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Front Pages

Athens Journal of Sports

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The ***Athens Journal of Sports (AJSPO)*** is an Open Access quarterly double-blind peer reviewed journal and considers papers from all areas of sports and related sciences. Many of the papers published in this journal have been presented at the various conferences sponsored by the Sport, Exercise, & Kinesiology Unit of the **Athens Institute for Education and Research (ATINER)** & the Panhellenic Association of Sports Economists and Managers (PASEM). All papers are subject to ATINER's Publication Ethical Policy and Statement.

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The current issue is the first of the tenth volume of the *Athens Journal of Sports*, published by the Sport, Exercise, & Kinesiology Unit of the ATINER under the aegis of the Panhellenic Association of Sports Economists and Managers (PASEM).

Gregory T. Papanikos, President, ATINER.

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8-11 May 2023, Athens, Greece

The Sports Unit of ATINER organizes its **23rd Annual International Conference on Sports: Economic, Management, Marketing & Social Aspects, 8-11 May 2023, Athens, Greece** sponsored by the Athens Journal of Sports. The aim of the conference is to bring together academics and researchers of all areas of sports. Please submit a proposal using the form available (https://www.atiner.gr/2023/FORM-SPO.doc).

Academic Members Responsible for the Conference

Dr. Gregory T. Papanikos | Dr. Maria Konstantaki | Dr. Chris Sakellariou | Dr. Sharon Claire Bolton | Dr. Valia Kasimati | Dr. Cleopatra Veloutsou | Dr. Christos Anagnostopoulos

Important Dates

- Abstract Submission: **7 February 2023**
- Acceptance of Abstract: 4 Weeks after Submission
- Submission of Paper: **10 April 2023**

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Important Dates

- Abstract Submission: **25 April 2023**
- Acceptance of Abstract: 4 Weeks after Submission
- Submission of Paper: **26 June 2023**

Academic Member Responsible for the Conference

Dr. Maria Konstantaki, Academic Member, ATINER & Senior Lecturer, Buckinghamshire New University, UK.

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Dominant Types of Multiple Intelligences in Oman: Sport Practitioners vs Non-Practitioners

By Kashef Zayed[*], Samir Al-Adawi[±] & Qusai Al-Kalbani[°]

This study aimed to investigate the dominant types of multiple intelligences among regular sports practitioners, as well as to make a comparison in the types of intelligence between sports practitioners and non- practitioners. Exercise Behavior Scale and Multiple Intelligences Scale were electronically administered concurrently to 406 Omani sports practitioners and non-practitioners (298 males, 108 females; Age $_{Mean}$ 25.39 ± 6.67). Descriptive statistics and Multivariate Analysis of Variance (MANOVA) were used to analyze the data. The present-defined sports practitioners exhibited higher levels of bodily-kinesthetic, social, emotional, and naturalist intelligence while having low levels of musical and linguistic intelligence. In general, the differences between the levels of the eight types of intelligence in both groups were in favor of sports practitioners but did not reach the significance levels except for only two types of intelligence, namely physical-kinesthetic intelligence, and emotional intelligence. The present study laid the groundwork for the utilization of the multiple intelligences paradigm to explore the topology of the multiple intelligences among regular sports practitioners vs non-practitioners. This, in turn, could lay the foundation for identifying temperaments to foster sport and well-being.

Keywords: *multiple intelligences, sports activities, Oman*

Introduction

The traditional views on the concept of intelligence remained prevalent until 1983 as Gardner (2011), criticized the idea that there is only one type of intelligence measured by extant measures for intellectual quotient (IQ). In traditional IQ tests, the goal is to tap into your reasoning and problem-solving abilities. Gardner suggests the traditional IQ model tends to focus narrow part of human higher faculty and thus overlooks significantly other abilities that are essential for survival. Gardner postulated that humans tend to have variant abilities including social, emotional, musical, linguistic, and other abilities (Gardner 2011). In reference to Gardner's model of multiple intelligence, Armstrong (2009) argues that every intelligence is not a distinct entity. Instead, when individuals participate in an activity, they often develop more than one type of intelligence. A child kicking the ball to a teammate needs physical-kinesthetic intelligence to run, control, and kick, and spatial intelligence to expect the movement of the other teammate to anticipate the trajectory and direction of the ball towards the right

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place, and also needs linguistic intelligence and emotional intelligence to clarify his point of view and control his emotions (Armstrong 2009).

