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Perceived Workplace Experiences of Adapted Physical Educators and Physical Educators

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ABSTRACT

Purpose: The purpose of this study was to compare the workplace experiences of physical education and adapted physical education teachers while also considering biological sex. Role socialization theory was used as a guiding lens. Method: Participants included 653 teachers (women = 382) who taught physical education (n = 420) or adapted physical education (n = 233). Five instruments were used to examine workplace experiences regarding: (a) marginalization and isolation, (b) two elements of perceived mattering, (c) three role stressors, (d) resilience, and (e) emotional exhaustion. Group comparisons were analyzed using a 2 x 2 (discipline x biological sex) factorial MANCOVA while including years of teaching experience as a covariate. Results: No significant interaction effect between teacher group and biological sex was detected; however, there were significant main effects of teacher group, F(9,640) = 19.49, p < .001; Wilk’s Λ = .79, partial-η² = .22, and of biological sex, F(9,640) = 2.81, p < .01; Wilk’s Λ = .96, partial-η² = .04, on the dependent variables. Significant follow-up univariate tests showed that the adapted physical education teachers perceived less marginalization, less isolation, more perceived mattering, and less emotional exhaustion than the physical education teachers. Women from both groups felt significantly more role overload when compared to the men. Conclusion: Collectively, these findings both relate to and extend role socialization theory in explaining how adapted physical education teachers are socialized through the workplace in comparison to their physical education counterparts. Practical implications for preservice and inservice teacher preparation and future research directions are discussed.

Considering the contemporary educational climate, which includes high-stakes testing and school accountability (Dworkin & Tobe, 2014) and a negative public perception of teachers (Nuñez, 2015), the teaching profession has been recognized as a stressful career path (Greenberg, Brown, & Abenavoli, 2016). Those who teach “non-core” or “special” subjects, including physical education (PE), often face additional stressors associated with isolation, teaching large class sizes, and limited resources that stem from their discipline being viewed as marginal or peripheral to the mission of schooling (Laureano et al., 2014). Physical educators may internalize feelings of marginalization and begin to believe that their subject area is not as important as “core” subjects, such as reading, mathematics, and science (Richards, Gaudreault, & Woods, 2018). Collectively, these stressors can contribute to the dilution of innovative teaching practices through the washout effect (Blankenship & Coleman, 2009), feelings of burnout (Richards, Washburn, & Hemphill, 2019), and early career attrition (Mäkelä, Hirvensalo, & Whipp, 2014).

The workplace experiences of those who teach adapted physical education (APE) may be different than those who teach PE, given that job requirements place greater emphasis on aspects of special education, such as individualized education programming (Wilson, Richards, & Kelly, 2017). For example, APE teachers must be prepared to teach high caseloads of students with diverse ranges of disability types and severities (Obrusnikova & Kelly, 2009) while contributing to individualized program development and assessment (Nichols, Block, & Wilson, 2018). To this end, APE teachers may feel the stressors associated with marginalization to a greater extent than their PE counterparts (Wilson & Richards, 2019). To address the stressors that PE and APE teachers encounter in the workplace, researchers have examined how positive sociopsychological experiences, such as resilience and perceived mattering, may reduce stress and prevent burnout (Richards, Wilson, Holland, & Haegele, 2019; Richards et al., 2018). Nevertheless, it remains unclear how APE
teachers experience workplace stressors in comparison to their PE counterparts. Since there is a dearth of research in this area, this study serves an important, initial, and exploratory purpose by comparing the workplace experiences of PE and APE teachers through the lens of role socialization theory (Richards, 2015).

**Role socialization theory**

As illustrated in Figure 1, role socialization theory (Richards, 2015; Richards & Hemphill, 2017) explores teachers’ recruitment, education, and workplace experiences through a blend of occupational socialization theory (Templin & Schempp, 1989) and role theory (Merton, 1957). During their formative years, prospective teachers observe thousands of hours of instruction during what Lortie (1975) called the apprenticeship of observation, whereby they begin to develop subjective theories (Grotjahn, 1991) related to what it means to be a teacher. These subjective theories may prompt recruits to resist elements of teacher education as faculty members seek to instill appropriate pedagogical practices, especially if the training is incomplete.

![Figure 1](Image)

**Figure 1.** Overview of role socialization theory in relation to the constructs examined in this study. Adapted from Richards and Hemphill (2017).
incongruent with their formative educational experiences (Schempp & Graber, 1992). While the development of subjective theories has been evident in PE (Curtner-Smith, 2017), these theories may be underdeveloped in APE recruits who may not have firsthand experiences with APE during formative education (Wilson et al., 2017). Thus, preservice APE teachers may be more receptive to teacher education than their PE counterparts (Park & Curtner-Smith, 2018; Richards & Wilson, 2019).

