

U.S. Islamic Schools' Promotion of Physical Education and Physical Activity

David Kahan, Thomas L. McKenzie, Maya Satnick and Olivia Hansen

Among Muslims, the states of spiritual well-being and physical health complement each other and should be developed in youth. Regular physical activity (PA) in childhood is associated with multiple health benefits immediately and persisting into adulthood. Schools are ideal venues for children to be physically active owing to curricular (i.e., physical education [PE]), co-curricular (i.e., recess, classroom activity breaks), and extracurricular (i.e., intramural and interscholastic sports) opportunities. Most schools utilize websites to convey and promote information about what they feel is important for website visitors to know. Previous studies on how PE/PA are promoted on school websites excluded U.S. Islamic schools. Therefore, we conducted a content analysis of 222 U.S. Islamic schools' websites to determine the prevalence of images and verbiage promoting PE/PA and associated characteristics. Our descriptive findings suggest that PE/PA are emphasized less compared with other subject matter: PE was mentioned on 53% of websites, intramurals on 29%, and interscholastic sports on 21%. Thus, the holistic education of children in the Islamic tradition may be compromised.

Keywords: school websites, *afiyat*, sports, content analysis, youth

DAVID KAHAN teaches physical education teacher education (PETE) at Coastal Carolina University in Conway, SC. In 2003, he began conducting research about facilitators of and barriers to physical activity in the Muslim community with an emphasis on school-aged youth.

THOMAS L. MCKENZIE is a professor emeritus of PETE at San Diego State University. He has authored/co-authored about 250 scientific papers and chapters and developed numerous assessment, curricular, and mediated materials.

MAYA SATNICK graduated with a B.S. in Exercise and Nutritional Sciences from San Diego State University in 2022 and plans to attend medical school.

OLIVIA HANSEN graduated with a B.S. in Exercise and Nutritional Sciences from San Diego State University in 2022 and plans to attend physical therapy school.

Regular physical activity (PA) during childhood is associated with many benefits in the short term (e.g., lower body fat, improved cognitive function, reduced symptoms of depression) and into adulthood (e.g., lowered risk for heart disease, hypertension, and type 2 diabetes) (U.S. Department of Health and Human Services, 2018). The United States has an estimated 1.35 million Muslim children (Pew Research Center, 2017). Data on the prevalence of physical inactivity and overweight in this population are unavailable, but among 373 Muslim American adult women, 64% reported exercising at least 30 minutes a day for four or more days a week and 42% reported being overweight (Budhwani et al., 2018). Meanwhile, among 447 Arab-Muslim American mothers of young children, 76% reported not performing any strenuous PA during the previous week (Eldoumi & Gates, 2019). Muslim mothers regularly communicate their cultural and religious values about PA to their daughters with their national origin largely determining the acceptability of and conditions for being physically active in the United States (Al-Jayyousi & Myers-Bowman, 2022). Yet Muslim families experience a diminution in collective family time after migrating to the West (Ashbourne et al., 2012), which may curtail conversations and reduce co-participation in PA.

Schools can supplement the role of parents in this regard by promoting PA and getting children engaged in it. Indeed, for decades schools have been encouraged to provide physical education (PE) to improve the public health of students (Sallis & McKenzie, 1991). More recently, a comprehensive school PA program approach recommended schools offer additional opportunities for PA during school (e.g., recess, intramural programs) and before- and after-school (e.g., active transportation, interscholastic athletics) (Centers for Disease Control and Prevention, 2013). Yet many Muslim youths report mixed experiences in school PA settings. For example, Australian Muslim girls eagerly played various inter-school sports, but were less enthusiastic toward PE due to not being accommodated during Ramadan and being required to participate in high-contact PA with boys (Knez et al., 2012). In the United Kingdom, compared with Christian girls, Muslim girls: (a) were more self-conscious about their bodies and participating in a mixed-sex environment; (b) did not enjoy PE or felt it was unimportant; and (c) expressed being uncomfortable about multiple aspects of the PE uniform (Elliott & Hoyle, 2014). As a final example, Muslim Greek girls felt their religious and cultural identities did not impede their participation in PE and that teachers understood their needs; however, they felt these

same schools offered insufficient and uninteresting extracurricular PA for girls (Dagkas & Benn, 2006).

Given these mixed results from public schools, it seems reasonable to infer that the delivery of PE/PA at Islamic schools would be more consonant with students' and families' faith-based beliefs and values. Indeed, boys at one secondary Islamic school in the United Kingdom felt participating in PE and sport was inextricably linked to forming and solidifying their identities as Muslim men in becoming more self-disciplined, rational, and united (Farooq & Parker, 2009). Moreover, as over 40,000 youths attend Islamic schools in the United States (Council for American Private Education, 2017), providing quality school PA experiences would address the community's public health. From an Islamic perspective, Allah loans a corporeal body to us for life during which time we are enjoined to behave in ways that emulate the Prophet Muhammad (PBUH¹). It is thenceforth to be returned and accounted for on the Day of Judgment. Safeguarding the body therefore requires that healthful behaviors such as engaging in PA and exercise be performed regularly (World Health Organization, 1997). Indeed, consistent with the times, the Prophet Muhammad (PBUH) led a vigorous physically active lifestyle that according to the Sunnah² included participating in and/or promoting archery, equestrian activity, swordsmanship, swimming, running, walking, and wrestling (Haddad, 2017). Moreover, the Hadith³, which encourages teaching children swimming, archery, and horseback riding continues to be cited in modern times to justify participating in PA (e.g., Al-Jayyousi et al., 2019). It is disappointing then to read of Islamic schools falling short of these ideals as Chown (2021) related:

... it would have been fair to say that sport wasn't an active part of the emerging identity of the school, that there wasn't a culture of HPE (health and PE) or sport; that in the absence of a HPE department, there had not been a vision for HPE and sport in the context of an Islamic school nor coordinated whole-school structures, traditions, or approaches. (p. 133)

Unsurprisingly, students and their parents do not foreground PE and sport as salient reasons for attending an Islamic over a public school. Instead, immersion in Arabic, Islamic studies, *Tarteel*⁴, performing *salat*⁵, and education within an Islamic framework often drive the decision to attend an Islamic school even when secular subject matter is poorly or inadequately taught (Nur-Awaleh & Mohammed, 2022). Even so, Islamic schools desire their graduates to be on a pathway toward careers in medicine, law, and engineering which results in "HPE along with humanities and arts [being]

viewed as the “soft subjects” that consciously or unconsciously [get] sidelined” (Chown, 2021, p. 132).