Multiple intelligences Theory (MIT) argues that although multiple intelligences have genetic roots, they can be enhanced and grown with influences from the surrounding environment and other life practices (Gardner 2011). Several studies have recommended the adoption of the principles of Gardner's theory of multiple intelligences as a theoretical basis for studying the multiple aspects of intelligence (Nwadike and Zhang 2021). Thus, many studies in different environments aimed to identify the multiple intelligences' profiles that characterize athletes and sports practitioners. Some of them explored that the most dominant types of intelligence that distinguish sportsmen, were bodily-kinesthetic intelligence, followed by interpersonal intelligence, while linguistic intelligence occupied the lowest ranks among the eight types of intelligence (Kutz et al. 2013).

Studies also demonstrated that competitors' athletes and sports practitioners for other purposes differ from their non-athletes or sports practitioners in many characteristics (Bara Filho et al. 2005, Malinauskas et al. 2014, Singh 2020, Kumar and Vishal 2013). Furthermore, studies revealed that regular sports practitioners not only develop bodily-kinesthetic intelligence but also develop multiple types of intelligence (Pérez et al. 2003), where they have increased levels of emotional intelligence and social intelligence compared to non-regular sports practitioners (Hong-shih and Wen-chang 2011).

To date, the data on this type of endeavor has largely emanated from developed countries. With the growth of sports industries, some establishment of characteristics of sports practitioners is therefore warranted. In developing countries, there were fewer attempts to investigate the dominant types of intelligence among athletes and sports practitioners with a few exceptions. Shafi'a et al. (2018) have investigated multiple intelligences of the athletes, that logical intelligence ranked first, followed by social intelligence in second place, and emotional intelligence in third place and concluded that there is a positive correlation between multiple intelligences and leader ship behavior. They concluded that intrapersonal intelligence, logical intelligence, and bodily intelligence are contributors to leadership behavior.

Another study concluded that volleyball players participating in the Jordanian Premier League have the highest emotional, social, and then bodily-kinesthetic intelligence, while their linguistic intelligence is ranked the lowest (Al Widyan 2016).

In Oman, Al-Rawahi and Zayed (2018) explored that the most types of intelligence that characterize physical education major students were social, emotional, and bodily-kinesthetic intelligence, while the least types were musical and logical intelligence. The study concluded that academic specialization could be specific predictor of the most dominant types of multiple intelligence

In this current study, we seek to identify the types of intelligence prevalent in the Oman population of those who pursue regular sports or otherwise. Oman is one of those countries in the Arabian Gulf with a pyramidal-like structure and this implies the preponderance of 'youth bulge'. Concurrently, the country has generally triumphed over communicable diseases but started to witness an

increasing number of non-communicable diseases amid a sedentary lifestyle. As is often the case, in such population structure and patterns of diseases, lifestyle changes such as increasing physical activities like exercises (Al Siyabi et al. 2021). Within such background, this study aims to identify types of intelligence dominant in people who have regular sports practitioners vs. non-practitioners. The present sentinel study has the potential to shed light on enhancing the understanding temperament of people who peruse regular exercise again those who do not. In the age of high non-communicable diseases, non-sedentary life has been shown to decrease healthcare utilization and increase the wellness of the population. Thus, this study has embarked to answer the following two questions: (i) what are the most dominant types of intelligence among Omani regular sports practitioners vs. those who do not; and conversely (ii) are there any differences in the types of intelligence between sports practitioners and non- practitioners?

Significance of the Study

This study will contribute to revealing the potential effects of engaging in sports and exercise during leisure time on multiple intelligences. It is expected that the results of this study will contribute to enhancing the understanding of sports and exercise practitioners' characteristics, especially since there is a lack of studies that dealt with this issue specifically in the eastern environment.

Methods

Setting

Invitations were extended through social media to approximately 850 Omani to participate in this study. After cleaning the data and excluding cases over the age of 32 and under the age of 18, the total number of participants reached 406, and all of them agreed to get part in this study in writing. The participants were classified according to their scores on the Exercise Behavior Scale, into two groups: Sports practitioners and non-practitioners.