As PE and APE teachers are inducted into their first teaching positions and subsequently socialized throughout their careers, established social conventions guide how they understand their work roles (Richards, Wilson et al., 2019). Hence, teaching roles are believed to be socially constructed as expectations for role performance are negotiated among teachers within a particular school (Richards & Hemphill, 2017). Since different schools hold different expectations, schools may have a positive, negative, or indifferent value appraisal of PE and APE, which helps explain why some workplaces support and others marginalize these disciplines (Gaudreault & Woods, 2012; Park & Curtner-Smith, 2018; Pennington, Prusak, & Wilkinson, 2014). Conversely, perceived mattering relates to the extent to which teachers believe that they (and their discipline) are important to those around them in the school. Perceived mattering has been found to reduce feelings of marginalization (Richards, Washburn, et al., 2019).

In unsupportive environments, teachers may experience role stressors, which include role ambiguity, role overload, and role conflict (Conley & You, 2009). Role ambiguity occurs when role expectations are unclear and fail to define the work role (Hindin, 2007). In these cases, a PE or APE teacher may not understand how to conduct the role appropriately or how they are being evaluated. Role overload refers to situations in which a role requires more than an individual can reasonably meet given allocated time and resources (Hindin, 2007). Finally, role conflict occurs when key stakeholders (e.g., colleagues, administrators, students) have expectations for behavior that are incongruent (Biddle, 1986). For example, parents may expect teachers to behave in a specific way while school administrators expect differently. These role stressors, along with marginalization, and isolation, can increase emotional exhaustion, which is the hallmark of burnout (Mäkelä, Hirvensalo, & Whipp, 2015; Richards, Wilson et al., 2019). The realities of APE teachers’ jobs, which may include heavy student caseloads and an itinerant status, may further increase emotional exhaustion (Ješinová, Spurná, Kudláček, & Sklenaříková, 2014).

Conversely, a supportive environment is more likely to help bind teachers to the workplace as they develop positive interpersonal relationships. These environments promote resilience (Mansfield, Beltman, Price, & McConney, 2012), which is one’s perseverance through stress in social environments (Yoneyzawa, Jones, & Singer, 2011). Whereas seminal research has viewed resilience as an innate quality (Masten & Gramezy, 1985), contemporary scholars view it as a malleable construct that can be developed over time. Accordingly, resilience has been defined as “a dynamic construct that emerges within the interplay between individuals’ strengths and self-efficacy and social environments in which they live and work” (Yoneyzawa et al., 2011, p. 916). Resiliency has been linked with PE teachers’ perceived mattering (Richards, Gaudreault, & Woods, 2017), and can help prevent burnout (Howard & Johnson, 2004).

Collectively, the contexts of the schools in which teachers works are integral for understanding their socialization and work life experiences (Richards, Hemphill, & Templin, 2018). There are also notable differences in how teachers from various disciplines experience their work life, which requires that attention be paid to teachers both within and across disciplinary affiliations (Ball & Lacey, 2012). This is no less true in understanding the different experiences encountered by PE and APE teachers who share some commonalities, but often work with different populations and under different circumstances (Wilson et al., 2017). Little is known, however, about the work life experiences of APE teachers in general (Richards & Wilson, 2019), and less is known about how their experiences compare to those of PE teachers.

In addition, since biological sex is known to be an important factor that influences experiences in the workplace (Macdonald, 1993), it should be considered in filling this gap in the literature. For example, Berg and Lahelma (2010) found that competence of PE teachers who were men was evaluated higher by students and other teachers than that of the women. Other evidence has suggested that PE teachers who are women must learn to navigate and negotiate their role expectations in environments that have been traditionally associated with hegemonic masculinity (Mooney & Hickey, 2012). While less is known about the influence of biological sex related to APE teachers’ experiences, it may be of import since educators who work directly with students with disabilities tend to be largely women (Rice & Goessling, 2005). Taken together, the purpose of this study was to compare the workplace experiences of PE and APE teachers while considering the influence of biological sex. More specifically, this study sought to
understand the extent to which workplace experiences differ regarding: (a) marginalization and isolation, (b) perceived mattering, (c) role stress, (d) resilience, and (e) emotional exhaustion.

**Method**

**Participants**

The participants in this study included 653 inservice teachers who taught APE (n = 233; 35.68%) and PE (n = 420; 64.32%). The APE group was composed of 172 women and 61 men whereas the PE group included 210 women and 210 men. Collectively, the participants had a mean age of 43.38 years (SD = 11.64) and had taught for an average of 17.69 years (SD = 11.28). Participants taught in the U.S. West (n = 84; 12.86%), Midwest (n = 429; 65.70%), Northeast (n = 67; 10.26%), and South (n = 73; 11.18%). They identified as European American (n = 601; 92.04%), African American (n = 18; 2.76%), Hispanic (n = 16; 2.45%), multiple ethnicities (n = 14; 2.14%), Asian American (n = 3; .46%), and Native American Indian (n = 1; .15%). Schools in which the participants taught were in rural (n = 192; 29.40%), urban (n = 193; 29.56%), and suburban (n = 268; 41.04%) areas. Among the APE teachers, just over half were Certified Adapted Physical Education (CAPE) teachers (n = 131; 56.22%). Comprehensive participant information in aggregate and broken up by teacher group is presented in Table 1.