Meanwhile, most schools maintain websites to communicate information to parents, students, and stakeholders about the school’s mission/vision, values, policies, academics, student life, and other topics (Gu, 2017). Additionally, independent schools tailor website content for marketing to a target audience, and they often highlight certain offerings when competing with rival schools to recruit prospective students (Wilson & Carlsen, 2016). Unfortunately, the promotion of PE/PA on independent school websites is scarce—52% of 759 U.S. charter schools did not mention even one of five frequently offered PA programs at schools: PE, recess, intramurals, interscholastics, and clubs (Kahan et al., 2019). Studies of private school PE/PA website content have been conducted, but they have either commingled or excluded Islamic schools (e.g., Kahan & McKenzie, 2021; Kahan et al., 2020). Tangentially, Kahan (2018) found only 27% of 773 U.S. mosques mentioned PA programming on their websites; an encouraging sign, however, was the various PA program types (i.e., camps, fitness classes, sports leagues, youth groups) available to youth on mosque websites that mentioned any PA.

Coming full circle, Chown (2021) argued that Islamic education is more coherent when PE and sports are not treated as afterthoughts:

HPE/sport constitute essential disciplines for the integrated or tawhidic⁶ vision of education and are key sites to advance often common aspirations for Islamic schools: To prepare Muslim learners with a strong sense of identity (inclusive of their multiple identities); a strong grounding in faith; and a sense of belongingness. (p. 148)

This premise can be conveyed on Islamic schools’ websites if deemed sufficiently important and would be manifest through verbiage related to PA (e.g., lists of facilities, sports teams, PE curriculum and dosage) and images of students engaged in PA. Therefore, we conducted a content analysis of the websites of all U.S. Islamic schools to determine the prevalence of verbiage and images related to PE/PA. Our curation of data from the websites was intended to answer questions such as: (a) How prevalent is the mention of PE relative to other subject matter? (b) How much PE is required/offered? (c) Who teaches PE? (d) What venues are available for PA? (e) What opportunities are available for extracurricular PA and are they equitable between genders? (f) Are images of PA provided and who is depicted in them? In answering these questions, we attempt to bridge the binary division between Islamic and Western educational

philosophies that in Islamic Education Studies is giving way to curriculum and pedagogical approaches that acknowledge and integrate both traditions (Sahin, 2018).

METHODS

Sample Derivation

We used three electronic directories to create a sampling frame of 714 schools (Figure 1). After removing duplicate entries, we screened the 374 remaining schools and removed an additional 152 schools for 11 reasons—the most common being that a school did not have a functioning website (Figure 1). The final analytic sample consisted of 222 schools with all having a physical location and serving students from kindergarten to twelfth grade. Schools were most commonly K–12 (n = 111, 50.0%), K–8 (n = 73, 32.9%), and K–5/6 (n = 34, 15.3%). The schools were in 37 different states, with California (n = 31, 14.0%) and Florida, New York, and Texas (n = 20 each, 9.0%) most frequently represented.

Data Curation

The study was exempt from IRB approval because the websites were freely available in the public domain; thus, there was no need to interact with schools to obtain the data. Between November 2021 and August 2022, the websites of the schools were searched line by line for the mention

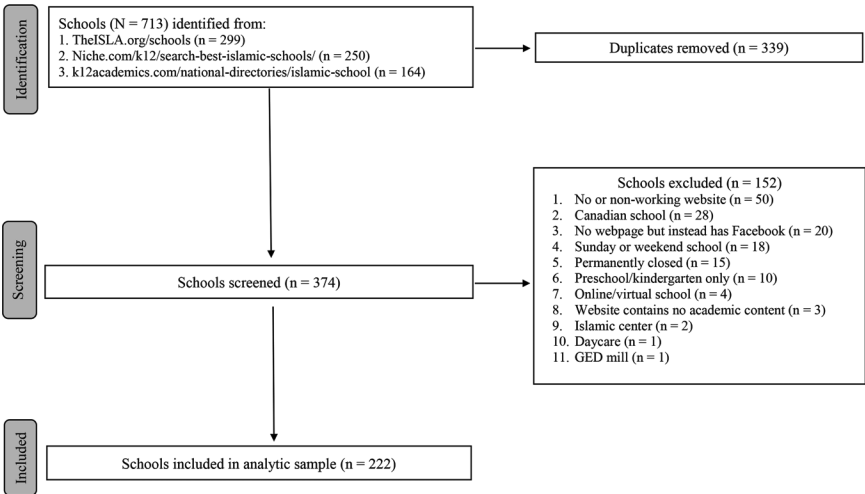


Figure 1. Flow of Islamic School Selection from Sampling Frame to Sample

of PE and related content (i.e., curriculum, teachers), intramural PA, inter-scholastic sport offerings, and PA facilities. (We could not access password-protected parent and student portals on websites and thus were unaware of their content as it related to PE/PA.) We also searched for PA images on the homepage, because website images convey marketing information representing aspects of school culture (Maguire et al., 1999). (We additionally searched for mention of all religious and secular academic subjects.) We started on the homepage or landing page of each school, then navigated and searched the drop-down menus of tabs typically titled “About Us,” “Academics,” “Athletics,” and “School Life” or “Community.” (Operational definitions of the data we searched for are presented in Table 1.)

