, were once plentiful in higher education since the first such program was founded at Amherst College in Massachusetts in 1861 by the venerable Dr. Edward Hitchcock, Jr. (Allen, 1869). Other prestigious institutions (e.g., Harvard, Wellesley) added similar programs (Cardinal, Sorensen, & Cardinal, 2012), and by the 1930s, some 97 percent of American institutions of higher education not only offered physical education courses, but it was a required component in their respective curricula (McCristal & Miller, 1939).

The status of physical education service programs (see Figure 1) was investigated numerous times on the national level throughout the twentieth century and into the twenty-first century (Boroviak, 1989; Cardinal et al., 2012; Cordts & Shaw, 1960; Hensley, 2000; Hunsiker, 1954; Miller, Dowell, & Pender, 1989; Oxendine, 1961, 1969, 1972; Oxendine & Roberts, 1978; Strand, Egeberg, & Mozumdar, 2010; Trimble & Hensley, 1984, 1990). These studies

showed that physical education remained a requirement generally at 84 to 87 percent of American institutions of higher education up through the late 1960s, with one exception; but, over the next three decades the percentage of institutions requiring physical education dropped to 63 percent (Hensley, 2000). In 2010, Strand et al. found that the percentage of institutions offering physical education declined to the low forties, an alarming number considering the national emphasis on health and wellness, particularly health care and its associated costs, during that time. Lastly, Cardinal et al. (2012) reported an all-time low of 39.5 percent of institutions of American higher education having a physical education requirement. Care must be taken with respect to these studies, however, because the researchers were using self-reported data from surveys, often with modest response rates, from randomly selected samples. Nonetheless, the numbers are staggering and highly problematic for the discipline, and the overall trend definitely is disturbing.

Figure 1. The percentage of American institutions of higher education requiring physical education from 1920 to 2012. Adapted from Cardinal, B.J., Sorensen, S.D., & Cardinal, M.K. (2012). Historical perspective and current status of the physical education graduation requirement at American 4-year and colleges and universities. *Research Quarterly for Exercise and Sport*, 83(4), 503-512. N.B., the methodologies for the studies referenced differ markedly and have limitations.



In light of these studies, we were interested in finding precise data on the prevalence of physical education service programs in academe today. Ultimately, a state-by-state process needs to occur, but we decided to investigate the status of physical education in the state of Colorado to serve as a model for later studies.

A previous study (Tomaino, Murray, & Yeager, 2001) had been conducted on Colorado's institutions of higher education, and we sought to replicate that study to see what changes had occurred in the last two decades.

METHODS

Several changes have occurred in the state of Colorado with respect to its institutions of higher education since the Tomaino et al. (2001) article was published. The governing bodies of the universities and colleges have undergone significant changes; some schools have been renamed; former two-year institutions now grant baccalaureate degrees, and others no longer are in existence. We took the previous listing of schools, verified if the institutions were still operating, and proceeded to mimic the methods of Tomaino et al. (2001). The methods included searching the internet sites of each college or university to examine the official catalogs (2018-2019) and the listed graduation requirements for students to earn an associates or baccalaureate degree. The course listings were examined as well to

search for elective courses. We used the same operational definition as Tomaino et al. (2001) for physical education: "Physical education was considered any activity or academic course pertaining to health, wellness, sports, or physical activity. For the course to be considered 'required,' it had to be listed by the institution as a requirement for graduation. If not, it was considered an elective" (Tomaino et al., 2001, p. 10). Data analysis was conducted by determining the current number of four-year and two-year colleges and universities. After reviewing the catalogs, the total number of programs that required these courses also was calculated. The percentage was then calculated by reporting the total number required out of the total number of institutions at that level.

Table 1. Requirements for physical education in Colorado's four-year colleges and universities.

Institution	Required	Credit-hours	Types of Courses
Adams State University	No*	--	Activity courses
Colorado Christian University	No	--	Intro to Nutrition
Colorado College	No	--	Intro to Human Nutrition
Colorado Mountain College	Yes		Wellness; Activity courses
Colorado School of Mines	Yes	2	Activity courses (4 at 0.5 credits)
Colorado State University	No*	--	Activity courses; Health and Wellness
Fort Lewis College	No*	--	Fitness/Wellness; courses for adventure education (e.g., Paddling)
Colorado Mesa University	Yes	2 [#]	Health and Wellness (1); activity courses (1); [#] two activity courses are required for Kinesiology majors
Metropolitan State University of Denver	No*	--	Activity courses
Regis University	No	--	--
United States Air Force Academy	Yes	10	Activity courses
University of Colorado, Boulder	No	--	Dance courses are offered
University of Colorado, Colorado Springs	No	--	Personal Fitness & Wellness part of Explore (Gen Ed)
University of Colorado, Denver	No	--	Drugs, Health, and Wellness course
University of Denver	No	--	--
University of Northern Colorado	No	--	Activity courses, dance courses
Colorado State University – Pueblo	No*	--	Personal Health; activity courses
Western Colorado University	No*	--	Activity courses

*denotes possible courses offered as electives or within a major or general education area

RESULTS

The requirements of physical education in Colorado's colleges and universities are presented in Tables 1 and 2. A little over 22 percent of four-year institutions and 7 percent of two-year schools require physical education in their curricula for some degree plans.

Overall, 15.6 percent of the institutions of higher education require physical education as a graduation requirement; however, roughly 85 percent of Colorado's colleges and universities have some type of physical education activity course, health or

Table 2. Requirements for physical education in Colorado's two-year colleges.