**Participant recruitment**

Participant data for the current study were drawn from datasets that had been collected as part of two larger projects, both of which received Institutional Review Board approval. This project received joint IRB approval from University of Illinois, University of Louisiana at Lafayette, and Old Dominion University (IRB #19284).

**PE teacher sample**

The PE teacher data derived from an investigation into the work role experiences of practicing PE teachers in the Midwest and Western Regions of the U.S. (Richards, Gaudreault, et al., 2018). Participants were recruited using contact information found on publicly available school websites and databases maintained by state departments of education. Physical educators who expressed interest were asked to follow a URL link to an online survey administered via Qualtrics Survey Software. A total of 1,106 physical educators were contacted for participation and 435 (39.33%) completed at least some element of the survey. The responses provided by 15 teachers were dropped, however, because they responded to less than 10% of the survey questions, which brought the final sample to 420 teachers (37.88%). All remaining participants completed the entire survey. In support of face validity, the survey was pilot tested with 40 preservice and inservice PE teachers. Minor modifications were made to improve survey structure and flow, and completion of the survey was estimated to take 20–25 minutes.

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Table 1. Detailed demographic information by teacher group.

<table>
<thead>
<tr>
<th></th>
<th>PE</th>
<th>APE</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological sex</td>
<td>w = 210; m = 210</td>
<td>w = 172; m = 61</td>
<td>w = 382; m = 271</td>
</tr>
<tr>
<td>Age (years)</td>
<td>44.10 (SD = 11.60)</td>
<td>42.08 (SD = 11.70)</td>
<td>43.38 (SD = 11.64)</td>
</tr>
<tr>
<td>Years taught</td>
<td>18.64 (SD = 11.45)</td>
<td>16.01 (SD = 10.88)</td>
<td>17.69 (SD = 11.28)</td>
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<tr>
<td>Ethnicity</td>
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<td></td>
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<tr>
<td>European American</td>
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<td>208</td>
<td>601</td>
</tr>
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<td>1</td>
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<tr>
<td>Region</td>
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<td></td>
</tr>
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<td>West</td>
<td>28</td>
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</tr>
<tr>
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<td>73</td>
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</tr>
<tr>
<td>Suburban</td>
<td>130</td>
<td>138</td>
<td>268</td>
</tr>
</tbody>
</table>

**Note.** PE = physical education; APE = adapted physical education; w = women; m = men.
APE teacher sample

The APE teacher data came from an investigation that focused on job satisfaction and perceived organizational support among inservice APE teachers from all four U.S. census regions (Richards, Wilson, et al., 2019). The APE teachers were recruited through (a) direct e-mails to a listserv of CAPE specialists, (b) forwarded e-mails to graduates of APE teacher education programs, and (c) targeted social media posts. Teachers who were interested in participating followed a URL link to an online survey administered using Qualtrics Survey Software. While the data collection procedures precluded the calculation of a response rate, 305 APE teachers entered the survey, but 45 respondents were automatically removed as they were not currently teaching APE. From the remaining 260, 23 participants (8.85%) completed less than 10% of the survey and were removed from the dataset. All other surveys were completed in full. The final APE teacher sample included 233 participants. The survey was piloted with 22 APE teachers to promote face validity. Subsequently, minor changes were made to improve the user experience and it was estimated that survey completion would require 15–20 minutes.

Study instrumentation

The dependent measures included five previously validated survey instruments, which are described in more detail below. Citations to the validation studies are provided for readers seeking additional information, and internal consistency reliability for the current study is evaluated using both Cronbach’s $\alpha$ and Macdonald’s $\omega$. Further, prior research adopting the constructs included in this study has generally confirmed divergent validity and independence of the constructs, indicating that they do not measure redundant psychological states or experiences (Richards, Gaudreault, et al., 2018; Richards, Washburn, et al., 2019; Richards, Wilson, et al., 2019).

Marginalization and isolation

Gaudreault, Richards, and Woods (2017) developed and validated the Physical Education Marginalization and Isolation Survey (PE-MAIS). The instrument includes separate marginalization and isolation subscales, both of which included five items. Participants responded to the survey items using a seven-point, Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). In the APE sample the wording of questions was slightly modified to reference APE as the work role. Example questions include “in my school, [adapted] physical education is a marginalized subject” (marginalization) and “at times, I feel isolated” (isolation). The PE-MAIS has been previously adopted in studies with PE (Gaudreault et al., 2017; Richards, Gaudreault, et al., 2018). For the PE teacher group, internal consistency was acceptable for marginalization ($\alpha = .75; \omega = .77$) and isolation ($\alpha = .82; \omega = .83$) in the current study. Similarly, support was found for internal consistency reliability for the APE teachers relative to marginalization ($\alpha = .79; \omega = .80$) and isolation ($\alpha = .85; \omega = .83$).

