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The Evolving Demands and Resources of Live Entertainment: The Development of a Job Demands Resources Sport (JDRS) Model

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Utilizing the job demands resource (JDR) model, as a basis to learn and better understand the workplace experience of employees in live entertainment, we developed a model specific to sport. Through a three-stage process, the scale was measured and validated with collegiate sport employees. The first stage included subject matter experts (n = 69) openly listing job demands and resources in their workplace, then the second stage included two samples of employed graduate students (sample one: n = 101; sample two: n = 112), and finally phase three included two samples of collegiate sport employees (sample one: n = 249; sample two: n = 239). Based on the results, a job demands resources sport (JDRS) model was developed with nine of the 10 job demands relating to burnout, and all seven job resources relating to both work engagement and burnout. Theoretically and practically, the JDRS model will help sport employees and organizations identify opportunities to reduce burnout and increase engagement so they may better serve stakeholders.

Keywords: sport workplace; burnout; engagement; college athletics

Introduction

The relationship between employee well-being and job characteristics is complex and continues to evolve as the marketplace becomes more global, technology advances, and work structures change. Introduced in 2001, the most cited framework in occupational health is Demerouti and colleagues' job demands resources (JDR) model. The JDR model has revealed how job characteristics may lead to employee well-being and in turn influence job performance. While working conditions are specific to every occupation, the central idea of the JDR model is that working conditions can generally be categorized as either *job demands* or *job*

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resources (Bakker & Demerouti, 2007). Strains occur when an imbalance exists between job demands on the individual and the job resources (or lack thereof) to cope with such job demands (Bakker & Demerouti, 2007; Demerouti et al., 2001).

Job demands and resources have changed significantly as a result of alteration in work organization and work design. Recently, crises like COVID-19 abruptly thrusted organizations around the world to embrace changes in how, when, and where work was conducted (Malhotra, 2021; Van Steenbergen et al., 2018). In addition to essential personnel, live entertainment employees, particularly in sports, were some of the first to return to in-person work (see LoRè, 2020). Two years into the crises, Weaver (2022) called for a reinvention of the sport workplace due to the sheer exhaustion, disengagement, and burnout affecting the daily lives of sport employees.

For two decades, JDR researchers have conducted research across the world studying industries from public service to technology (Lesener et al., 2019; Schaufeli et al., 2009); however, only one study has focused on the sport industry. Although Richardson and McKenna (2020) specifically focused on the experience of former professional athletes, the livelihoods of sport employees who sell, market, produce, and manage the live entertainment experience are still unknown. With the demanding stakeholder groups, unfavorable work schedules, and time demands that encourage extreme pressures to perform competitively, engagement in high-volume travel, production of highly commercialized live entertainment, and long non-traditional hours (Dixon & Bruening, 2005; Hall et al., 2010; Weaver, 2022) the sport landscape is ripe to extend and explore the JDR model. Although Schaufeli and colleagues (2009) believe the JDR model is applicable "irrespective of occupation" (p. 894), we argue that the live product of competition seven days a week combined with multi-media rights dictating when games will be played, and the constant job mobility of talent having to move from city to city necessitates sport managers utilize a sport-specific JDR model. As a form of entertainment, sport is played live and broadcasted through multi-media platforms; however, even in a time of changing media landscape, many sport organizations do not own their own channels, so the time of the game, and sometimes the day, are dictated by their multi-media rights deals meaning sport employees are at the discretion of the media company not their employer (Leiker, 2021).

With this in mind, the current study not only addresses a gap in the literature, but it also extends the research by creating the first custom reliable tool to measure job demands and resources in the sport landscape. The overall objective of the study was to create a job demand resource sport (JDRS) model that could be used by sport employees and organizations in an effort to better understand the experience of employees in the sport workplace.

Literature Review

To help understand the manifestation of job demands and resources in the context of sport, the study draws from sport workplace literature specifically drawing more from the collegiate sport literature, then introduces the JDR model and JDR scholarship, revealing the evolution of the model and the need for the model in sport.

Sport as a Distinct Context

Although research examining employee workplace experiences spans numerous industries (e.g., Demerouti et al., 2001; Lesener et al. 2019; Schaufeli et al., 2009), the sport industry provides a distinct context. Employees of sport organizations commonly face high workplace demands including constant media attention, long hours, multiple live events, heavy travel schedules, career mobility, stakeholder scrutiny, and extreme pressure to influence young adults to perform whether they are athletic administrators, coaches, athletic trainers, or advisors (Darvin, 2020; Eason et al., 2019; Graham & Smith, 2022; Hatfield & Johnson, 2012; Mazerolle et al., 2008; Morrow & Howieson, 2018; Rubin, 2017; Rubin & Huml, 2023; Schenewark & Dixon, 2012; Smith et al., 2021; Taylor & Wells, 2017; Weight et al., 2021). Most recently, these demands have been exacerbated because of the COVID-19 pandemic, newly negotiated multimedia deals that often dictate the time and day of competition, and conference realignments that increase distances traveled for competitions (Paule-Koba, 2022).

Depending on the commercialization, working in sport may also differ contextually. Some may assume working in sport is the same regardless of level; however, that is not the case as there are nuanced differences in professional sport just as there are in intercollegiate sports (Wakefield, 2014). There are distinctions between the two, particularly regarding location, number of sports offered, and approval process. The National Collegiate Athletic Association (NCAA) has 1,066 member institutions, inclusive of 340 Division I institutions, distributed across the US (NCAA, 2022). As such, for career mobility within the NCAA Division I employees would have to leave the city and state to find an opportunity in the same industry. Additionally, the approval process for a non-for-profit coeducational model is intricate. Finally, collegiate space employees must serve multiple sports simultaneously. For example, for an institution like Harvard University, which offers 42 sports (Harvard, 2022), employees must serve, market, sell, coordinate facility usage and commercial travel for multiple teams year-round.

Constant Competition in Sport

The additional pressure of employees within the sport industry is a win-at-all-costs mentality, which can create an environment where employees are expected to prioritize work over everything, including their personal lives (Burton & Lieberman, 2017; Taylor et al., 2019, 2021). The overwork climate present in the industry, coupled with the pressures that exist within athletic departments to win and generate revenue can create an environment wherein veteran employees express regret about their decision to stay in the industry (Weight et al., 2021); citing missed experiences with family and friends, a lack of outside hobbies, and declining well-being. Much of the research that examines employee commitment and engagement focuses on ways to increase these employees' behaviors as the demands of employees in the sport industry are copious (Cunningham et al., 2005; Kent & Chelladurai, 2001; Turner & Chelladurai, 2005). However, work on the relationship between work engagement and addiction has found there is a "tipping point" where positive work engagement

turns to negative work addiction (Huml et al., 2021), suggesting a focus on over engagement may be problematic. Further, recent work by Taylor and colleagues (2019) illustrates that employees who possess high levels of workaholism (e.g., working excessive hours, taking on additional, uncompensated duties) are more likely to experience burnout. The commitments and expectations (e.g., workplace cultures) that come with these positions, coupled with the strain and ability of employees to repress the effects of these stressors may leave employees with few resources to help navigate the time demands of their professional duties and their personal/family lives (Bruening & Dixon, 2007; Dixon & Bruening, 2005; Dixon et al., 2008; Schenewark & Dixon, 2012).

Sport Identity

Sport employees have been found to have team identification, pride, and passion in their work not found in other industries (Swanson & Kent, 2015, 2017). The higher levels of team identification have impacted on their work motivation and organizational commitment (Anagnostopoulos et al., 2016; Oja et al., 2015; Swanson & Kent, 2015, 2017), which are both recognized positive outcomes of JDR. Specifically investigating how job resources such as community support, colleague support, professional development, open communication, or work-life flexibility may help increase sport employees' motivation, commitment, or engagement supports extension the JDR and sport identity literature.

Job Demands Resources (JDR) Model

Originally developed in 2001, Demerouti and colleagues (2001) devised the JDR model to explain the connection between job characteristics and employee well-being, specifically identifying the stress factors as *job demands* and *job resources*. Demands are the "physical, social, or organization aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs" (Demerouti et al., 2001, p. 501). Prevalent demand examples include performance pressure, time constraints, role conflicts, or workload. A decade into the line of research, Crawford et al. (2010) expanded the job demand definition and differentiated between challenging and hindering demand. Challenging job demands help promote an employee's growth and have been perceived to be opportunities to learn, whereas hindering job demands may impede an employee's growth and have been perceived as barriers (Crawford et al., 2010).

Contrary to demands, resources in the JDR model can be physical or social aspects of the job that allow a person to achieve their work goals, that help reduce psychological and physiological job demands, or that stimulate one's growth and development (Bakker & Demerouti, 2017). Several resources like job autonomy, flexibility, supportive colleagues, and supportive supervisors have had positive effects on employees' workplace experience (Bakker et al., 2007; Mauno et al., 2006). In general, most job resources foster positive organizational outcomes (Bakker & Demerouti, 2017) such as workplace engagement (Xanthopoulou et al., 2007a), organizational commitment (Hakanen et al., 2008; Richardsen et al., 2006),

self-efficacy (Richardsen et al., 2006), and employee well-being (Law et al., 2011; Xanthopoulou et al., 2007a).

The Evolution of the JDR Model

The earliest JDR research focused on the challenging aspects of work health. The central health indicator within the JDR model is burnout and is most often referenced as exhaustion. For example, Demerouti and colleagues (2001), revealed exhaustion occurred when a work-related goal required additional effort due to the presence of excessive job demands. Likewise, a lack of job resources hinders work-related goals and leads to disengagement. In short, burnout is mainly predicted by job demands, but also by a lack of job resources, whereas engagement is exclusively predicted by available job resources (Schaufeli & Bakker, 2004).