Table 1. Operational Definitions of Physical Education (PE) and Physical Activity (PA) Content Extracted from School Websites

PE mentioned	If PE, physical education, or gym was mentioned anywhere on the website except in the naming of staff or faculty (0 = not present, 1 = present).
PE dosage	Refers to lessons per week, lesson length, credit hours, and/or PE volume. If PE volume (min/week) was not mentioned, it was calculated if lesson frequency and lesson length were provided.
PE curriculum	If there was mention of the content of a PE course (0 = not present, 1 = present) and further qualified by scope. Scope was categorized into general and specific (0 = general, 1 = specific). “General” referred to terminology such as sports, games, fitness. “Specific” referred to the names of activities such as jump rope, basketball, soccer.
PE teacher	If the term “physical education/PE/gym teacher” was associated with Coach first name or Coach/Mr./Ms./Mrs. last name, excluding athletic trainers (0 = not present, 1 = present). Total number of PE teachers per school was tallied. The teacher’s gender (0 = male, 1 = female) and religion (0 = non-Muslim, 1 = Muslim) was tallied. When gender was not apparent because a picture of the teacher was not provided and/or we were not familiar with the forename, we used https://www.prokerala.com/kids/baby-names/muslim/s/ to distinguish gender. When religion was not apparent because a picture of a female teacher did not show her in hijab, and for male teachers we used https://www.familyeducation.com/baby-names/surname/origin/muslim to distinguish religion.

(Continued)

Table 1. Continued

Images	Posed or unposed images of movement in recess, dance, PE, or sports setting of any age students considering only the homepage (0 = not present, 1 = present). We excluded movies or slides in which users must click to see the entire presentation. The total count of distinct images present on the homepage was tallied. The gender composition of each image was tallied (1 = all male, 2 = all female, 3 = mixed). For images with females, the number wearing hijab was tallied.
Intramurals	Before, during, or after school programs or clubs that included a PA component excluding interscholastic sports (0 = not present, 1 = present). Excluded before- and after-school childcare for students below first grade. The total number of programs or clubs offered was tallied. The name of each listed activity was tallied (e.g., aikido, kickball)
Interscholastics	Included sports in which student teams compete against other schools (0 = not present, 1 = present). Further included the total number of interscholastic sports offered for female, male, and coed teams for specific school levels (middle or high school). The name of each listed activity was tallied (e.g., cross country, volleyball).
PA facility	If there was mention of the school having a facility where PA is typically performed. The total number of facilities was tallied. The name of each listed facility was tallied (e.g., gym, soccer field).

The data were extracted by two trained students and the senior author who had extensive experience assessing website content. Student data collectors were trained separately, being first introduced to the different categories and then iterating each category in their own words to demonstrate understanding. Next, between 10–20 websites in alphabetical order were examined to show the most common locations for finding the desired data. The trainees observed the senior author code and later simultaneously coded with the same author to ensure reliability. Both the trainees and senior author coded in real-time and compared results. The trainees then independently coded websites in batches of 5–10 and compared codes with the senior author until they surpassed an 80% inter-rater reliability. The trainees were then assigned to code the remainder of the schools independently.

Statistical Analysis

We analyzed data using Microsoft Excel and Social Science Statistics (<https://www.socscistatistics.com/>). We calculated frequencies, proportions, and measures of central tendency and variability. For the latter

two metrics, we performed the Kolmogorov-Smirnov test of normality to determine whether the data were normally distributed. When data were normally distributed, we calculated mean/standard deviation; when they were not, we calculated median/interquartile range.

RESULTS

Mention of PE and Religious and Secular Academic Content

PE ranked 7th relative to the proportion of websites mentioning it compared with other subject matter areas—ahead of only fine/visual arts (Table 2). At 52.7%, the mention of PE trailed the other remaining subject matter areas by at least 20%. Quran/Islamic studies and Arabic were the only subject matter areas mentioned on more than 80% of websites (Table 2).

Table 2. Prevalence of School Websites Mentioning Academic Content by Subject (n = 222)

Subject	Percentage
Quran/Islamic studies	87.4
Arabic	85.1
Math	78.8
Science	78.4
English language arts	77.5
Social studies	73.0
Physical education	52.7
Fine/visual arts	47.3

PE Dosage, Curriculum, and Teachers

Overall, 17.1% of school websites mentioned PE dosage (i.e., lesson frequency, lesson length, credit hours, and/or volume) (Table 3). At the elementary/middle school levels, PE was offered a median of 2.0 ± 0.5 days/week. At the high school level, a median of 2.0 ± 1.0 credits of PE was required to be taken. Only one school mentioned lesson length (i.e., 45 min) and six schools mentioned weekly volume. Of these, four elementary schools mentioned offering PE an average of 87.4 ± 39.9 min/week.

Overall, 18.0% of school websites mentioned PE in their curriculum. Of these, 45.0% described their curriculum generally (i.e., sports, games) and 55.0% described it specifically (i.e., specific names of activities) (Table 3).

Overall, 33.3% of school websites mentioned 110 different PE teachers by name, with one PE teacher per school most frequently mentioned (66.2%) (Table 3). Of all PE teachers mentioned, the majority were female (54.5%) and Muslim (73.6%) (Table 3).