Perceived mattering

Richards et al. (2017) developed and validated the Perceived Mattering Questionnaire-Physical Education (PMQ-PE). The instrument includes separate subscales, consisting of four items each, to measure PE teachers’ perception that they matter (teacher matters) and their discipline matters (APE or PE matters) to others in the school environment. Participants responded to the eight items by indicating the extent to which the prompts reflected their feelings on a four-point, Likert-type scale ranging from 1 (not at all) to 4 (a lot). The wording of the prompts was adjusted for the APE teachers to specifically reference APE as the work role. Example questions included: “how much attention do you feel other people pay to [adapted] physical education at your school[s]?” (APE or PE matters) and “how interested are people, generally, in what you have to say at school?” (teacher matters). The PMQ-PE has been implemented previously with both PE (Richards et al., 2017) and APE teachers (Richards, Wilson, et al., 2019). In the current study, internal consistency reliability was acceptable for the PE teacher group relative to both PE Matters ($\alpha = .88; \omega = .89$) and teacher matters ($\alpha = .87; \omega = .87$). Similarly, internal consistency reliability was acceptable for the APE teachers relative to APE matters ($\alpha = .80; \omega = .82$) and teacher matters ($\alpha = .87; \omega = .88$).

Role stress

The Teacher Role Stress Scale (TRSS; Conley & You, 2009) was used to measure role ambiguity (four items), role conflict (three items), and role overload (two items). Participants responded to the nine items on a seven-point, Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). Example questions included: “I know that I have divided my time properly” (role ambiguity; recode), “I often have to buck a rule or policy to carry out my work” (role conflict), and “there isn’t enough time during my regular workday to do everything that’s expected of me” (role overload). The TRSS has been used previously with teachers across a variety of disciplines (Conley & You, 2009), including PE teachers (Richards, Gaudreault, et al., 2018). In the current study, the internal consistency for role ambiguity ($\alpha = .77$;
role conflict ($\alpha = .91; \omega = .87$) was acceptable among the PE teachers. Similarly, internal consistency reliability was acceptable in the APE teacher group relative to role ambiguity ($\alpha = .72; \omega = .75$), role conflict ($\alpha = .81; \omega = .81$), and role overload ($\alpha = .87; \omega = .91$).

**Resilience**

Resilience was measured using the 10-item version of the Connor-Davidson Resilience Scale (CD-RISC 10; Campbell-Sills & Stein, 2007), which conceptualizes resilience as a unidimensional construct. Responses were set to a five-point, Likert type scale ranging from 0 (not true at all) to 4 (true nearly all the time). An example item included “I can deal with whatever comes my way.” The CD-RISC 10 has been used previously with both PE (Richards, Gaudreault, et al., 2018) and APE teachers (Richards, Wilson, et al., 2019). In the current investigation, the unidimensional resilience construct exhibited adequate internal consistency reliability in both the PE ($\alpha = .87; \omega = .88$) and APE teacher ($\alpha = .89; \omega = .89$) groups.

**Emotional exhaustion**

The nine-item emotional exhaustion subscale from the Maslach Burnout Inventory-Educators Survey (MBI-ES; Maslach, Jackson, & Schwab, 1996) was used to measure burnout. Emotional exhaustion was used as a proxy measure for burnout because it is viewed as a core component and first indicator of burnout (Maslach, 1998). Participants responded to questions related to how often they felt the way implied in the prompt on a seven-point, Likert-type scale ranging from 0 (never) to 6 (every day). An example item included “I feel burned out from my work.” The MBI-ES has been used with teachers across a variety of disciplines, including those who teach PE (Richards, Washburn, et al., 2019) and APE (Richards, Wilson, et al., 2019). In this study, emotional exhaustion exhibited appropriate levels of internal consistency reliability in both the PE ($\alpha = .91; \omega = .92$) and APE ($\alpha = .93; \omega = .94$) teacher groups.

**Data analysis**

All data analyses were conducted using IBM SPSS 25.0. As recommended in the literature (e.g., Tabachnick & Fidell, 2013), the analysis process began with data cleaning and screening. Researchers checked for issues in the data regarding normality, independence, and homogeneity of variance, which resulted in acceptable levels suggesting that the data met the basic assumptions for inferential statistics. After descriptive statistics were computed, internal consistency reliability estimates were calculated and composite scores were developed by averaging all of the items associated with each study construct. Next, preliminary analyses were conducted using a $\chi^2$ test and an independent-samples t-test to examine potential teacher group differences in demographic variables related to biological sex, years taught, geographic location, and ethnicity (i.e., European American vs. Other). Next, the primary analyses began with a $2 \times 2$ (discipline x biological sex) factorial MANCOVA, with teacher group (i.e., PE or APE) and biological sex (i.e., women or men) set as independent variables, to detect group differences across the dependent measures. While this study primarily focused on teacher group and biological sex, years of teaching experience was used as a covariate given that newly inducted teachers may experience workplace stressors differently than more veteran teachers since they must learn to navigate a new sociopolitical environment (Baldwin, 2015).