Institution	Required	Credit-hours	Types of Courses
Aims Community College	No*	--	Activity courses
Arapahoe Community College	No	--	--
Colorado Northwestern Community College	No*	--	Human Nutrition; Activity courses offered as electives
Community College of Aurora	No	--	--
Community College of Denver	No	--	--
Front Range Community College	No*	--	Activity courses
Lamar Community College	Yes	2	Credits (2) required for general Associates degree; Activity courses
Morgan Community College	No*	--	Up to 3 credits of Activity Courses can be taken as electives; Health & Wellness can be taken as an elective
Northeastern Junior College	No*	--	Activity courses
Otero Junior College	No*	--	Activity courses
Pikes Peak Community College	No*	--	Activity courses
Pueblo Community College	No*	--	Activity courses
Red Rock Community College	No*	--	Can be taken as electives; Activity courses
Trinidad State Junior College	No*	--	Can be taken once as an elective; Activity courses

*denotes possible courses offered as electives or within a major or general education area

wellness course, or nutrition course offered as an elective; considering how dance courses are viewed - we agree with the Society of Health and Physical Educators America (n.d.) that dance courses are "...both a physical activity and an art form..." - that percentage could be higher.

DISCUSSION

The status of required physical education in Colorado's colleges and universities is dismal. Only 15.6 percent of the institutions of higher education within the state require physical education for graduation. In the last two decades, that percentage has dropped from 41 percent (Tomaino et al., 2001) to 15.6 percent. This precipitous drop, unfortunately,

mimics the national trend of 67 percent (Hensley, 2000) to 39.5 percent (Cardinal, Sorensen, & Cardinal, 2012), from the latest numbers available. Still, Colorado's percentage is abysmal compared to the national rate.

As noted earlier, required physical education has been on the decline since the 1960s. During that time, 87 percent of higher-education institutions required physical education for graduation. Today, that number has been reduced by more than half! That is an alarming statistic in and of itself. Numerous reasons have been given for these declines. From a backlash of the reactions to the Vietnam War, where physical education was seen as too militaristic, to budgetary woes, to efforts to place more emphasis on

“academics” (Tomaino et al., 2001, p. 12), required physical education via service programs has been decimated. Some of the rationale for this reduction has been focused on the need to receive external funding, as well as a change in ideology (Sparling, 2003). Ironically, the evidence continues to demonstrate that exercise improves and protects brain function (Smith et al., 2010), and clear relationships between physical fitness and academic achievement also exist (Donnelly et al., 2016). Paradoxically, the overall health and wellness of the US populace, during this time, has seen a marked decrease, and today, only “half of adults get the physical activity they need to help reduce and prevent chronic disease” (CDC, n.d.). It seems we in higher education are abandoning one of our great missions, that of educating the whole student: mind, body, and spirit – the essential element of Dunn’s (1959) principle of wellness, that often is espoused by many collegiate administrators today (NASPA, n.d.).

Some interesting and alarming items were discovered during our research. The flagship system in the State of Colorado is the University of Colorado, in particular, its campus in Boulder. Its *2019-2020 University Catalog* reads, “[c]redits earned in physical education activity courses will not be accepted for transfer credit” (p. 39); however, dance technique courses (e.g., Beginning Contemporary Dance Technique, Beginning Ballet) are offered by the university and are allowed to count for transfer credit. So not only does the flagship institution in the state not teach physical education, it does not even allow physical education courses to be transferred for credit. This seems to be quite punitive for the students of Colorado, especially considering the prestigious Colorado School of Mines as well as the United States Air Force Academy, both institutions of higher education in Colorado, not only allow physical education for credit, but mandate that each student take multiple courses in physical education. As Tomaino et al. (2001) warned, “In Colorado, required physical education is an important topic that needs to be addressed by CAHPERD (Colorado Association for Health, Physical Education, Recreation, and Dance

[now known as SHAPE Colorado, see www.shapeco.org]). [W]ith the fact that a majority of Americans today are overweight, and child obesity rates are on the rise, mandated physical education should be a top priority for all levels of education. It is a sad situation when the flagship institutions of a state that prides itself in physical fitness and recreational pursuits do not require physical education. This is definitely a topic to be lobbied with the Colorado State Legislature” (p. 12).

Unfortunately, nearly 20 years later that call to action was not answered, and the results are appalling. The only bright news from these data is that some 85 percent of the institutions of higher education in Colorado offer some form of physical education. That is definitely a positive. But as noted earlier, it is disheartening that the flagship school in the state does not offer traditional physical education, outside of dance, which we most definitely would recognize as a form of physical education, but CU Boulder, alas, evidently does not.

CONCLUSION

Physical education dates to the mid 1800s in higher education. As Cardinal et al. (2012, p. 509) noted, a physical education requirement was added 37 years before an infirmary was built at Amherst College, indicating that “the leaders...knew 150 years ago what we know to be true today—prevention comes before cure!” We need such a message today in regard to physical education service programs. They are at an all-time low in academe, hovering around 39.5% by the latest study’s data. While that number may be suspect because of limitations with the data collection, we believe that it is vital for detailed data to be collected for institutions of higher education in each state of the United States. This paper is but the first step, or we are hopeful that it is, to developing interest in a regional effort from the scholars of the Western Society for Kinesiology and Wellness to ascertain the precise status of physical education in the institutions of higher education in its regional area. From that point, we are hopeful to take the effort to the entire country.

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