Table 3. Prevalence of School Websites Mentioning Physical Education (PE) Characteristics (n = 222)

Characteristic	Percentage
Dosage	17.1
Curriculum	18.0
General	45.0
Specific	55.0
PE teacher	33.3
Female	54.5
Muslim	73.6

PA Facilities and Images

Overall, 23.9% of school websites mentioned PA facilities (Table 4), with 107 facilities tallied. Among those mentioned, 85.9% were concentrated among four types: playgrounds, gyms, basketball courts, and soccer fields (Table 5).

Table 4. Prevalence of School Websites Mentioning Physical Activity (PA) Characteristics (n = 222)

Characteristic	Percentage
Interscholastic sports	21.2
Visual image of PA	21.6
PA facility	23.9
Intramural PA	29.3

Overall, 21.6% of school websites included at least one PA image on their homepage (i.e., the only location we checked) (Table 4), with 105 images displayed ($Mdn = 1.0 \pm 2.0$ images/homepage). Among these websites, 28 (58.3%) displayed images that depicted mixed-gender scenes or presented a combination of male-only and female-only images; 13 (27.1%) displayed only images of males, and the remaining 7 (14.6%) displayed only images of females. Among the 59 PA images depicting females, we tallied the frequency of students in hijab and then divided by the total number of female students in the images to derive a percentage for each website. There was considerable variation ($Mdn = 25.0 \pm 100.0\%$ females covered/website).

Intramurals and Interscholastics

Overall, 29.3% of school websites mentioned intramurals (Table 4), with 146 activities identified ($Mdn = 2.0 \pm 2.0$ activities listed/school when a school mentioned any). Three activities comprised more than 50% of the offerings: soccer (n = 30), basketball (n = 23), and martial arts (n = 22) (Table 5).

Table 5. Most Frequently Mentioned Facilities, Intramurals, and Interscholastic Sports

Category	Total Mentioned	Percentage
Facility	107	
Playground	35	32.7
Gym	30	28.0
Soccer field	14	13.1
Basketball court	13	12.1
Other	15	14.0
Intramurals	146	
Soccer	30	20.5
Basketball	23	15.8
Martial arts	22	15.1
Walk/run	12	8.2
Sports (specific) ^a	12	8.2
Field day	8	5.5
Sports (general) ^b	7	4.8
Racquet sports	5	3.4
Fitness	5	3.4
Archery	4	2.7
Other	18	12.3
Interscholastics ^c		
Boys	123	
Basketball	57	46.3
Soccer	36	29.3
Cross country	8	6.5
Track	7	5.7
Football	6	4.9
Other	9	7.3
Girls	103	
Basketball	48	46.6
Soccer	26	25.2
Volleyball	11	10.7
Cross country	7	6.8
Track	7	6.8
Other	4	3.9

^aSports (specific) represents a combined tally of sports mentioned by name (e.g., hockey, volleyball).

^bSports (general) represents website verbiage that stated sports were provided but without naming them.

^cCounts for a particular sport represent the sum of mentions for middle and high school sports.

Overall, 21.2% of school websites mentioned interscholastic sports (Table 4), with 228 sports teams across middle/high school grade and gender combinations representing 12 different sports ($Mdn = 4.0 \pm 4.0$ sports teams/listing school). Only two websites listed coed sports teams (middle school cross country, high school badminton). For both males and females, basketball and soccer teams combined represented more than 70% of offerings (Table 5). Several sports were preponderantly represented by one gender. For males it was football (100% of seven teams identified); for females, it was volleyball (84.6% of 11 teams identified). Among the 47 websites that listed at least one sport, 28 (57.4%) mentioned the same number of sports for males and females, while 8 (17.1%) and 7 (14.9%) websites mentioned one and two more sports for males, respectively.

DISCUSSION

Utilizing content analysis to examine the promotion of PE/PA on U.S. Islamic school websites, we uncovered a hidden agenda in which the mention of PE was subordinate to nearly all other subject matter. Religious subject matter was prioritized which aligns with what parents most value about Islamic school education (Nur-Awaleh & Mohammed, 2022). Similarly, Kahan et al. (2019) previously found 68% of charter school websites that did not mention PE still mentioned math and English language arts. Our finding is regrettable as Chown (2021) posited that PE and Islamic religious studies are interlaced and complementary to one another: “Hence, with the correct intention (*niyah*) and action (*amal*), HPE and sport, like other activities, can be elevated to an act of worship (*ibadah*), with the potential for growth through expressions of consciousness” (p. 127), and “HPE offers opportunities for engagement in critical religious reflection on practical ways that faith informs and enhances health/healthy bodies/healthy living, wellbeing, justice, and understandings of contemporary issues relevant to learners’ lives” (p. 148). Chown’s comments closely relate to *afiyah* or overall well-being (including health), which Muslims may ask for in their *du’a* (supplications).

A majority (55%) of the listed PE teachers were female, which affords opportunities for female students to regularly interact with same-sex role models of PA. Additionally, potential concerns of female students and their parents about PE being taught in a mixed-gender environment might be lessened when the teacher is female. A majority (74%) of listed PE teachers were Muslim, which similarly affords opportunities for all students to

regularly interact with co-religionist adult role models of PA. The figure coincides with data—albeit not updated—that indicate between 10% and 30% of U.S. Islamic school teachers are non-Muslims (Keyworth, 2011).

Playgrounds and gymnasiums were the most frequently identified PA facilities, representing over 60% of those mentioned. Similarly, among 94 K–8 and K–12 Jewish day schools, gyms and playgrounds were also most frequently mentioned (Kahan et al., 2021). Slightly more than 20% of school websites' homepages showed any images of students engaged in PA, which is more than 50% less than those shown among California private elementary schools (Kahan & McKenzie, 2020). Website images are purposively selected by faith-based schools to communicate and market their meanings of tradition and community to site visitors (Wilkins, 2011). Although most websites posting PA images showed images of both males and females, nearly twice as many posted PA images of only males. Doing so may send an unintended, gendered message that PA is more appropriate for males than females. This is concerning as it perpetuates a deficit model of female Muslims participating in PA and tacit exclusion from full connection and agency in their community and larger society (Toffoletti & Palmer, 2017).