If a MANCOVA is significant, it is appropriate to analyze, interpret, and report the follow-up univariate, one-way ANCOVA tests (Creswell & Creswell, 2018). Classical statistical theories recommend an adjustment to the family-wise $\alpha$-level when running multiple dependent variable tests to control for increased Type-I error (Tukey, 1977). These approaches have been questioned more recently by statistical rationalists, however, who note that these adjustments are often arbitrary and risk inflating Type-II error (Feise, 2002). In the current study, the rationalist argument was adopted due to the belief that adjusting the family-wise $\alpha$-level can cause errors in interpretation and unnecessarily punish researchers for running multiple, relevant tests (Sinclair, Taylor, & Hobbs, 2013). Accordingly, a $p$-value of .05 was used for all follow-up ANCOVA tests as the criterion for statistical significance. In addition to presenting the relevant $p$-values, partial-$\eta^2$ is presented as a measure of effect size for all MANCOVA and ANCOVA, which Cohen (1988) associates with small (.01), medium (.06), and large (.14) effects.

**Results**

**Preliminary analyses and descriptive statistics**

Preliminary $\chi^2$ and independent-samples t-tests were used to examine potential demographic differences in the composition of PE and APE teacher samples. A $\chi^2$ test revealed a significant difference between PE and APE teacher groups on the basis of biological sex, $\chi^2$
(1) = 3.17, p = .033, as there were more women in the APE group. A significant difference in years taught was also found among groups, t(651) = −2.89, p = .006, with PE teachers reporting an average of over two more years of experience. Given the different approaches to recruiting participants, there was also a significant difference relative to geographic representation across the two groups, χ²(3) = 412.04, p < .001. Specifically, the PE teachers were predominately from the U.S. Midwest (93.10%) whereas the APE teachers were more spread out across the U.S. Census regions. There were, however, no significant differences relative to distribution of ethnicity (European American vs. Other) across the PE and APE groups, χ²(1) = 3.78, p = .052.

Relative to the descriptive statistics, across both teacher groups, the participants perceived that they were moderately marginalized (M = 3.70, SD = 1.21) and moderately isolated (M = 3.77, SD = 1.50) on a 1–7 response scale. The participants reported a moderate to high level of resilience (0–4 response scale; M = 3.21, SD = .53) and low emotional exhaustion (0–6 response scale; M = 2.31, SD = 1.36). The teachers felt moderate levels of PE/APE matters (1–4 response scale; M = 2.54, SD = .77) and teacher matters (1–4 response scale; M = 2.81, SD = .71). Finally, the participants perceived low role ambiguity (M = 2.36, SD = .88), and moderate role conflict (M = 3.48, SD = 1.44) and role overload (M = 4.20, SD = 1.77) on 1–7 response scales. Complete descriptive statistics by teacher group and biological sex are in Table 2.

**Group comparison analysis**

Primary analyses began with a 2 × 2 (discipline x biological sex) factorial MANCOVA with years of teaching experience included as a covariate. The dependent variables included (a) marginalization, (b) isolation, (c) PE/APE matters, (d) teacher matters, (e) role conflict, (f) role overload, (g) role ambiguity, (h) resilience, and (i) emotional exhaustion. The interaction effect between teacher group and biological sex on the dependent variables was not significant, F(9,640) = .83, p = .589; Wilk’s Λ = .988, partial η² = .01. As the MANCOVA did not yield a significant interaction effect, follow-up univariate tests on discipline by biological sex interactions were not explored. There were, however, significant main effects of teacher group, F(9,640) = 19.49, p < .001; Wilk’s Λ = .79, partial η² = .22, and of biological sex, F(9,640) = 2.81, p = .003; Wilk’s Λ = .96, partial η² = .04. Follow-up tests for the significant main effects used one-way ANCOVAs.

Table 3 displays the results of all ANCOVA tests based on teacher group. Follow-up univariate tests revealed significant differences between PE and APE teachers in feelings of marginalization, F(1,648) = 32.48, p < .001; partial-η² = .05, as the APE teachers felt less marginalized (M = 3.33, SD = 1.11) than their PE counterparts (M = 3.90, SD = 1.22). The APE teachers also felt less isolated (M = 3.03, SD = 1.39) than the PE teachers (M = 4.18, SD = 1.40), F(1,648) = 88.18, p < .001; partial-η² = .12. Further, APE teachers believed that their discipline mattered in their respective schools to a greater extent (M = 2.64, SD = .69) than their counterparts believed that PE mattered in theirs (M = 2.48, SD = .80), F(1,648) = 6.08, p = .014; partial-η² = .01. Relatedly, the APE teachers felt like they mattered more (M = 2.96, SD = .66) in their schools than the PE teachers felt in theirs (M = 2.73, SD = .73), F(1,648) = 12.87, p < .001; partial-η² = .02. The APE teachers also reported feeling less emotional exhaustion (M = 1.94, SD = 1.29) than their counterparts (M = 2.51, SD = 1.36), F(1,648) = 27.26, p < .001; partial-η² = .04. Follow-up univariate tests examining differences in teacher role stressors were not significant: role ambiguity F(1,648) = .00, p = .995; partial-η² = .00; role conflict F(1,648) = .37, p = .544; partial-η² = .00; role overload F(1,648) = .11, p = .745; partial-η² = .00.