Examining the JDR model has been a salient endeavor for the past two decades. Stemming from the Demerouti and colleagues' original conception in 2001, Richardsen et al. (2006) evaluated the work of public service employees (i.e., police officers) and found that work engagement partially mediated the effects of individual characteristics, job demands, and job resources on organizational commitment and self-efficacy. By 2007, several researchers began exploring several other occupations, industries, and buffers indirectly affecting JDR. For example, in the technology industry Xanthopoulou and colleagues (2007a) revealed that personal resources (1) moderate the relationship between job demands and exhaustion, (2) mediate the relationship between job resources and work engagement, and (3) relate to how employees perceive their work environment and well-being.

Furthermore, Xanthopoulou et al. (2007b) discovered that job resources were stronger buffers of the relationship between emotional demands/patient harassment and burnout, compared to the relationship between workload/physical demands and burnout of those in the technology industry. In the public service industry, Halbesleben and Bowler (2007) extended Richardson and colleagues (2020) work and revealed that motivation mediates the emotional exhaustion–job performance relationship. Additionally, after evaluating teachers Bakker et al. (2007) suggested that job resources act as buffers and diminish the negative relationship between pupil misbehavior and teachers' work engagement. For example, cynicism mediates the relationship between job resources and performance suggesting that working conditions influence performance particularly through the attitudinal component of burnout (Bakker et al., 2008). That same year, Hakanen and colleagues (2008) evaluated the dentistry industry and revealed that job resources influenced future work engagement, which in turn, predicted organizational commitment, whereas job demands predicted burnout over time, and in turn predicted future depression. Van den Broeck and colleagues (2010) then extended the work in the public service industry to include customer service industry and revealed that job hindrances are associated positively with exhaustion (i.e., the main component of burnout) and negatively with vigor (i.e., a component of work engagement).

In the customer service industry, Van Jaarsveld and colleagues (2010) discovered customer incivility toward employees is related to employee incivility

toward customers through job demands first and then emotional exhaustion. Then, Law and colleagues (2011) broadly examined Australian income earners working in the private, government, and non-government sectors. They found the psychosocial safety climate as a lead indicator of workplace psychosocial hazards (high demands, low resources), psychological health and employee engagement, and as a potential moderator of psychosocial hazard effects. The motivations of school board employees were studied by Fernet et al. (2013) and they revealed specific job demands and resources are involved in both the energetic and motivational processes—given their relationships with psychological resources—and that they distinctively predict burnout components. Continuing in the education industry, Mérida-López et al. (2019) discovered emotional intelligence buffers the effect of emotional demands on work engagement through self-appraised stress of educators. Most recently in higher education, Barthauer et al. (2020) revealed doctoral candidates and postdocs' burnout is positively related to career turnover intentions and is a risk to their sustainable careers.

Although several modifications and extensions have been made to the JDR model (e.g., Bakker & Demerouti, 2017; Salmela-Aro & Upadyaya, 2018) three essential assumptions remain unaffected: (1) job demands predict burnout, (2) job resources predict work engagement, and (3) job resources impact burnout. From the public sector to the private sector, the JDR model has been applied and extended in the scholarship; however, one industry that has yet to be understood and is ripe to explore is sport, collegiate sport.

With a global economy worth $500 billion (Statista, 2022a, 2022b), and a projected growth rate of 41% (Statista, 2022b), sport is positioned well for exploration of the demands and resources. Under the umbrella of higher education sits collegiate sport employees, and while researchers have revealed incivility, workaholism, and turnover intentions (e.g., Cunningham et al., 2013; Darvin, 2020; Huml et al., 2021; Smittick et al., 2019; Taylor et al., 2019; Wells et al., 2014, 2020) exist in sports, it has yet to be researched. With the changing landscape of the workforce and business model of sport, most of the recent literature has focused on burnout, workaholism, and work-family conflict (e.g., Huml et al., 2021; Taylor et al., 2019; Weight et al., 2021), so it would be timely to unpack resources need to increase engagement.

The Scale Development Process: Method and Results

The scale development process was informed by Spector (1992) who recommends understanding the construct(s), designing the scale, pilot testing the items, administering the items and running item analyses, and validating and norming the scale. We followed this process in three stages involving one qualitative data collection ($n = 69$[1]) and four quantitative data collections ($n_{total} = 696$). Stage 1 was determining the scale content, during which the research team used a general

[1] The sample size is in the ballpark of other publications using qualitative data to inform scale development (e.g, $N = 10$ in Darvin et al., 2021, 2024, $N = 116$ in Gray et al., 2020). Our aim was to recruit a sufficiently large sample to identify common demands and resources in the collegiate sport industry for scale development. We acknowledge that we may not have reached saturation, where additional data would no longer generate new themes. It is likely that sampling more collegiate sport employees would reveal additional demands and resources. However, our goal was not to create an exhaustive list but rather to develop a measure of common demands and resources that can aid researchers.

inductive approach to identify the specific constructs (i.e., job demands and job resources in the collegiate sports industry) based on qualitative data from subject matter experts (SMEs; i.e., full-time collegiate sports employees). Stage 2 was item development and refinement, which involved designing the scale, pilot testing the items, administering the items, and running item analyses. Stage 3 involved running confirmatory analyses and examining validity evidence. The three-stage process of developing and validating the JDRS measures is summarized in Figures 1 and 2 ans well as described in depth below.

Stage 1 Method: Determining Scale Content

The first stage of scale development is gaining a clear understanding of the construct(s) the scale is intended to measure (Spector, 1992). As described in the introduction, existing literature suggests that sport employees face a host of job demands (e.g., long hours, heavy travel) and job resources (e.g., community support, work-life flexibility). To gain a deeper understanding of the job demands and resources faced by employees in the collegiate sports industry, a qualitative study was conducted to capture firsthand insights from subject matter experts (i.e., employees in the field). Seeking input from job incumbents is widely recognized as one of the most effective ways to understand the realities of a profession (Spector, 2021). Qualitative responses from SMEs can help researchers gain a clearer understanding of the constructs to be measured and have been used to inform a variety of scales (e.g., Darvin et al., 2024; Eby et al., 2004; Gray et al., 2020).

With the Job-Demands Resources Model as the theoretical framework guiding the scale, the research team conducted an open-ended online structured questionnaire. Participants were provided definitions of job demands and resources and asked to report those they had experienced. A thematic analysis approach outlined by Braun and Clarke (2006) was used to identify job demands and job resources from SMEs' responses (detailed in the Analysis section below). This approach helped to ensure that the scale covers constructs important to sports employees, and the scale items were based on real-world experiences.

Participants in Stage 1. Study 1 utilized a convenience sample of collegiate sports employees from the research team's networks. To be eligible, participants had to be at least 18 years old and work full-time in the collegiate sports industry. Recruitment was conducted via email. Between December 2019 and January 2020, 136 employees were invited to participate in a qualitative survey study. Of those, 69 completed the survey.

Participants ranged in age from 22 to 67 ($M = 39.08$, $SD = 12.54$). Approximately 54% of participants identified as male ($n = 37$), 42% identified as female ($n = 29$), and four percent did not report ($n = 3$). Fifty-five participants were White, six were Black or African American, four were multiple races, one was Asian, and three did not report their race. Collegiate sport employees worked at National Collegiate Athletic Association (NCAA) Division 1 colleges and universities ($n = 58$, 84%) as well as NCAA Division II colleges and universities ($n = 8$, 12%). Three employees did not report their university's NCAA division. Approximately one percent of employees

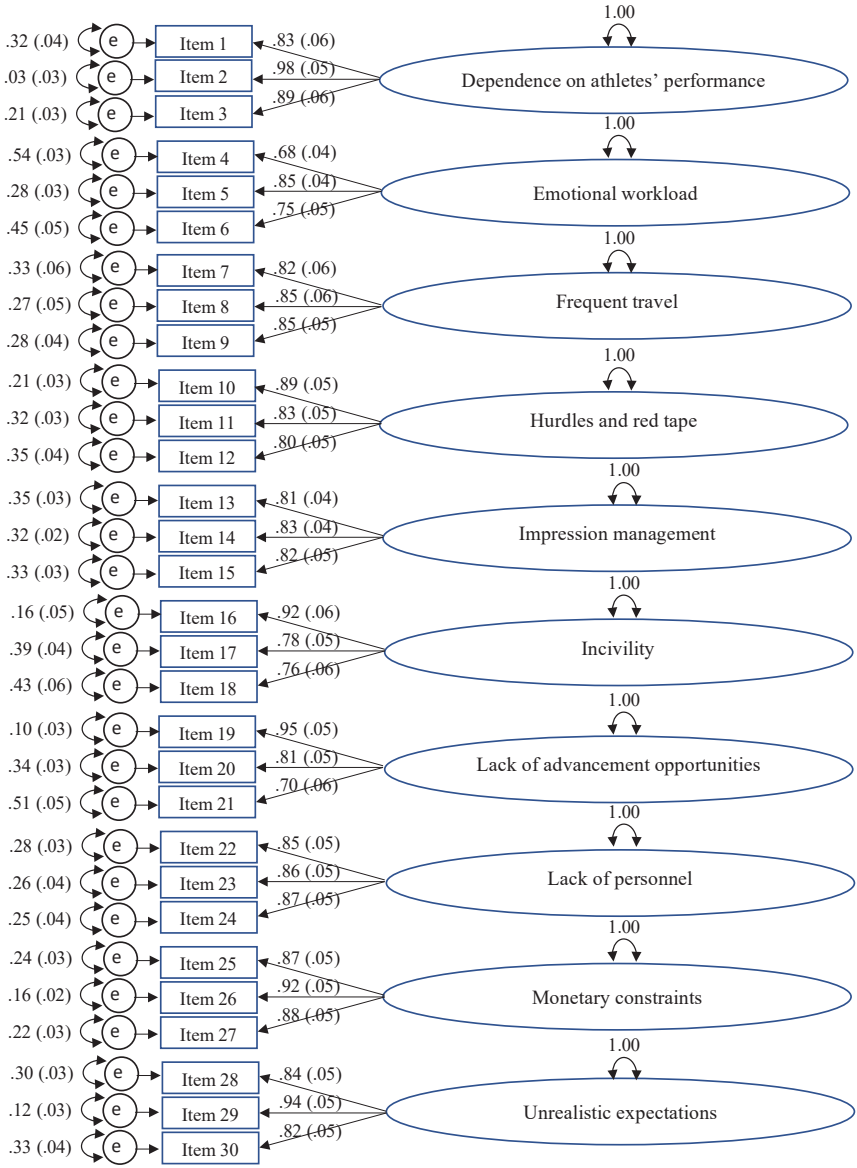

Figure 1. CFA of job demands with standardized parameter estimates (and corresponding standard errors). Latent variables were allowed to correlate. CFI = .96. TLI = .96. RMSEA = .04. SRMR = .05.