For intramurals, soccer, basketball, and martial arts comprised more than 50% of offerings mentioned on the websites. Similarly, martial arts, basketball, and soccer were the most mentioned intramurals among elementary and middle school grades on Jewish day school websites (Kahan et al., 2020). Basketball and soccer are ranked 2nd and 4th among sports in which U.S. youth regularly participate, while average annual family spending for these three sports ranges between \$427 (basketball) and \$777 (martial arts) (The Aspen Institute, 2019). These figures, combined with the observation that a social gradient with increasing income exists for regular participation in sport (The Aspen Institute, 2019), makes Islamic schools offering these and other intramural PA vital to students' well-being.

For interscholastic sport, mentions of basketball and soccer teams represented over 70% of teams for both males and females. Similarly, Jewish day school websites mentioned interscholastic basketball (i.e., 90%–98% by school level/gender) and soccer (i.e., 66%–77% by school level/gender) more than any other sport (Kahan et al., 2020). According to 2021–2022 high school participation data, basketball ranked first for boys and girls and soccer ranked 7th for boys and 6th for girls by number of schools fielding a team (National Federation of High Schools, 2022). From an Islamic perspective, basketball is considered Muslim American male

youths' favorite sport with notable Muslim representation in the National Basketball Association and National Collegiate Athletic Association, and Muslim recreational and Islamic center leagues exist in larger metro areas (Sacirbey, 2012; Thangaraj, 2015). Soccer's popularity in the United States pales in comparison with basketball. Nonetheless, Muslim immigrants to the United States frequently hail from countries in which soccer's popularity is supreme, and international stars are regularly seen embracing their Muslim identity in the face of *fatwas*⁷ banning participation in soccer (Shavit, 2019). In our study, 32% of websites mentioning interscholastic sports listed one or two more teams for boys than girls. Interestingly, in the United States the number of boys' high school sports teams declined by 3.4 teams per school over a six-year period compared with a decline of 2.1 teams for girls (Veliz et al., 2019). Overall, the mean difference between the number of boys' and girls' teams was 0.4, which was the same difference found between genders among Jewish day schools' sports teams (Kahan et al., 2020).

Previous studies analyzed the PE/PA website content of 2,785 California charter schools, California private elementary schools, U.S charter schools, and North American Jewish day schools, the latter representing a religion that also holds canon requiring safeguarding the body (Kahan et al., 2019, 2020, 2021; Kahan & McKenzie, 2020, 2021). Table 6 displays percentages of websites mentioning seven PE/PA characteristics for comparison with the current study's findings. Greater proportions of U.S. Islamic schools mentioned PE/PA characteristics compared with California (5 of 5 comparisons) and U.S. (4 of 5 comparisons) charter elementary schools (Kahan et al., 2019; Kahan & McKenzie, 2021). Conversely, greater proportions of California private elementary schools (5 of 6 comparisons) and North American Jewish day schools (6 of 6 comparisons) mentioned PE/PA characteristics compared with U.S. Islamic schools (Kahan et al., 2020, 2021; Kahan & McKenzie, 2020, 2021). Although not documented, California private schools and Jewish day schools may have greater financial resources than the state's Islamic schools, allowing them to provide more and more diverse PE/PA programming that could be promoted online. Indeed, Islamic schools walk a tightrope of setting a tuition threshold that is affordable but may still be considered high by some parents (Nur-Awaleh & Mohammed, 2022). Meanwhile, the average tuition of Jewish day schools was \$22,910 (Prizmah, 2020), and the median income of families living within a California private elementary school's zip code was \$76,500 (Kahan & McKenzie, 2020).

Table 6. Comparisons of Percentages of School Websites Mentioning Physical Education (PE) and Physical Activity (PA) Characteristics (n = 222)

Characteristic	U.S. Islamic schools (n = 222)	CA private ES ^{a,b} (n = 990)	CA charter ES ^b (n = 520)	U.S. charter ES ^c (n = 759)	NA Jewish schools ^{d,e} (n = 516)
PE	53	71	31	34	59
PE curriculum	18	39	13	7	51
PE teacher	33	55	23	37	36
Interscholastic sports	21	46	17	9	41
Intramural PA	29	27	20	6	45
Visual image of PA	22	75	—	—	—
PA facility	24	—	—	—	27

Note. Reported values are rounded. CA = California. ES = elementary school. NA = North American. — = not mentioned.

^aKahan & McKenzie, 2020.

^bKahan & McKenzie, 2021.

^cKahan et al., 2019.

^dKahan et al., 2020.

^eKahan et al., 2021

Our current study has multiple strengths. Functionally, we completed a national audit of all Islamic schools with working websites. We used the same operational definitions and strategies in searching as previous studies, which allowed us to compare them directly (see Table 6). Islamic schools' promotion of PE/PA fell between that of California and U.S. charter schools and California private and North American Jewish day schools. If data had been gathered by interacting with school staff through mail, electronic, or phone surveys, we most likely would have identified social desirability biases. As to the former, for example, the Islamic Schools League of America (ISLA, 2021) emailed surveys to 300 school principals about the impact of COVID-19 and received 79 usable responses (i.e., 26% response rate).