**Table 2. Means and standard deviations.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Teacher Group</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PE/APE</td>
<td>W/M</td>
</tr>
<tr>
<td>Marginalization</td>
<td>3.90 (1.22)/3.33 (1.11)</td>
<td>3.64 (1.20)/3.77 (1.22)</td>
</tr>
<tr>
<td>Isolation</td>
<td>4.18 (1.40)/3.03 (1.29)</td>
<td>3.66 (1.50)/3.92 (1.49)</td>
</tr>
<tr>
<td>Resilience</td>
<td>3.23 (1.53)/3.17 (1.53)</td>
<td>3.17 (1.54)/3.26 (1.51)</td>
</tr>
<tr>
<td>PE/APE Matters</td>
<td>2.48 (1.80)/2.64 (1.69)</td>
<td>2.58 (1.76)/2.49 (1.77)</td>
</tr>
<tr>
<td>Teachers Matters</td>
<td>2.73 (1.73)/2.96 (1.66)</td>
<td>2.81 (1.73)/2.81 (1.70)</td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>2.51 (1.36)/2.94 (1.29)</td>
<td>2.32 (1.33)/2.29 (1.41)</td>
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<tr>
<td>Role Ambiguity</td>
<td>2.34 (1.49)/2.39 (1.86)</td>
<td>2.38 (1.90)/2.32 (1.84)</td>
</tr>
<tr>
<td>Role Conflict</td>
<td>3.44 (1.44)/3.55 (1.44)</td>
<td>3.44 (1.39)/3.52 (1.50)</td>
</tr>
<tr>
<td>Role Overload</td>
<td>4.12 (1.74)/2.33 (1.82)</td>
<td>4.43 (1.73)/3.87 (1.78)</td>
</tr>
</tbody>
</table>

Note. PE = physical education; APE = adapted physical education; w = women; m = men.

**Table 3. Effect size results for dependent variables based on teacher group.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Partial-η²</th>
<th>95% CI for Partial-η²</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marginalization</td>
<td><strong>.05</strong></td>
<td>.02, .08</td>
<td>Small</td>
</tr>
<tr>
<td>Isolation</td>
<td>.12</td>
<td>.08, .17</td>
<td>Medium</td>
</tr>
<tr>
<td>PE/APE Matters</td>
<td>.01</td>
<td>.01, .03</td>
<td>Small</td>
</tr>
<tr>
<td>Teacher Matters</td>
<td><strong>.02</strong></td>
<td>.01, .05</td>
<td>Small</td>
</tr>
<tr>
<td>Role Ambiguity</td>
<td>.00</td>
<td>.00, .00</td>
<td>Negligible</td>
</tr>
<tr>
<td>Role Conflict</td>
<td>.00</td>
<td>.00, .01</td>
<td>Negligible</td>
</tr>
<tr>
<td>Role Overload</td>
<td>.00</td>
<td>.00, .01</td>
<td>Negligible</td>
</tr>
<tr>
<td>Resilience</td>
<td>.00</td>
<td>.00, .02</td>
<td>Negligible</td>
</tr>
<tr>
<td>Emotional</td>
<td>.04</td>
<td>.02, .07</td>
<td>Small</td>
</tr>
<tr>
<td>Exhaustion</td>
<td><strong>.00</strong></td>
<td>.00, .00</td>
<td>Negligible</td>
</tr>
</tbody>
</table>

Note. PE = physical education; APE = adapted physical education; 95% CI = 95% confidence interval for the effect size.

* p ≤ .05, **p ≤ .01, ***p ≤ .001.
Similarly, levels of resilience were not significantly different, $F(1,648) = 1.76, p = .185$; partial-$\eta^2 = .00$. Regarding the effect of biological sex, follow-up tests only revealed significant differences in role overload, $F(1,648) = 14.80, p < .001$; partial-$\eta^2 = .02$, with the women feeling more overloaded ($M = 4.43, SD = 1.73$) than their counterparts ($M = 3.87, SD = 1.78$).