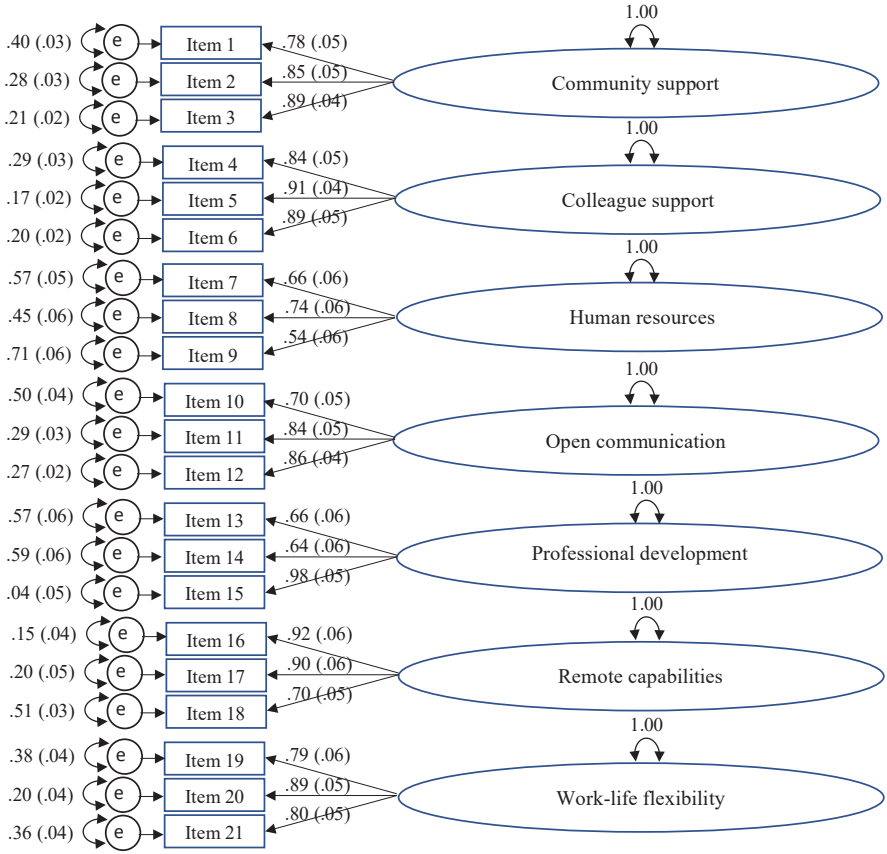

Figure 2. CFA of job resources with standardized parameter estimates (and corresponding standard errors). Latent variables were allowed to correlate. CFI = .96. TLI = .95. RMSEA = .05. SRMR = .05.

worked 20-29 hours per week (n = 1), three percent worked 30-39 hours per week (n = 2), 17% worked 40-49 hours per week (n = 12), 33% worked 50-59 hours per week (n = 23), 26% worked 60-69 hours per week (n = 18), nine percent worked 70-79 hours per week (n = 6), four percent worked 80+ hours per week (n = 3), and six percent did not report (n = 4).

Participants held a variety of job titles, such as Academic Advisor, Athletics Business Manager, Digital Content Manager, Director of Equipment, Head Coach, and Ticket Operations Manager. Because we wanted to examine the experiences of collegiate sports employees broadly, we strived to recruit a sample of employees with various positions in the industry. Considering the distinctive nature of the collegiate sports industry (as described in the Introduction), we anticipated that employees

across different roles would encounter shared demands and resources specific to the industry.

Measures. In this stage two measures, job demands and job resources, were defined and then openly collected. Participants were told that "Job demands are challenging physical, social, or organizational aspects of the job." They were then asked to "Please list at least 5 JOB DEMANDS or CHALLENGES you experience in your position within collegiate athletics." Participants were told that "Job resources are aspects of your position in collegiate athletics that help you achieve work-related goals." Then they were asked, "What RESOURCES help you achieve your work-related goals in collegiate athletics?"

Analysis. Two researchers with doctorates and qualitative research experience, one of whom has worked in collegiate athletics for many years, engaged in a six-step thematic analysis approach outlined by Braun and Clarke (2006): 1) familiarize yourself with the data, 2) generate initial codes, 3) search for themes, 4) review themes, 5) define and name themes, and 6) produce the report. In the first step, two researchers independently immersed themselves in the data by thoroughly reading each response multiple times to gain a comprehensive understanding of the content and identify preliminary patterns. Next, the researchers independently generated initial codes by identifying meaningful segments of data that corresponded to workplace demands (e.g., excessively complex policies) and resources (e.g., parental leave) experienced by collegiate sport employees. These codes served as the foundational elements for theme development. The coding process was inductive, allowing patterns to emerge naturally from the data rather than being imposed by preexisting frameworks. Following the initial coding process, the researchers independently searched for themes by clustering related codes into broader conceptual categories. For instance, codes related to bureaucratic challenges, inflexible institutional policies, and administrative burdens were grouped under a potential theme such as "hurdles and red tape," while codes related to employee benefits and supports were categorized under "human resources."

The two researchers then collaboratively reviewed and refined the emerging themes by comparing their independently derived categorizations. They found considerable alignment in their themes, likely due to the straightforward and structured nature of the responses provided by subject matter experts (SMEs). For example, when respondents described job resources, they frequently mentioned straightforward, concrete examples such as "funding for professional development to attend conferences," "AD support for family leave," and "community support." Unlike interview studies or critical incident analysis, which often require extensive interpretative judgment, the relatively direct nature of the responses minimized ambiguity in theme identification. In cases where discrepancies arose in coding or theme classification, the researchers engaged in collaborative discussions to resolve differences and refine the categorization scheme. Finally, in the fifth step, they refined and finalized the theme names, which are presented in the findings below.

Stage 1 Results: Determining Scale Content

Ten job demands emerged from collegiate sport employees' responses: dependence on athletes' performance, emotional workload, frequent travel, hurdles and red tape, impression management, incivility, lack of advancement opportunities, lack of personnel, monetary constraints, and unrealistic expectations. Table 1 displays the job demands with example responses from employees.

To help collegiate sport employees cope with their unique job demands, eight job resources emerged: community support, colleague support, financial resources, human resources, open communication, professional development, remote capabilities, and work-life flexibility. Table 2 displays the job resources with example responses from collegiate sport employees.

Stage 2 Method: Item Development and Refinement

Stage 1 involved identifying job demands and resources faced by collegiate sport employees. The goal of Stage 2 was to draft an initial pool of scale items based on findings from Stage 1 and narrow those to the top performing items.

Drafting Initial Scale Items. Three researchers were involved in the initial item writing stage. They evenly split the job demands and resources identified in Stage 1, and each researcher independently drafted six to eight items to measure each construct (136 items total). Employees' responses from Stage 1 were used to help generate items, so that the items reflected actual sport employees' experiences. For example, an item written to measure dependence on student-athletes' performance is "My job is dependent on amateurs' performance." The researchers agreed on using a 4-point agreement scale for response ("totally disagree" to "totally agree"), which aligns with the scale points used in existing JDR model research (Demerouti et al., 2001).

After independently drafting items, the three researchers collaboratively reviewed and refined the drafted items to ensure they measured the intended constructs and met characteristics of good survey items (e.g., no double-barreled items, purposeful and straightforward, appropriate for the scale points; Miller & Lovler, 2018; Spector, 1992). The items were then reviewed by two subject matter experts (SMEs) who engaged in a sorting task to help determine if the items measured their intended constructs; the SMEs independently matched each survey item to the construct (i.e., job demand or job resource) they believed it measured. Inter-rater agreement was 83%. For items lacking initial agreement, three researchers reviewed the items and modified them or replaced them so that each item more clearly measured its intended construct.