Our findings apply only to the content found during a fixed period; updates and changes are expected over time. Also, some programs and

practices mentioned may not actually be occurring. Follow-up with direct observations could determine whether schools do what they promote online, but with over 200 schools spread over the United States, this was beyond our capacity. Of the 152 schools excluded, 71 had no or a non-working website, used Facebook, or had a website with no content. These schools may have offered PE/PA, but no assessment was possible. There were 17 (7.7%) school websites that mentioned PE, intramurals, and interscholastic sports; there were 3 (1.4%) school websites that mentioned curriculum, PE teacher, and facilities, and included an image. We would consider these schools to be optimally using their websites to promote their programs and practices, but do not know the reasons they did this. Follow-up with principals would be insightful.

CONCLUSION

Given that in some geographic areas (e.g., Houston, Philadelphia, metro New York City) there are sufficient Islamic schools to afford parental choice, schools may or may not choose to highlight PE/PA on websites depending on their target audience. Parents—who choose their child's school—hold favorable attitudes toward PE (Graham, 2008), yet they may lack knowledge or be misinformed about what goes on in PE (Barney & Pleban, 2010). Creating a PE webpage or augmenting PE/PA content on existing pages offers a public medium for demonstrating the role of PE/PA in educating the whole child. Recommendations written in lay terms for what to include are available (Tucker & Hill, 2009).

Our content analysis of school websites observed the confluence of policy, practice, and promotion as they relate to PE/PA. Websites were not originally intended as surveillance portals; however, researchers have used them to examine policies and practices in education. For example, in New Zealand, the magnitude of outdoor education content on secondary school websites depended on school administrators' priorities for what they wished to promote (Campbell-Price, 2018). Overall, it appears that surveillance of school website content can reveal the possible existence of a hidden agenda, although its limitations would require follow-up with various school stakeholders to confirm.

Beside the PAs we found, Islamic schools might consider other means of engaging students in PA. For example, Virtual Umra was conducted at one school for six weeks during which time students wore pedometers during the school day to virtually complete scaled steps/mile from San Diego,

CA to Mecca, KSA (Kahan & Nicaise, 2012). In the U.K., South Asian parents, Islamic leaders, and Islamic religious settings workers and managers recommended multiple approaches for enhancing PA in a madrassa setting (Dogra et al., 2021). Examples we believe could be translated to U.S. Islamic school settings include teaching how Muhammad (PBUH) was a role model for PA, providing classroom activity breaks, improving/providing PA infrastructure, encouraging active transportation to/from school, and promoting Prophetic sports (Dogra et al., 2021). A six-month mosque-based exercise program for women in Canada resulted in increased attendance over time, increased sense of importance of exercising and confidence to exercise, and increased time spent in PA (Banerjee et al., 2017). Adaptations of such a program that would bridge Islamic schools and their sponsoring/affiliated mosques as well as bring mothers and their daughters together seem appropriate.

There are three practical suggestions emanating from our study. First, schools without a website should consider the advantages of having one (i.e., central resource/repository accessible to all stakeholders, means of showcasing a school for the purpose of student recruitment). Second, these schools and those already with websites should at a minimum offer basic information about PE/PA to include PE, recess, and sports schedules; curriculum overview and differentiation by grade level (e.g., elementary school vs. middle school); identification of PE teachers and their qualifications; and several prominently displayed images of students engaged in PA. Third, schools should periodically update content and in the process audit their own and other Islamic schools' websites to identify omissions and worthwhile content, respectively. Any gaps between what is promised and delivered should be remediated. For example, if a school's website claims children have a daily 20-minute recess and in practice they do not, the deficit should be corrected.

Eighty-six percent of U.S. Islamic schools are accredited or in the process of applying (ISLA, n.d.). The accrediting body, the Council of Islamic Schools in North America (CISNA) "address[es] all areas [of institutional quality] through an Islamic lens, and the process focuses on the spiritual life of the school" (Azmat & Shatara, 2023, p. 120). Its "Teaching and Learning standard covers curriculum and assessment, teacher qualifications and expectations, professional development, and student programs and activities" (Azmat & Shatara, 2023, p. 122). It would be advisable for CISNA to formulate distinct standards for quality PE/PA informed by professional standards/outcomes for PE and sport (Gano-Overway et al.,

2021; SHAPE America, 2013) and imbued with Islamic *Din*⁸ and culture. Policies and standards are only useful if implemented. It is ultimately up to schools to enact the Hadith that health is second only to faith in what we ask and are granted by Allah (<https://sunnah.com/ahmad:10>).

Notes

1. Peace Be Upon Him (PBUH) is a translation of *alayhi as-salām* and is used to show respect.
2. Traditions and practices of the Prophet Muhammad (PBUH) that are to be emulated.
3. Refers to the words, actions, and tacit approvals of the Prophet Muhammad (PBUH) that have been passed down over centuries.
4. Rules explaining proper recitation of the Quran.
5. Ritual prayer of Muslims performed five times daily.
6. As used in education, getting students to see the big picture based on the oneness of God and the unity of knowledge, humanity, and creation.
7. Formal ruling or interpretation of Islamic law given by a qualified legal scholar.
8. Refers to the way Muslims lead their lives through beliefs, character, and deeds to comply with divine law.