**Discussion and conclusions**

Grounded in role socialization theory (Richards, 2015), the purpose of this study was to compare the workplace experiences of PE and APE teachers while considering the influence of biological sex. Several significant differences among the dependent measures were detected between teacher groups, which included marginalization and isolation, perceived mattering, and emotional exhaustion. It is important to remember that, while statistically significant differences were found among these variables, some of those differences had small effect sizes, which should temper assumptions of practical significance. Nonetheless, the APE teachers felt less marginalized in their workplaces than their PE counterparts. This runs counter to what was hypothesized based on Wilson et al. (2017) discussion of the APE teacher socialization process. The APE teachers may have perceived less marginalization because federal legislation has mandated that PE, specially designed if necessary (i.e., APE), be provided to all students with disabilities (Individuals with Disabilities Education Improvement Act [IDEIA], 2004), and perhaps serves as sociopolitical clout. What should not be lost, however, is that both teacher groups still reported a moderate level of marginalization, which is in concert with the larger body of PE research (Laureano et al., 2014). Specific to APE marginalization in the workplace, APE teachers have reported issues related to facility and equipment use, attitudes of paraeducators, caseload and class sizes, and feelings of disrespect and disregard (Hodge & Akuffo, 2007). Interestingly, there is also some evidence (Wilson & Richards, 2019) that PE teachers may marginalize APE teachers through inappropriate pedagogical practices and beliefs.

The APE teachers reported feeling less isolated than their counterparts, which may seem surprising, especially given that research has highlighted APE teachers’ concerns related to the itinerant nature of their jobs (Hodge & Akuffo, 2007). However, the APE teachers in this study also carried higher perceptions of mattering, which aligns with role socialization theory (Richards, 2015) in that mattering has shown to be important in reducing perceived isolation (Richards et al., 2018). Collectively, both groups of teachers still felt moderately isolated from the rest of their respective schools. Such feelings could have stemmed from physical isolation (e.g., gymnasium is located away from main part of school) or intellectual isolation if they do not have regular contact and time to collaborate with teaching colleagues (Templin, Padaruth, Sparkes, & Schempp, 2017). The specific nature of APE teachers’ responsibilities as it relates to feelings of isolation requires additional exploration.

The APE teachers in this study felt like APE mattered more and that they, as teachers, also mattered more in their respective workplaces. This finding is aligned with PE research (Richards, Washburn, et al., 2019) that suggests perceived mattering reduces marginalization, and helps explain the lower, albeit still moderate, levels of marginalization reported by the APE teachers. Again, the presence of special education federal law (i.e., IDEIA, 2004) may play a role in why APE teachers perceive themselves and their subject as mattering more in the eyes of others. Further, it is possible the APE teachers feel as if they matter more because they work intensely with specific students and may perceive making more of a difference. The APE teachers’ higher perceived mattering may also be related to the unique personal characteristics of individuals who are initially attracted to a career in APE, which may lead them to interpret workplace socialization differently than PE teachers (Richards & Wilson, 2019; Wilson & Richards, 2019).

Though both teacher groups felt low levels of emotional exhaustion, APE teachers perceived significantly less than their PE counterparts. Prior PE research (Richards, Washburn, et al., 2019; Skaalvik & Skaalvik, 2011) has highlighted the inverse association between perceived mattering and emotional exhaustion, which may help explain why the APE teachers in this study reported higher levels of perceived mattering. Emotional exhaustion may also be increased by workplace experiences such as marginalization and isolation (Mäkelä et al., 2015; Richards, Washburn, et al., 2019). The generally low levels of emotional exhaustion reported in this study is important, especially given its link to burnout and early career attrition (Mäkelä et al., 2014; Richards et al., 2019).

While some differences in workplace experiences were detected, the results also indicated several similarities among the PE and APE teachers as there were no statistical differences among teacher groups related to role stress or resilience. Consistent with PE teacher research (Richards, Templin, Levesque-Bristol, & Blankenship, 2014), the participants perceived low role ambiguity and moderate role conflict. This may
help account for the lower levels of emotional exhaustion across both teacher groups, as role ambiguity and role conflict have been found to correlate positively with emotional exhaustion (Lee & Ashforth, 1996). The teachers in this study also reported moderate role overload, suggesting that they, at times, struggled with the performance expectations of their jobs given the available time and resources. Interestingly, the only significant difference by biological sex was role overload. The PE and APE teachers who are women reported greater levels of role overload than the men, which may be reflective of a social and workplace environment that tends to be male-dominated (Mooney & Hickey, 2012). Finally, regarding resilience, PE and APE teachers reported moderate-to-high levels, which is consistent with another of this study’s findings, as perceived mattering has been found to associate positively with resilience (Richards et al., 2017). This finding is important for teachers, as resiliency can help prevent burnout (Howard & Johnson, 2004) and increase workplace satisfaction and job retention (Day & Gu, 2010).