Administering Initial Scale Items. After drafting and refining an initial pool of items, the next step was to administer the items to sports employees with the goal of reducing the scales to the top performing items based on item reliability analyses and factor analyses. To avoid overburdening participants and encountering issues associated with survey fatigue, the items were split between two surveys: a job demands survey (76 potential items) and a job resources survey (60 potential items). The surveys were administered to two different samples of participants; different

Table 1.
Job stressors in sports management

Job Stressor	Example Participant Responses	Example Existing Literature
Dependence on athletes' performance	"dependency on part-time athletes to influence the nature of my full-time employment" "dependency on amateur athletic performance" "dependency on team performance"	Morrow & Howieson (2018)
Emotional workload	"always being 'on call'" "the idea [that] there is always more that can be done."	Burton & Leberman (2017) Mazerolle et al. (2008) Taylor & Wells (2017) Taylor et al. (2021)
Frequent travel	"making up for time lost while traveling for work" "frequent travel [...] I travel with all the teams I work with [... which] leaves very little time for anything else" "travel weekly for work while still needing to keep up on responsibilities in the office"	Burton & Leberman (2017) Dixon & Bruening (2005) Mazerolle et al. (2008) Taylor & Wells (2017) Taylor et al. (2021)
Hurdles and red tape	"university bureaucracy" "dealing with the red tape that the university has set up that makes it difficult to get things done quickly" "limited ability to accomplish anything because of institutional operations and state procurement process[es]"	
Impression management	"the never-ending struggle for keeping up with the Jones[es]"	Rubin (2017)

Incivility	"underappreciated" "little respect" "gender discrimination"	Rubin (2017) Taylor & Wells (2017)
Lack of advancement opportunities	"lack of internal career advancement" "lack of upward mobility" "no room for advancement"	Taylor & Wells (2017)
Lack of personnel	"poor staff to student-athlete ratio" "not enough essential staff members"	Mazerolle et al. (2008)
Monetary constraints	"salary is not consistent with the amount of time commitment" "budget, budget, and budget"	Rubin (2017)
Unrealistic expectations	"unrealistic expectations from student athletes and fans" "dealing with coaches and their unrealistic expectations" "entitled student-athletes with expectations of being given everything"	Rubin (2017)

Table 2.
Job resources in sports management

Job Resource	Example Participant Responses	Example Existing Literature
Community support	"community support" "support from third parties to augment the experience of people here"	Dixon & Bruening (2005) Taylor & Wells (2017)
Colleague support	"helpful coworkers" "supportive and enjoyable coworkers" "support from supervisors and other coworkers"	Dixon & Bruening (2005) Taylor & Wells (2017)
Financial resources	"funding for recruiting" "supporting wages that retain talented staff" "financial support"	More commonly mentioned as a demand (e.g., Rubin, 2017)
Human resources	"plenty of sick hours and vacation hours when needed" "assistance with hiring" "good benefits"	
Open communication	"the lines of communication are always open" "NCAA communication"	
Professional development	"funding for professional development to attend conferences" "mentorship" "For me, [professional development] is one of my biggest motivators."	Morrow & Howieson (2018)
Remote capabilities	"travel computer to work from home" "flexibility of the job to [...] work from home."	
Work-life flexibility	"flexibility to handle family and personal issues" "[culture that] promotes a healthy work/life balance" "flexibility of the job to be a parent [... and] travel with family (if need be)."	Burton & Leberman (2017) Dixon & Bruening (2005) Schenewark & Dixon (2012) Taylor & Wells (2017)

samples were appropriate because the job demands and job resources scales were conceptualized and analyzed as separate scales.

Participants and Measures

Stage 2 Sample 1. Sports employees who were also graduate students in a sport management program in the southeastern United States were recruited via email and word-of-mouth to take an online survey between September 2020 and March 2021. The survey consisted of the initial pool of job demand items created for this research as described above. Example items include, "My job is dependent on amateurs' performance," "Athletic department stakeholders have unrealistic expectations of me," and "Centralized institutional policies make it difficult to get things done efficiently." Participants responded to the items on a 4-point agreement scale ("totally disagree" to "totally agree").

One-hundred and thirty-eight sport employees began the survey, and the final sample consisted of 101 participants who completed the majority of the survey. Fifty-one of the participants identified as male (51%), 41 identified as female (41%), and nine did not report their sex (8%). Participants ranged in age from 20 to 41 (M = 23.87, SD = 3.28). Sixty-one participants were White, 18 were Black or African American, five were Hispanic, four were multiple races, one was Asian, and 12 did not report their race. Participants held a variety of positions, such as Game Day Operations Assistant, Social Media Manager, Marketing Assistant, and Student-Athlete Enhancement Assistant.

Stage 2 Sample 2. Mirroring the recruitment strategy for Sample 1, sport employees who were also graduate students in a sport management program in the northeastern United States were recruited via email and word-of-mouth between September and October 2020 to take an online survey. The survey consisted of the initial pool of job resource items created for this research as described above. Example items include, "I am able to maintain open lines of communication with my direct supervisor," "Adequate support is provided for wellness programming through human resources," and "My athletic department practices good work-life flexibility." Participants responded to the items on a 4-point agreement scale ("totally disagree" to "totally agree").

One-hundred and sixty-nine sport employees began the survey, and the final sample consisted of 112 participants who completed the majority of the survey. Fifty-six of the participants identified as male (50%), 48 identified as female (43%), and eight did not report their sex (7%). Participants ranged in age from 21 to 50 (M = 25.45, SD = 5.27). Seventy-seven participants were White, 15 were Black or African American, five were Hispanic, five were multiple races, one was Asian, and nine did not report their race. Participants held a variety of positions, such as Ticket Sales Associate, Athletics Trainer, Athletics Communication Assistant, and Fan Experience Intern.

Stage 2 Results: Item Development and Refinement

To examine the dimensionality of the job demands items, an exploratory factor analysis was conducted using principal components in SPSS 27. Fifteen eigenvalues

were greater than 1.0, and the scree plot showed points of inflection at seven and ten factors. Seven, 10, and 15 factors were extracted using principal axis factoring and a promax rotation of the factors. Ten factors had the best fit and were the most easily interpretable. The ten factors aligned with the job demands identified in Stage 1, and the pattern matrix showed that all ten factors had multiple items with factor loadings over .60.

To narrow the scale to the top performing items, items with cross-loadings over .30 were removed, followed by items with the lowest loadings on their primary factor. The result was a clean solution in which all remaining items loaded at least .58 on their primary factor, and no items had cross-loadings above .30. However, two factors, impression management and hurdles/red tape, only had two items each. Three researchers met to collaboratively write one additional item for both factors that aligned with the other items as well as employees' experiences from Stage 1. The other eight factors had three items each. The top 28 performing items and two new items demonstrated promise for a 30-item scale measuring 10 job demands experienced in the sport industry.

Mirroring the analysis strategy for job demands an exploratory factor analysis was conducted in SPSS 27 to examine the dimensionality of the job resource items. Fifteen eigenvalues were greater than 1.0, and the scree plot showed points of inflection at four and seven factors. Four, seven, and 15 factors were extracted using principal axis factoring and a promax rotation of the factors. Because the initial items were written to capture eight resources, we also extracted eight factors. None of the extracted solutions had a clean factor structure, so we reduced the items based on item reliability analyses and then re-examined the factor structure. We examined the item-total correlations and Cronbach's alpha with the item removed for all items written to measure the same construct (i.e., job resource). Items were removed to maximize the internal consistency reliability and breadth of content for each construct until four items remained for each job resource.

A principal components exploratory factor analysis was then performed on the remaining 32 items. Eight eigenvalues were greater than 1.0, so an 8-factor solution was extracted using principal axis factoring and a promax rotation method. The pattern matrix showed that all eight factors had multiple items with loadings over .55, and only two items had cross-loadings above .30. To further narrow the scale to the top performing items, items with the highest cross-loadings and lowest loadings on their primary factor were removed until three items remained to measure each of the eight factors. Every remaining item loaded at least .52 on its intended factor, and only one item had a cross-loading above .30. The top 24 performing items demonstrated promise for a scale measuring eight job resources experienced in the sport industry.

Stage 3 Method: Confirmatory Analyses and Initial Validity Evidence

After narrowing the initial item pool to the top performing items, the next step was to administer the refined scale to sport employees to confirm the factor structure in a new sample and examine initial evidence of validity. Separate surveys were prepared to examine the job demands and resources scales, and they were administered to two samples of collegiate sport employees.

Participants in Stage 3

Stage 3 Sample 1. Emails were sent to 1,554 sport employees who work at universities in one of the NCAA Football Bowl Subdivision (FBS) Group of Five Conferences (e.g., American Athletic Conference, Conference USA, Mid-American Conference, Mountain West Conference, and Sun Belt Conference) between April and June 2021. The research team and research assistants obtained their emails from publicly available lists on university webpages. Emails were sent in batches of 500 until the research team obtained data from over 200 participants Two hundred and ninety-nine employees began the survey, and the final sample consisted of 249 participants who completed the survey. One-hundred and forty-six participants identified as male (59%), 98 identified as female (39%), and five did not report their sex (2%). Participants ranged in age from 23 to 76 (M = 37.85, SD = 11.04). One-hundred and eighty-seven participants were White, 31 were Black or African American, 10 were multiple races, seven were Hispanic, three were Asian, one was American Indian or Alaska Native, and ten did not report their race. Participants held a variety of positions, such as Director of Football Operations, Head Coach of Women's Soccer, Assistant Director for Athletic Performance, and Director of Sports Medicine.

Stage 3 Sample 2. Emails were sent to 5,265 sport employees who work at universities in three of the NCAA FBS Group of Five Conferences between June 2021 and April 2022. Similar to Sample 1, the research team and research assistants obtained their emails from publicly available lists on university webpages. Emails were sent in batches of 500 until the research team obtained data from over 200 participants Three-hundred and seventy-two employees began the survey, and the final sample consisted of 234 participants who completed the survey. One-hundred and seventeen of the participants identified as male (50%), 103 identified as female (44%), and 14 did not report their sex (6%). Participants ranged in age from 22 to 80 (M = 37.39, SD = 11.64). One-hundred and eighty-five participants were White, 22 were Black or African American, five were multiple races, four were Hispanic, two were Asian, and 16 did not report their race. Participants held a variety of positions, such as Director of Athletics and Recreation, Equipment Manager, Athletics Event Coordinator, and Chief of Staff/Senior Women Administrator.