References

- Al-Jayyousi, G. F., Munshar, M. A., Al-Salim, F., & Osman, E. R. (2019). Addressing context to understand physical activity among Muslim university students: The role of gender, family, and culture. *BMC Public Health*, 19, 1452. <https://doi.org/10.1186/s12889-019-7670-8>
- Al-Jayyousi, G. F., & Myers-Bowman, K. S. (2022). Health-related maternal practices of immigrant Muslim mothers in the United States. *Journal of Family Studies*, 28(1), 108–132. <https://doi.org/10.1080/13229400.2019.1682644>
- Ashbourne, L. M., Baobaid, M., & Azizova, K. S. (2012). Expanding notions of family time and parental monitoring: Parents' and adolescents' experiences of time spent together and apart in Muslim immigrant families. *Journal of Comparative Family Studies*, 43(2), 201–215. <https://doi.org/10.3138/jcfs.43.2.201>
- Azmat, S., & Shatara, L. H. (2023). Practitioner's note: The Council of Islamic Schools in North America (CISNA): An internationally recognized accrediting agency. *Journal of Education in Muslim Societies*, 4(2), 116–126. <https://doi.org/10.2979/jems.4.2.07>
- Banerjee, A. T., Landry, M., Zawi, M., Childerhose, D., Stephens, N., Shafique, A., & Price, J. (2017). A pilot examination of a mosque-based physical activity intervention for South Asian Muslim women in Ontario, Canada. *Journal of Immigrant and Minority Health*, 19(2), 349–357. <https://doi.org/10.1007/s10903-016-0393-3>
- Barney, D., & Pleban, F. T. (2010). Parents' knowledge of appropriate teaching practices in elementary school physical education programs. *International Journal about Parents in Education*, 4(1), 1–10.
- Budhwani, H., Borgstede, S., Palomares, A. L., Johnson, R. B., & Hearld, K. R. (2018). Behaviors and risk for cardiovascular disease among Muslim women in the United States. *Health Equity*, 2(1), 264–271. <http://online.liebertpub.com/doi/10.1089/heq.2018.0050>

- Campbell-Price, M. (2018). It depends on the priorities: The presence and profile of outdoor education on school websites. *Journal of Adventure Education and Outdoor Learning*, 18(3), 189–200. <https://doi.org/10.1080/14729679.2017.1409642>
- Centers for Disease Control and Prevention. (2013). *Comprehensive school physical activity programs: A guide for schools*. U.S. Department of Health and Human Services. https://www.cdc.gov/healthyschools/physicalactivity/pdf/13_242620-A_CSPAP_SchoolPhysActivityPrograms_Final_508_12192013.pdf
- Chown, D. (2021). A strength-based approach to religion and spirituality for Muslim learners in health and physical education. In N.A. Memon, M. Alhashmi, & M. Abdalla (Eds.), *Curriculum renewal for Islamic education: Critical perspectives on teaching Islam in primary and secondary schools* (pp. 125–152). Routledge.
- Council for American Private Education (2017). Gallup Poll: Americans give high marks to private schools. <https://capenetwork.org/wp-content/uploads/2022/09/Outlook427.pdf>
- Dagkas, S., & Benn, T. (2006). Young Muslim women's experiences of Islam and physical education in Greece and Britain. A comparative study. *Sport, Education and Society*, 11(1), 21–38. <https://doi.org/10.1080/13573320500255056>
- Dogra, S. A., Rai, K., Barber, S., McEachan, R. R. C., Adab, P., & Sheard, L. (2021). Delivering a childhood obesity prevention intervention using Islamic religious settings in the UK: What is most important to the stakeholders? *Preventive Medicine Reports*, 22, 101387. <https://doi.org/10.1016/j.pmedr.2021.101387>
- Eldoumi, H., & Gates, G. (2019). Physical activity of Arab Muslim mothers of young children living in the United States: Barriers and influences. *Ethnicity & Disease*, 29(3), 469–476. <https://doi.org/10.18865/ed.29.3.469>
- Elliott, D., & Hoyle, K. (2014). An examination of barriers to physical education for Christian and Muslim girls attending comprehensive secondary schools in the UK. *European Physical Education Review*, 20(3), 349–366. <https://doi.org/10.1177/1356336X14534358>
- Farooq, S., & Parker, A. (2009). Sport, physical education, and Islam: Muslim independent schooling and the social construction of masculinities. *Sociology of Sport Journal*, 26(2), 277–295. <https://doi.org/10.1123/ssj.26.2.277>
- Gano-Overway, L., Thompson, M., & Van Mullem, P. (2021). *National standards for sport coaches: Quality coaches, quality sports*. Jones & Bartlett Learning.
- Graham, G. (2008). Children and adults' perceptions of elementary physical education. *The Elementary School Journal*, 108(3), 241–249. <https://doi.org/10.1086/529106>
- Gu, L. (2017). Using school websites for home-school communication and parental involvement? *Nordic Journal of Studies in Educational Policy*, 3(2), 133–143. <https://doi.org/10.1080/20020317.2017.1338498>
- Haddad, G. F. (2017). *Sports in the Sunnah of Prophet Muhammad*. <https://sunnah.org/2017/01/12/sports-in-the-sunnah/>
- Islamic Schools League of America. (2021). *COVID-19 & Islamic schools: 2020–2021 year in review*. <https://theisla.org/wp-content/uploads/2021/09/COVID-19-Islamic-Schools-2020-2021-Year-in-Review.pdf>
- Islamic Schools League of America. (n.d.). *Islamic school profile study, 2022–2023: Exclusive emerging data report*. <https://theisla.org/isla-database-project/>
- Kahan, D. (2018). Physical activity programming advertised on websites of U.S. Islamic Centers: A content analysis. *International Journal of Environmental Research and Public Health*, 18, 2581. <https://doi.org/10.3390/ijerph15112581>