Though the presence of special education legislation may have had some protective effect against marginalization, isolation, and emotional exhaustion and for perceived mattering, the subjective theories and predispositions of the APE teachers in this study may have also played a role. Sherrill (1982) described PE teachers as generally focused on fitness and motor proficiency and APE teachers as more invested in “self-actualization, particularly as it relates to self-concept, peer acceptance, socialization, and perceptual motor functioning” (p. 1). Role socialization theory (Richards, 2015) can help explore this phenomenon further. For example, recent research (Park & Curtner-Smith, 2018; Richards & Wilson, 2019) has shown that, during their formative years, APE teachers have impactful socialization experiences with individuals with disabilities, which can act as a powerful recruitment mechanism for future enrollment in APE teacher education programs. Once in teacher education, APE teachers may be more likely to adopt innovative and student-centred practices espoused by the program faculty because of their limited prior experiences with APE (Wilson & Richards, 2019). In contrast, many PE teachers who enter into PE teacher education programs, come in with well-formed subjective theories and a belief that teaching physical education can be an avenue into their true passion for coaching extracurricular school sports (Curtner-Smith, 2017). Collectively, it is possible that different recruitment mechanisms draw PE and APE teachers into the respective fields, which may help to explain some differences in how they respond to stressors in the workplace. This possibility should be examined more completely in future research.

Based on the collective findings of this study, several practical implications for preservice and inservice teacher preparation may be suggested. First, and aligned with guidelines in general teacher education (Mansfield, Beltman, Bradley, & Weatherby-Fell, 2016), PE and APE teacher education programs should emphasize training that prepares preservice teachers to navigate the complex, sociopolitical realities of teaching a marginalized subject area. This training could include the development of relational skills that will allow greater senses of resiliency and perceived mattering in the workplace (Richards, Wilson, et al., 2019). For inservice PE and APE teachers, administrators should seek to create supportive school cultures that recognize the value of PE and APE, which have shown to reduce feelings of marginalization and isolation in APE teachers (Park & Curtner-Smith, 2018) and may improve teacher job satisfaction (Richards, Hemphill, et al., 2018). Practically, this could mean including the teachers, especially itinerant APE teachers, in meetings concerning school-wide decisions.

While this study makes an important contribution to the literature, several limitations should be acknowledged. The differences in participant sampling methods between the PE and APE teacher groups must be considered. It is reasonable to suggest that these divergent participant sampling methods may have influenced the findings of the study. Since APE teachers must have been either active with APE-related social media or a CAPE to access the survey, they may be more inherently passionate about the field, therefore feeling, for example, as if they as teachers and their discipline matter more. Further, the APE teachers were relatively well spread out across the four U.S. Census regions whereas the PE teachers were predominately from the U.S. Midwest. It is possible that geographic differences, such as the interpretation and implementation of federal or state laws that impact APE, may have influenced the teachers’ responses. To this end, future analyses may need to consider multi-level models where teachers are nested within regional sites and school type (i.e., rural, suburban, urban). Readers must take these participant characteristics and sampling methods into account when attempting to generalize these results to broader populations of PE and APE teachers. Further, an inherent limitation of survey research is the effect of social desirability, which may influence participants to report scores that align with what researchers want. However, the online survey methodology was used to recruit a substantial corpus of participants in an economically efficient manner.
Building upon this exploratory study, the unique stressors of APE teachers need to be examined further. Rigorous investigations that focus specifically on why APE teachers feel less isolated than PE teachers may help better explain this study’s findings. Relatedly, additional research into how APE teachers experience marginalization would expand on this work and the work of Wilson and Richards (2019) and Park and Curtner-Smith (2018). Further study into the influence of special education law (i.e., IDEIA) as a potential protective factor for APE teachers in the U.S. may also be valuable. This work could compare the experiences of APE teachers across different U.S. Census regions, and relate these findings to the experiences of APE teachers in other developed countries without laws that support special education. Regarding the influence of biological sex, research into role overload among women who teach PE and APE may yield additional insights into how sex plays a part in teacher role stress. Subsequent scholarship in these areas should also seek to contextualize this study’s findings by adopting an in-depth qualitative approach that targets these teachers’ perceptions of isolation, marginalization, and mattering. Ultimately, while understanding the unique role socialization of APE teachers is important, what should not be lost is Sherrill’s (1982) sentiment that good PE is APE in the sense that both teacher groups are charged with teaching students in physical activity settings, and that such instruction should be modified based on the needs of all students. This sentiment should underlie future exploration into the workplace experiences of APE teachers.

What does this article add?

This research comparing the socialization experiences of PE and APE teachers in the workplace is among the first of its kind. Collectively, this study’s findings both relate to and extend role socialization theory (Richards, 2015). To this end, this work builds upon previous scholarship (Wilson et al., 2017) by adding a more nuanced understanding to what parts of the workplace socialization process are experienced differently and similarly between PE and APE teachers. Of particular interest may be a deeper exploration of the humanistic motives that may underlie APE teachers’ predispositions. This work also provides the foundation for other follow-up studies, which will further the field’s understanding of how PE and APE teachers perceive their workplace environments.

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