Measures

All measures were administered to both samples, with the exceptions that job demands were only administered to Sample 1 and job resources were only administered to Sample 2.

Job Demands. Job demands were measured with the scale developed in this research. The scale consists of 30 items measuring 10 subscales: dependence on athletes' performance, emotional workload, frequent travel, hurdles and red tape, impression management, incivility, lack of advancement opportunities, lack of personnel, monetary constraints, and unrealistic expectations. The job demands scale items are depicted in Appendix A. Each subscale demonstrated sufficient internal consistency reliability (α = .79 - .93).

Job Resources. Twenty-four items measuring eight job resources were administered to participants. The final scale consists of 21 items measuring seven subscales: community support, colleague support, human resources, open communication, professional development, remote capabilities, and work-life flexibility. The job resources scale items are depicted in Appendix B. Cronbach's alpha of the seven subscales ranged from .68 to .91.

Burnout. Burnout was measured with the seven-item work-related burnout subscale of the Copenhagen Burnout Inventory (CBI; Kristensen et al., 2005). An example item is "Do you feel burnt out because of your work?" Participants responded on a five-point scale (1 = never, 5 = always). The scale demonstrated adequate internal consistency reliability (Sample 1 and Sample 2 α = 90).

Engagement. Participants completed the 9-item Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002). An example item is, "I am enthusiastic about my job." Employees responded on a 7-point scale (1 = never; 7 = always; every day). Cronbach's alpha was .91 in Sample 1 and .92 in Sample 2.

Stage 3 Results: Confirmatory Analyses and Validity Evidence

Job Demands Measurement Model Confirmation

A confirmatory factor analysis was conducted using the 'lavaan' package in R (Rosseel, 2012) to examine the fit of the 10-factor measurement model that emerged during Stage 2. The 10 factors were allowed to correlate, the factor variances were set to one, and maximum likelihood estimation was used. Although the chi-square test was significant, $\chi^2(360) = 535.70$, p = < .01, the other goodness of fit indices suggested a strong model fit. The Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI) were higher than .95 as recommended by Hu and Bentler (1998; CFI = .963, TLI = .956). The root mean square error of approximation (RMSEA) and the standardized root mean residual (SRMR) were lower than the .06 and .08 cutoffs recommended by Hu and Bentler (1998; RMSEA = .044, SRMR = .049). All of the items had standardized loadings above 0.67 on their corresponding factors (.678 – .983). The model with standardized parameter estimates and corresponding standard errors is shown in Figure 1. Item reliability analyses were conducted next, which demonstrated that each subscale had adequate internal consistency reliability (α = .79 - .93).

Providing initial evidence of criterion-related validity, nine of the 10 job demands were positively correlated with burnout, *r*s = .21 - .59, *p*s < .01. Only dependence on athletes' performance was unrelated to burnout $r = .06$, $p > .05$. Five of the job demands were negatively associated with work engagement, *r*s = -.39 - -.16, *p*s < .05, four were unrelated to work engagement, *r*s = -.08 - -.03, *p*s > .05, and dependence on athletes' performance was positively associated with work engagement, $r = .19$, $p < .01$. Correlations and descriptive statistics of job demands are provided in Table 3.

To investigate the relative importance of each job demand to burnout, a relative weights analysis was conducted using a program prepared by Tonidandel and LeBreton (2015). Together, the job demands accounted for 46% of variance in employees' burnout (R^2= .457). In order of most to least variance in burnout explained,

Table 3.
Job demands descriptive statistics and correlations

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Dependence on athletes	2.42	1.01	(.93)												
2. Emotional workload	3.30	.66	.24**	(.79)											
3. Frequent travel	2.05	.97	.36**	.31**	(.87)										
4. Hurdles and red tape	2.65	.80	.07	.25**	.19**	(.87)									
5. Impression management	3.42	.67	-.01	.32**	.13*	.27**	(.86)								
6. Incivility	1.72	.94	.00	.26**	.14*	.33**	.35**	(.85)							
7. Lack of advancement	3.11	.80	.04	.21**	.21**	.25**	.18**	.31**	(.85)						
8. Lack of personnel	3.19	.89	-.01	.22**	.17**	.24**	.18**	.27**	.31**	(.89)					
9. Monetary constraints	2.49	.90	.13*	.22**	.29**	.42**	.16*	.20**	.25**	.44**	(.92)				
10. Unrealistic expectations	2.05	.91	.09	.37**	.31**	.33**	.37**	.59**	.41**	.40**	.41**	(.89)			
11. Burnout	3.19	.87	.04	.52**	.35**	.24**	.21**	.41**	.48**	.37**	.28**	.59**	(.90)		
12. Engagement	5.27	1.11	.19**	-.16*	-.03	-.06	-.08	-.19**	-.39**	-.16*	-.04	-.32**	-.55**	(.91)	
13. Job satisfaction	4.57	1.29	.09	-.32**	-.13*	-.14*	-.17**	-.35**	-.49**	-.20**	-.16*	-.51**	-.63**	.73**	(.89)

the job demands were emotional workload (28.22% of the explained variance), unrealistic expectations (23.29% of the explained variance), lack of advancement (18.68% of the explained variance), frequent travel (9.51% of the explained variance), incivility (9.13% of the explained variance), lack of personnel (5.18% of the explained variance), hurdles and red tape (1.81% of the explained variance), impression management (1.68% of the explained variance), monetary constraints (1.44% of the explained variance), and dependence on athletes' performance (1.05% of the explained variance). Confidence interval tests of significance suggest that the partial effects of emotional workload, unrealistic expectations, lack of advancement, frequent travel, and incivility were significant; the partial effects of lack of personnel, hurdles and red tape, impression management, monetary constraints, and dependence on athletes' performance were not significant.

Job Resources Measurement Model Confirmation

A confirmatory factor analysis was conducted using the 'lavaan' package in R (Rosseel, 2012) to examine the fit of the 8-factor measurement model that emerged during Stage 2. The eight factors were allowed to correlate, the factor variances were set to one, and maximum likelihood estimation was used. Although the chi-square test was significant, $\chi^2(224) = 363.66$, p = < .01, the other goodness of fit indices generally suggested a strong model fit. The CFI was higher than .95 as recommended by Hu & Bentler (1998; CFI = .951), although the TLI was slightly below .95 (TLI = .940). The RMSEA and the SRMR were lower than the .06 and .08 cutoffs recommended by Hu and Bentler (1998; RMSEA = .052, SRMR = .056). All of the items had standardized loadings above 0.55 on their corresponding factors (.558 – 6.718). The model with standardized parameter estimates and corresponding standard errors is shown in Figure 2.

Item reliability analyses were conducted next, which demonstrated that each subscale had internal consistency reliability above .70 (α = .79 - .91), with the exceptions of human resources (α = .68) and financial resources (α = .36). Because Cronbach's alpha of the financial resource subscale was low and financial constraints were measured as a job demand, we decided to remove financial resources from the job resources model. After removing financial resources, we conducted a confirmatory factor analysis to examine the fit of the 7-factor measurement model. Although the chi-square test was significant, $\chi^2(168) = 279.91$, p = < .01, the other goodness of fit indices suggested a strong model fit. The CFI and the TLI were at least .95 as recommended by Hu & Bentler (1998; CFI = .960, TLI = .950). The RMSEA and the SRMR were lower than the .06 and .08 cutoffs recommended by Hu and Bentler (1998; RMSEA = .054, SRMR = .054). All the items had standardized loadings above 0.55 on their corresponding factors (.558 – 1.410).

Providing initial evidence of criterion-related validity, all seven job resources were positively correlated with work engagement, *r*s = .27 - .42, *p*s < .01, negatively associated with burnout *r*s = -.55- -.26, *p*s < .05. Correlations and descriptive statistics of job resources are displayed in Table 4.

Table 4.
Job resources descriptive statistics and correlations

	M	*SD*	1	2	3	4	5	6	7	8	9	10
1. Community support	2.66	.71	(.88)									
2. Colleague support	3.15	.81	.32**	(.91)								
3. Human resources	2.88	.69	.40**	.42**	(.68)							
4. Open communication	3.31	.70	.32**	.72**	.40**	(.83)						
5. Professional development	2.40	.84	.44*	.41**	.44**	.41**	(.79)					
6. Remote capabilities	1.90	.90	.10	.09	.24**	.07	.16*	(.87)				
7. Work-life flexibility	2.72	.84	.31**	.39**	.50**	.41**	.41**	.42**	(.87)			
8. Burnout	2.86	.75	-.34**	-.37**	-.44**	-.31**	-.36**	-.26**	-.55**	(.90)		
9. Engagement	5.38	1.01	.33**	.33**	.27**	.33**	.30**	.33**	.42**	-.58**	(.91)	
10. Job satisfaction	4.54	1.26	.43**	.56**	.41**	.54**	.53**	.21**	.58**	-.62**	.56**	(.88)

To investigate the relative importance of each job resource to work engagement, a relative weights analysis was conducted using a program prepared by Tonidandel and LeBreton (2015). Together, the job resources accounted for 26% of variance in employees' engagement (R^2= .2624). In order of most to least variance in engagement explained, the job resources were work-life flexibility (32.54% of the explained variance), remote capabilities (19.77% of the explained variance), community support (17.15% of the explained variance), open communication (11.34% of the explained variance), colleague support (9.63% of the explained variance), professional development (6.55% of the explained variance), and human resources (3.02% of the explained variance). Confidence interval tests of significance suggest that only the partial effect of work-life flexibility was significant; the partial effects of remote capabilities, community support, open communication, colleague support, professional development, and human resources were not significant.