- Kahan, D., & McKenzie, T. L., (2020). School websites: A physical education and physical activity content analysis. *Journal of School Health*, 90(1), 47–55. <https://doi.org/10.1111/josh.12851>
- Kahan, D., & McKenzie, T. L. (2021). Website representations of physical activity and physical education: Comparison of public charter and private schools. *Research Quarterly for Exercise and Sport*, 92, 865–872. <https://doi.org/10.1080/02701367.2020.1761934>
- Kahan, D., McKenzie, T. L., & Fedoriouk, R. (2021). North American Jewish day schools' online promotion of physical education. *Health Behavior and Policy Review*, 8(1), 28–39. <https://doi.org/10.14485/HBPR.8.1.3>
- Kahan, D., McKenzie, T. L., & Khatri, A. (2019). U.S. charter schools neglect promoting physical activity: Content analysis of nationally representative elementary charter school websites. *Preventive Medicine Reports*, 14, 100815. <https://doi.org/10.1016/j.pmedr.2019.01.019>
- Kahan, D., McKenzie, T. L., O'Brien, A., Portillo, C., Sprague, R., Marchant, E., & Lising, N. (2020). Physical activity messaging on North American Jewish day school websites. *Journal of Jewish Education*, 86(3), 271–297. <https://doi.org/10.1080/15244113.2020.1784064>
- Kahan, D., & Nicaise, V. (2012). Virtual Umla: An interdisciplinary faith-based pedometer intervention for increasing steps at school. *Journal of Physical Activity and Health*, 9(3), 402–413. <https://doi.org/10.1123/jpah.9.3.402>
- Keyworth, K. (2011). *Islamic schools of the United States: Data-based profiles*. Institute for Social Policies and Understanding. https://www.ispu.org/wp-content/uploads/2011/04/2011_609_ISPU-Report-Islamic-Schools_Keyworth_WEB.pdf?x61645
- Knez, K., Macdonald, D., & Abbott, R. (2012). Challenging stereotypes: Muslim girls talk about physical activity, physical education and sport. *Asia-Pacific Journal of Health, Sport and Physical Education*, 3(2), 109–122. <https://doi.org/10.1080/18377122.2012.700691>
- Maguire, M., Ball, S. J., & Macrae, S. (1999). Promotion, persuasion and class-taste: Marketing (in) the UK post-compulsory sector. *British Journal of Sociology of Education*, 20(3), 291–308. <https://doi.org/10.1080/01425699995272>
- National Federation of High Schools. (2022). *High school athletics participation survey*. https://www.nfhs.org/media/5989280/2021-22_participation_survey.pdf
- Nur-Awaleh, M. A., & Mohammed, R. (2022). The role of Islamic schools: Between Muslim immigrant families'/students' perceptions and institutional realities. *Journal of Education in Muslim Societies*, 3(2), 79–99. <https://doi.org/10.2979/jems.3.2.06>
- Pew Research Center. (2017). *U.S. Muslims concerned about their place in society, but continue to believe in the American dream*. <https://www.pewresearch.org/religion/2017/07/26/demographic-portrait-of-muslim-americans/#muslims-in-the-us>
- Prizmah. (2020). *A portrait of Jewish day schools and yeshivas: 2020 benchmarking report*. https://prizmah.org/sites/default/files/uploads/Knowledge_Center/A%20Portrait%20of%20Jewish%20Day%20Schools%20and%20Yeshivas%202020%20Benchmarking%20Report.pdf
- Sacirbey, O. (2012). *Why basketball is Muslims' favorite sport*. <https://religionnews.com/2012/05/18/why-basketball-is-muslims-favorite-sport/>
- Sahin, A. (2018). Critical issues in Islamic education studies: Rethinking Islamic and Western liberal secular values of education. *Religions*, 9(11), 335. <https://www.doi.org/10.3390/rel9110335>
- Sallis, J. F., & McKenzie, T. L. (1991). Physical education's role in public health. *Research Quarterly for Exercise and Sport*, 62(2), 124–137. <https://www.doi.org/10.1080/02701367.1991.10608701>
- Shavit, U. (2019). Being a Muslim football player in Europe. *Soccer & Society*, 20(2), 271–287. <https://doi.org/10.1080/14660970.2017.1302938>

- SHAPE America. (2013). *Grade-level outcomes for K-12 physical education*. SHAPE America. https://www.shapeamerica.org/Common/Uploaded%20files/document_manager/standards/pe/Grade-Level-Outcomes-for-K-12-Physical-Education.pdf
- Thangaraj, S. (2015). "We're 80 percent more patriotic": Atlanta's Muslim South Asian Americans and cultural citizenship. In S. A. Jackson (Ed.), *Routledge international handbook of race, class, and gender* (pp. 220–230). Routledge.
- The Aspen Institute. (2019). *State of play: Trends and developments in youth sports*. https://www.aspeninstitute.org/wp-content/uploads/2019/10/2019_SOP_National_Final.pdf
- Toffoletti, K., & Palmer, C. (2017). New approaches for studies of Muslim women and sport. *International Review for the Sociology of Sport*, 52(2), 146–163. <https://doi.org/10.1177/1012690215589326>
- Tucker, M., & Hill, G. M. (2009). A checklist for designing and evaluating physical education program websites. *Journal of Physical Education, Recreation & Dance*, 80(9), 43–47. <https://doi.org/10.1080/07303084.2009.10598394>
- U.S. Department of Health and Human Services. (2018). *Physical activity guidelines for Americans* (2nd ed.). https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf
- Veliz, P., Snyder, M., & Sabo, D. (2019). *The state of high school sports in America: An evaluation of the nation's most popular extracurricular activity*. Women's Sports Foundation. <https://www.womenssportsfoundation.org/wp-content/uploads/2019/10/state-of-high-school-sports-report-final.pdf>
- Wilkins, A. (2011). School choice and the commodification of education: A visual approach to school brochures and websites. *Critical Social Policy*, 32(1), 69–86. <https://doi.org/10.1177/0261018311425199>
- Wilson, T. S., & Carlsen, R. L. (2016). School marketing as a sorting mechanism: A critical discourse analysis of charter school websites. *Peabody Journal of Education*, 91(1), 24–46. <https://doi.org/10.1080/0161956X.2016.1119564>
- World Health Organization. Regional Office for the Eastern Mediterranean. (1997). *Health: An Islamic perspective*. <https://apps.who.int/iris/handle/10665/119576>