Discussion

The findings contribute to extending the job demands and job resources literature and specifically better understanding the workplace experience of sport employees. First, our results extended JDR to sport management by validating the JDRS model. Revealing 10 job demand subscales specific to sport employees: dependence on athletes' performance, emotional workload, frequent travel, hurdles and red tape, impression management, incivility, lack of advancement opportunities, lack of personnel, monetary constraints, and unrealistic expectations. Unlike other industries, the commercialization of collegiate sport, particularly with the year-round schedule serving multiple teams, has helped create unrealistic expectations from fans, alumni, donors, administration, students, lawmakers, and beyond. Each stakeholder group sets expectations that may become difficult to meet because they are dependent upon the actions of others, particularly young adult's performance. To meet the growing demand of sport, resources must continue to grow too. Our results revealed seven resource subscales that are critical to sport employees: community support, colleague support, human resources, open communication, professional development, remote capabilities, and work-life flexibility. Being a live entertainment industry, work occurs around the clock, so having the flexibility to come into work late after having worked a game that went into double overtime the night before may be considered a valuable resource. Also, a unique resource for sport was the importance of community support. With some institutions welcoming over 100,000 fans into football stadiums weekly, the outpouring communal partnership with local sponsorships and all-day tailgating symbolizes value and status. Second, our results align with some historical key outcomes of job demands and resources: (1) job demands predict burnout, (2) job resources predict work engagement, and (3) job resources impact burnout. Nine of the 10 job demands we examined related to burnout, and all of the seven job resources we examined related to both work engagement and burnout.

Notably, this research identified and quantified more job demands than job resources in the sport industry. A possible explanation is that negative experiences tend to be more salient and impactful than positive experiences (Baumeister et al., 2001), which may have influenced participants' reports of job demands and resources in Stage 1. Previous research that asked participants to recall a recent, important event similarly found that individuals reported more bad events than good ones (Finkenauer & Rime, 1998). In addition to being larger in quantity, the job demands in this research were more industry-specific than the job resources. This finding may reflect improved recall of negative events (Baumeister et al., 2001); it could also reflect an opportunity to provide sport employees with resources that are better tailored to their unique demands especially as most participants noted working 50 or more hours a week. These resources also do not have to come at a cost for organizations. For example, practitioners could provide more flexible work hours to accommodate the late night or weekend events.

Previous work examining sport industry employees illustrated a lack in available resources, however, much of this research was conducted utilizing qualitative methods with small samples of former professional athletes (Richardson & McKenna, 2020) and women head coaches (Bruening & Dixon, 2007; Dixon & Bruening, 2007). Richardson and McKenna (2020) revealed that due to the demanding nature of the sport industry, particularly the physical and social demands, there was a limited career sustainability. While they focused on the physical demands professional athletes experience our research revealed the social demands of sport employees are alive and well too. For example, in the occupation of coaching, women head coaches were experiencing high levels of work-family conflict because of insufficient resources (Bruening & Dixon, 2007; Dixon & Bruening, 2007). Additionally, findings suggested the experiences of these women head coaches were heavily influenced by work climate and culture (e.g., presenteeism, work hours/travel, women's home responsibilities), indicating structural and social forces not individual choices were most impactful (Dixon & Bruening, 2007). While Dixon and Bruening's (2007) research provided important insights into the experiences of mothers who hold head coaching positions within the college sport industry and several of the themes were utilized to generate items for the current study, the qualitative nature did not allow for generalizability. Additionally, work from Dixon and Sagas (2007) found that perceived organizational supports positively related to the job and life satisfaction of coaches, illustrating how available organizational supports can not only impact an employee's job satisfaction, but also satisfy some socioeconomical needs. These findings are important, as they help explain the importance of providing adequate resources, but again, this sample only included head coaches with families. As such, it was important for our research to expand the scope of inquiry to include all employees mainly on the business side of sport (i.e., administrators, staff, and coaches).

While recent work has started to expand in scope, garnering larger, more diverse samples of college sport employees (e.g., Huml et al., 2021; Taylor et al., 2019; Weight et al., 2021), this research has made important contributions relating to the

work experiences of college sport employees, specifically as it relates to the topics of work engagement, burnout, and work addiction. However, to date those examples have yet to examine the available job resources and job demands in the industry in a quantitative nature. Participants in Weight et al. (2021) described a lack of flexibility, culture of presenteeism, and high levels of required sacrifice necessary to succeed in the industry paired with a lack of "support" utilizing qualitative narratives, but specific resources and demands were not discussed. As such, this is one of the first models dedicated to the specific job resources and job demands of collegiate sport, which is a necessary step in better understanding the work experiences of all sport employees.

In addition to the theoretical contributions, several practical implications stem from the research. Perhaps, foremost, is the importance of sport employees, better yet sport organizations, identifying the specific demands of the work and resources provided to accomplish the work. Explicit measures of job demands and resources were created by sport practitioners and validated by researchers, so both can use either the whole measure to capture job demands and resources broadly, or specific subscales can be used to focus on particular demands or resources. Indeed, working in sport is demanding. Similar to other industries there is no shortage of long hours, heavy travel schedules, and extreme pressure to perform (Morrow & Howieson, 2018; Taylor & Wells, 2017); however, dissimilar to other industries performance is predicated on amateurs' performance and career mobility generally requires relocation, so resources should be identified and allocated to offset the additional pressure to win-at-all-cost. In particular, out of the 10 job demands we examined, emotional workload, unrealistic expectations, lack of advancement, frequent travel, and incivility accounted for the most variance in employees' burnout. These five demands may be especially important for stakeholders to pay attention to. Stakeholders, both internal and external constituents, need to be educated on the operational ecosystem, resource accessibility, resource allocation, and impression management to better manage expectations, individually and collectively. Finally, even prior to the pandemic, employees often found it difficult to maintain boundaries between work and nonwork (Ramarajan & Reid, 2013), and now with the work-life integration and constant connection demanding more than ever, particularly for sport employees (Weaver, 2022), we must acknowledge that of the seven resources measured, work-life flexibility accounted for the most variance in employees' engagement. Knowing sport employees were some of the first to return to work to provide live entertainment, sport organizations and stakeholders once again may be demanding those working in sport to prioritize work over everything (Burton & Lieberman, 2017; Taylor et al., 2021).

Limitations and Future Research

All research has limitations, and these limitations lead to future research opportunities. Being the initial measure and validation of a JDRS model, we focused on conferences in the NCAA FBS group of five because of the sweet spot of resources and demands; however, with the unique amateurism status of collegiate athletics,

the middle-tiered operating budgets, multi-media rights deals, and the demanding stakeholder groups (e.g., donors, alumni, faculty, coaches, student-athletes), future researchers may want to evaluate other sport organizations particularly serving different sectors of the industry (e.g., youth, professional, community). Second, although the demands of collegiate sport employees are unique and specific to the industry, the resources seem more general, leaving room for future researchers to unpack the engagement outcome of sport employees. For example, future researchers could evaluate ways to decrease sport employee burnout and increase sport employee engagement by addressing the demands of the sport industry with resources. Recognizing burnout leads to negative outcomes, whereas job resources foster positive organizational outcomes and individual well-being (Bakker & Demerouti, 2017). Third, the identity of the majority of participants were White and male, and while this is representative of the population working in sport (see Lapchick, 2021), it does not address the intersectionality of identities that may affect one's workplace experience. As such, future researchers should explore how global majority individuals experience job demands and job resources in an occupation where they have been the minority.

Participants in stage 2 of the scale development process were graduate students in a sports management program who were employed part-time in the field. Some researchers have expressed concern that findings utilizing convenience samples of students may not generalize to other samples of employees; however, any sample of workers for which the research is intended to generalize is appropriate (Highhouse & Gillespie, 2009; Landers & Behrend, 2015). While one may be concerned that employed students' experiences may not generalize to other employees, those concerns were alleviated by the replication involving a different sample of NCAA employees. By utilizing multiple different samples of sports employees in this research that yielded similar results, researchers have greater confidence in the generalizability of the findings. Future research would be beneficial to continue examining the new scale with different samples. Specifically, we are hopeful that this scale will be useful for employees throughout the sport industry, including facets such as college sport, professional sports, and the Olympics. However, the majority of samples in this research were collegiate sport employees. More research is needed to determine if the demands and resources also apply to other segments of the sport industry.

Finally, scale development is an ongoing process, and the field would benefit from continued research that examines the reliability and validity of the new measures. For example, future research could investigate test-retest reliability of the new measures by measuring job demands and job resources over time. Future research could also examine convergent and discriminant validity by administering the new measures along with other measures of similar and dissimilar constructs. This research provides initial evidence of the scale's strong psychometric properties. In addition to further investigations of the scale's reliability and validity, future research could also test a wording change to one of the items. In hindsight, the research team acknowledges that the term "amateurs" in one of the job demand subscales is a

poor term for student athletes. The NCAA is moving away from the term, which the authors wholeheartedly support. While the authors cannot change the wording of items that were already administered to participants, future research would be beneficial to examine that subscale with the term "student athletes" or "college athletes" instead. The authors have no reason to suspect that such a wording change would harm the psychometric properties of the scale, and future research would be beneficial to investigate that possibility. Future research can continue to enhance the measures while adding to the understanding of how specific job demands and resources operate in the collegiate sports industry.

Conclusion

Our study, through scale development, was the first dedicated to measuring job demands and job resources experienced by sport employees. While prior research, mainly qualitative in nature, has revealed the high demands of the sport landscape (Bruening & Dixon, 2007; Dixon et al., 2008; Dixon & Bruening, 2005; Hall et al., 2010), our results extend psychology literature (Demerouti et al., 2001) and develop a model specific to the unique industry of sport - the Job Demands Resources Sport (JDRS) model.

Appendix A

Job Demand Measure	Job Demand Items
Dependence on Athletes' Performance 1	My success depends on student-athletes' performance.
Dependence on Athletes' Performance 2	My job relies on the performance of our players.
Dependence on Athletes' Performance 3	My job is dependent on amateurs' performance.
Emotional Workload 1	I am constantly connected to my phone for work.
Emotional Workload 2	I am tied to my work at all times.
Emotional Workload 3	I cannot disconnect from work.
Frequent Travel 1	I have to balance frequent travel with other professional duties.
Frequent Travel 2	I have to make up for lost time spent traveling for work.
Frequent Travel 3	Work travel takes up a lot of my workday.
Hurdles and Red Tape 1	Centralized institutional policies make it difficult for my athletic department to be nimble.
Hurdles and Red Tape 2	Centralized institutional policies make it difficult for my athletic department to be successful.
Hurdles and Red Tape 3	Centralized institutional policies make it difficult to get things done efficiently.
Impression Management 1	Athletic department stakeholders compare our program to other programs.
Impression Management 2	Athletic department stakeholders compare our success to our competitors.
Impression Management 3	Athletic department stakeholders apply pressure to be on par with other programs.
Incivility 1	Athletic department stakeholders have insulted me.
Incivility 2	Athletic department stakeholders have threatened me or my position.
Incivility 3	Athletic department stakeholders have yelled at me.
Lack of Advancement Opportunities 1	Internal advancement opportunities are limited.
Lack of Advancement Opportunities 2	Promotions are limited within my department.
Lack of Advancement Opportunities 3	There are few opportunities for career advancement in my job.
Lack of Personnel 1	My department has less staff than we should.
Lack of Personnel 2	My job is difficult due to understaffing.
Lack of Personnel 3	The number of staff is inadequate in my department.
Monetary Constraints 1	Funding restrictions limit my ability to be effective at work.
Monetary Constraints 2	I cannot hit target objectives with the funding available to me.
Monetary Constraints 3	I do not have enough funding to do my job effectively.
Unrealistic Expectations 1	Athletic department stakeholders have unrealistic expectations of me.
Unrealistic Expectations 2	I am held to unrealistic standards at work.
Unrealistic Expectations 3	My superiors expect me to do the impossible.

Appendix B

Job Resources Measures	**Job Resources Items**
Community Support 1	I am satisfied with the amount of help I receive from our local community.
Community Support 2	My local community creates a sense of belonging.
Community Support 3	The local community supports me.
Human Resources 1	Adequate support is provided for family emergency leave through human resources.
Human Resources 2	Our human resource department offers support if a hostile work environment is present.
Human Resources 3	Our human resources department offers support in the hiring of staff.
Pro Development 1	My athletic department offers funding to pay for professional development opportunities outside of the institution for which I work.
Pro Development 2	My athletic department offers in-house professional development opportunities for employees.
Pro Development 3	My athletic department supports my professional development.
Colleague Support 1	I have opportunities to talk with my coworkers about things that really matter.
Colleague Support 2	I have quality relationships with my coworkers.
Colleague Support 3	My coworkers create a sense of community amongst our department.
Remote Capabilities 1	I am able to work from home, or another remote location, during the academic year.
Remote Capabilities 2	I am able to work from home, or another remote location, during the summer.
Remote Capabilities 3	I am encouraged to work remotely.
Open Communication 1	I am able to maintain open lines of communication with my direct supervisor.
Open Communication 2	I am able to maintain open lines of communication with those in my department.
Open Communication 3	I am able to maintain effective communication with my colleagues.
Work-life Flexibility 1	Employees within our athletic department are able to work a flexible schedule to accommodate non-work responsibilities.
Work-life Flexibility 2	My athletic department practices good work-life flexibility.
Work-life Flexibility 3	I am able to leave work to handle family responsibilities.

References

Anagnostopoulos, C., Winand, M., & Papadimitriou, D. (2016). Passion in the workplace: Empirical insights from team sport organisations. *European Sport Management Quarterly, 16*(4), 385-412.

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology,* 22, 309-28.

Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99*(2), 274-284.

Bakker, A. B., Van Emmerik, H., & Van Riet, P. (2008b). How job demands, resources, and burnout predict objective performance: A constructive replication. *Anxiety, Stress, & Coping, 21*(3), 1-16.

Barthauer, L., Kaucher, P., Spurk, D., & Kauffeld, S. (2020). Burnout and career (un) sustainability: Looking into the Blackbox of burnout triggered career turnover intentions. *Journal of Vocational Behavior*, *117*, 103334.

Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, *5*(4), 323-370.

Braun, V., & Clarke, V. (2014). What can "thematic analysis" offer health and wellbeing researchers? *International Journal of Qualitative Studies on Health and Well-Being*, *9*(1), 26152.

Bruening, J. E., & Dixon, M. A. (2007) Work-family conflict in coaching I: A top-down perspective. *Journal of Sport Management, 21*(3), 377-406.

Burton, L. J. & Leberman, S. (2017). New leadership: Rethinking successful leadership of sport organizations. In L. J. Burton & S. Leberman (Eds.), *Women in sport leadership: Research and practice for change* (pp. 148-161). Routledge.

Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: a theoretical extension and meta-analytic test. *Journal of Applied Psychology*, *95*(5), 834-848.

Cunningham, G.B., Miner, K., &McDonald, J. (2013). Being different and suffering the consequences: The influence of head coach–player racial dissimilarity on experienced incivility. *International Review of Sociology and Sport, 48*, 689-705.

Cunningham, G. B., Sagas, M., Dixon, M., Kent, A., & Turner, B. A. (2005). Anticipated career satisfaction, affective occupations commitment and intentions to enter the sport profession. *Journal of Sport Management, 19*, 43-57.

Darvin, L. (2020). Voluntary occupational turnover and the experiences of former intercollegiate women assistant coaches. *Journal of Vocational Behavior, 116*(Part A), 103349.

Darvin, L., Gray, C., Baker, T., Wells, J., & Holden, J. (2024). Development of the hostility and inclusion in gaming scale (HIGS): A gender-based analysis. *Technology in Society***,** *79***,** 102711.

Darvin, L., Holden, J., Wells, J., & Baker, T. (2021). Breaking the glass monitor: Examining the underrepresentation of women in esports environments, *Sport Management Review, 24*(3), 475-499.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, *86*(3), 499-512.

Dixon, M. A., & Bruening, J. E. (2005). Perspectives on work-family conflict in sport: An integrated approach. *Sport Management Review, 8*, 227-253.

Dixon, M. A., & Sagas, M. (2007). The relationship between organizational support, work-family conflict, and the job-life satisfaction of university coaches. *Research Quarterly for Exercise and Sport, 78*(3), 236-247.

Dixon, M. A., Tiell, B., Lough, N., Sweeney, K., Osborne, B., & Bruening, J. (2008). The work/life interface in intercollegiate athletics: An examination of policies, programs, and institutional climate. *Journal for the Study of Sports and Athletes in Education, 2,* 137- 160.

Eason, C. M., Mazerolle Singe, S., Pitney, W. A., Denegar, C., McGarry, J. (2019). An individual and organizational level examination of male and female collegiate athletic trainers' work-life interface outcomes: Job satisfaction and career intentions. *Athletic Training & Sports Health Care, 12*(1), 21-30.

Eby, L. T., Durley, J. R., Evans, S. C., & Ragins, B. R. (2008). Mentors' perceptions of negative mentoring experiences: scale development and nomological validation. *Journal of Applied Psychology****, 93(2), 358-373.***

Fernet, C., Austin, S., Trepanier, S. G., & Dussault, M. (2013). How do job characteristics contribute to burnout? Exploring the distinct mediating roles of perceived autonomy, competence, and relatedness. *European Journal of Work and Organizational Psychology, 22*(2), 123-137.

Finkenauer, C., & Rime, B. (1998). Socially shared emotional experiences vs. emotional experiences kept secret: Differential characteristics and consequences. *Journal of Social and Clinical Psychology, 17*, 295-318.

Graham, J. A., & Smith, A. B. (2022). Work and life in the sport industry: A review of work-life interface experiences among athletic employees. *Journal of Athletic Training, 57*(3), 210-224.

Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The job demands-resource model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress, 22*(3), 224-241.

Halbesleben, J. R. B., & Bowler, W. M. (2007). Emotional exhaustion and job performance: The mediating role of motivation. *Journal of Applied Psychology, 92*(1), 93-106.

Hall, S. A., Bowers, A. G., & Martin, C. L. L. (2010). An exploratory study of job satisfaction levels of athletic marketing directors at National Collegiate Athletic Association (NCAA) Division I-A institutions. *International Journal of Sport Management, Recreation & Tourism, 6*, 1-17.

Hatfield, L. M. & Johnson, J. T. (2012). A discussion of work-family conflict and related theories in NCAA Division I sports information professionals. *Journal of Contemporary Athletics, 6*(1), 17-31.

Highhouse, S., & Gillespie, J. Z. (2010). Do samples really matter that much? In *Statistical and methodological myths and urban legends* ***(pp. 267-286).***

Routledge.

Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, *21*(5), 967-988.

Huml, M. R., Taylor, E. A., & Dixon, M. A. (2021). From engaged worker to workaholism: A mediated model of athletic department employees. *European Sport Management Quarterly, 21*(4), 583-604.

Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, *3*(4), 424-453.

Kent, A., & Chelladurai, P. (2001). Perceived transformational leadership, organizational commitment, and citizenship behavior: A case study in intercollegiate athletes. *Journal of Sport Management, 15*, 135-159.

Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress*, *19*(3), 192-207.

Landers, R. N., & Behrend, T. S. (2015). An inconvenient truth: Arbitrary distinctions between organizational, Mechanical Turk, and other convenience samples. *Industrial and Organizational Psychology, 8*, 142-164.

Lapchick, R. (2021). 2021 racial and gender report card. *The Institute for Diversity and Ethics in Sport.* https://www.tidesport.org/_files/ugd/403016_ede01db0e78446e7960974504587709f.pdf

Law, R., Dollard, M. G., Tuckey, M. R., & Dormann, C. (2011). Psychosocial safety climate as a lead indicator of workplace bullying and harassment, job resources, psychological health and employee engagement. *Accident Analysis & Prevention,* 43(5), 1782-1793.

Lesener, T., Gusy, B., & Wolter, C. (2019). The job demands-resources model: A meta-analytic review of longitudinal studies. *Work & Stress, 33*, 76-103.

Leiker, E. (2021, September 25). Anything but 11 a.m.: How game times for college football games are selected. *Columbia Missourian*. https://www.columbiamissourian.com/sports/mizzou_football/anything-but-11-a-m-how-game-times-for-college-football-games-are-selected/article_186c7446-1e19-11ec-bfd6-2b15a8cc1aad.html

LoRè, M. (2020, May 19). The importance of sports amid the coronavirus pandemic continues to be emphasized. *Forbes.* https://www.forbes.com/sites/michaellore/2020/05/19/the-importance-of-sports-amid-the-coronavirus-pandemic-continues-to-be-emphasized/?sh=618fe7b330f6

Malhotra, A. (2021). The postpandemic future of work. *Journal of Management. 47*(5), 1091-1102.

Mauno, S., Kinnunen, U., & Ruokolainen, M. (2006). Exploring work-and organization-based resources as moderators between work–family conflict, well-being, and job attitudes. *Work & Stress*, *20*(3), 210-233.

Mazerolle, S. M., Bruening, J. E., & Casa, D. J. (2008). Work-family conflict, part 1: Antecedents of work-family conflict in National Collegiate Athletic Association

Division I-A certified athletic trainers. *Journal of Athletic Training, 43*(5), 505-512.
Mérida-López, S., Bakker, A. B., & Extremera, N. (2019). How does emotional intelligence help teachers stay engaged? Cross-validation of a moderated mediation model. *Personality and Individual Differences, 151(1),* 1-6.
Miller, L. A., & Lovler, R. L. (2018). *Foundations of psychological testing: A practical approach*. Sage publications.
Morrow, S., & Howieson, B. (2018). Learning to be a professional football manager: A Bourdieusian perspective. *Managing Sport & Leisure, 32*(1-2), 92-105.
Oja, B. D., Bass, J. R., & Gordon, B. S. (2015). Conceptualizing employee identification with sport organizations: Sport employee identification (SEI). *Sport Management Review, 18*(4), 583-595.
Paule-Koba, A. L., (2022, July 20). Long strange trips: does conference realignment benefit college athletics? *Sportico: The Business of Sports*. https://www.sportico.com/leagues/college-sports/2022/does-conference-realignment-travel-benefit-college-athletes-1234682570/
Ramarajan, L., & Reid, E. (2013). Shattering the myth of separate worlds: Negotiating nonwork identities at work. *Academy of Management Review, 38*, 621-644.
Richardsen, A. M., Burke, R. J. & Martinussen, M. (2006). Work and health outcomes among police officers: The mediating role of police cynicism and engagement. *International Journal of Stress Management, 13*(4), 555-574.
Richardson, J., & McKenna, S. (2020). An exploration of career sustainability in and after professional sport. *Journal of Vocational Behavior*, *117*, 103314.
Rosseel, Y. (2012). lavaan: An R Package for structural equation modeling. *Journal of Statistical Software*, 48(2), 1-36.
Rubin, L. M. (2017). Who are athletic advisors? State of the profession. *NACADA Journal*, *37*(1), 37-50.
Rubin, L. M., & Huml, M. R. (2023). Athletic academic advisors' experiences supporting students through head coach transitions. *International Sport Coaching Journal*, *10*, 181-191.
Salmela-Aro, K., & Upadyaya, K. (2018). Role of demands-resources in work engagement and burnout in different career stages. *Journal of Vocational Behavior*, *108*, 190-200.
Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25*, 293-315.
Schaufeli, W. B., Bakker, A. B. & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement, 66*(4), 701-716.
Schaufeli, W. B., Bakker, A. B. & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior, 30*, 893-917.
Schaufeli, W. B. Salanova, M. Gonzalez-Roma, V. & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor

analytic approach. *Journal of Happiness Studies, 3*, 71-92.
Schenewark, J. D., & Dixon, M. A. (2012). A dual model of work-family conflict and enrichment in collegiate coaches. *Journal of Issues in Intercollegiate Athletics, 5*, 15-39.
Smith, A., Dwyer, B., Gellock, J., & Graham, J. (2021). NCAA coaches and academic professionals perceptions of importance, commitment, and effectiveness of organizational culture and student-athlete experience. *Journal of Issues in Intercollegiate Athletics*, *14*, 740-770.
Smittick, A.L., Miner, K.N., & Cunningham, G.B. (2019). The "I" in team: Coach incivility, coach gender, and team performance in women's basketball teams. *Sport Management Review, 22*(3), 419-433.
Spector, P. E. (1992). *Summated rating scale construction: An introduction* (Vol. 82). Sage.
Spector, P. E. (2021). *Industrial and organizational psychology: Research and practice*. John Wiley & Sons.
Statista. (2022a). North America sports market size from 2009 to 2023. *Statista.* https://www.statista.com/statistics/214960/revenue-of-the-north-american-sports-market/
Statista. (2022b). Sports industry revenue worldwide in 2021, with a forecast for 2022 and 2026. *Statista.* https://www.statista.com/statistics/370560/worldwide-sports-market-revenue/
Swanson, S., & Kent, A. (2015). Fandom in the workplace: Multi-target identification in professional team sports. *Journal of Sport Management, 29*(4), 261-477.
Swanson, S., & Kent, A. (2017). Passion and pride in professional sports: Investigating the role of workplace emotion. *Sport Management Review, 20*, 352-364.
Taylor, E. A., Huml, M., & Dixon, M. (2019). Workaholism in sport: A mediated model of work-family conflict and burnout. *Journal of Sport Management, 33*(4), 249-260. https://doi.org/ 10.1123/jsm.2018-0248
Taylor, E. A., Smith, A. B., Graham, J. A., & Hardin, R. (2021). Adaptive lifestyles in intercollegiate athletics. *Journal of Issues in Intercollegiate Athletics, 14*, 304-324.
Taylor, E. A., & Wells, J. E. (2017). Institutionalized barriers and supports of female athletic directors: A multilevel perspective. *Journal of Intercollegiate Sport, 10*, 157-183
Tonidandel, S., & LeBreton, J. M. (2015). RWA web: A free, comprehensive, web-based, and user-friendly tool for relative weight analyses. *Journal of Business and Psychology*, *30*(2), 207-216.
Turner, B.A., & Chelladurai, P. (2005). Organizational and occupational commitment, intention to leave, and perceived performance of intercollegiate coaches. *Journal of Sport Management, 19*, 193-211.
Van den Broeck, A., De Cuyper, N., De Witte, H., & Vansteenkiste, M. (2010). Not all job demands are equal: Differentiating job hindrances and job challenges in the Job-Demands-Resources model. *European Journal of Work and Organizational Psychology, 19*(6), 735-759.

Van Jaarsveld, D. D., Walker, D. D., & Skarlicki, D. P. (2010). The role of job demands and emotional exhaustion in the relationships between customer and employee incivility. *Journal of Management, 36*(6), 1486-1504.

Van Steenbergen, E. F., van der Ven, C., Peeters, M. C. W., & Taris, T. W. (2018). Transitioning towards new ways of working: Do job demands, job resources, burnout and engagement change? *Psychological Reports, 121*(4), 736-766.

Wakefield, K. (2014, January). Six differences between working in college versus prof sports (and why they may change). *BaylorS3.com*. https://sites.baylor.edu/baylors3/2014/01/01/working-in-collegiate-athletics-versus-pro-sports/#:~:text=The%20biggest%20difference%20between%20collegiate,in%20a%20more%20meaningful%20way.

Weaver, K. (2022, June 5). In NCAA Division I, new data shows burnout is rampant among administrators. *Forbes*. https://www.forbes.com/sites/karenweaver/2022/06/05/in-ncaa-division-i-new-data-shows-burnout-is-rampant-among-administrators/?sh=6b1e35d843f7

Weight, E. A., Taylor E., Huml, M. R., & Dixon, M. A. (2021). Working in the sport industry: A classification of human capital archetypes. *Journal of Sport Management, 35*, 364-378.

Wells, J. E., Walker, N. A., Sartore, M., & Gray, C. (2020). Stigma consciousness and work outcomes of Senior Woman Administrators: The role of workplace incivility. *Journal of Sport Management, 35(1), 69-80.*

Wells, J. E., Welty Peachey, J., & Walker, N. (2014). The relationship between transformational leadership, leader effectiveness, and turnover intentions: Do subordinate gender differences exist? *Journal of Intercollegiate Sport*, 7, 64-79.

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007a). The role of personal resources in the job-demands resource model. *International Journal of Stress Management, 14*(2), 121-141.

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007b). Reciprocal relationships between job resources, personal resources, and work engagement. J*ournal of Vocational Behavior, 74*(3), 235-244.