Sample

Due to the limited access to a full list of the individuals in the larger study population, we used a non-random sampling, namely the convenience sampling method. A total of 406 (298 males; 108 females; Age $_{Mean}$ 25.39 ± 6.67) participated in the study by responding to the electronic questionnaire.

Measures

The study proforma has three parts. One is sociodemographic (age and gender) information of the participants. The second and third parts consisted of two outcome measures, *Exercise Behavior Scale* and *Multiple Intelligences*. These will be described below in tandem.

Exercise Behavior Scale

The scale was developed by Zayed et al. (2021). The content validity of the scale was proven previously by presenting it to eight academic referees specializing in the fields of physical education and sports sciences. The scale relies on collecting information from the participants regarding their daily exercise behavior during their leisure time. The scale covers three dimensions: (1) exercise intensity, (2) exercise frequency each week, and (3) period exercise duration. According to their responses, the participants were classified into two groups (practitioners and non-practitioners based on the criteria identified by the recommendations emanating from the initial and updated American Heart Association (Garber et al. 2011) and the U.S Department of Health and Human Services (Haskell et al. 2007). Accordingly, the participants were divided into two groups: regular sports practitioners vs. non-practitioners. Sports practitioners are defined as those who engage in one or more moderate-intensity sports activities (such as brisk walking, jogging, soccer, swimming, volleyball, and handball) at a minimum rate of two and a half hours per week, or engage in high-intensity sports (such as running, hiking, climbing and weightlifting) for up to an hour and a half per week minimum. Sports non-practitioners are defined as those who do engage in sports and exercise at all or who do it at rates that do not reach the recommended levels (less than two and a half hours of moderate-intensity activities or less than an hour and a half of high-intensity activities).

Multiple Intelligences Scale

The variation in multiple intelligences was derived from the theoretical model of multiple intelligence initially proposed by Gardner (2011). A short version of the Arabic Scale of Multiple Intelligences developed by Al-Rawahi and Zayed (2018) was used. The value for Cronbach's Alfa for the scale was α=0.87. The scale covers eight types of intelligence (linguistic, musical, bodily kinesthetic, spatial, social, emotional, logical-mathematical, and naturalist). The scale consists of 24 statements covering the eight different types of intelligence. Each statement could be answered either affirmatively or negatively by determining the extent to which the respondents agreed or not agreed according to the Likert method (Strongly Agree - Agree - Not Sure - Disagree – Strongly not Agree). Table 1 shows one example of each of the three statements that represent each type of the eight types of intelligence.

Table 1. *Subscales of Multiple Intelligences and Their Constituent*

Intelligence Type	e.g. Statement
Linguistic Intelligence	I can easily express what's on my mind, spoken or written
Musical Intelligence	If I listen to a song once or twice, I can memorize it
Bodily-Kinesthetic Intelligence	I can imitate the movements performed in front of me
Spatial Intelligence	I don't find it difficult to read maps and graphs
Social Intelligences	I can understand the personalities of the people I deal with
Emotional Intelligence	I can control my temperament and mode.
Logical-mathematical	I can do arithmetic operations mentally with ease
Naturalist Intelligence	I enjoy meditating on planets and stars

Statistical Analysis

Descriptive statistics were used to explore the dominant types of intelligence among the two groups, while multivariate analyses were utilized to determine the effect of exercise on multiple intelligence.

Results

To answer the first question of the study, which states, "What are the most dominant types of intelligence among Omani regular sports practitioners?" Descriptive statistics were used, as shown in Table 2.

Table 2. *Means and Standard Deviations of Common Types of Intelligence among Sports Practitioners (n=264)*

	Mean	Std. Deviation	Rank
Bodily-Kinesthetic intelligence	3.9684	0.75650	1
Social Intelligence	3.9268	0.72299	2
Emotional intelligence	3.9230	0.77588	3
Naturalist intelligence	3.5985	0.90834	4
Logical intelligence	3.5492	0.90724	5
Spatial intelligence	3.3902	0.75502	6
Linguistic intelligence	3.2904	0.68776	7
Musical intelligence	3.2109	0.80118	8

Table 3. *Means and Standard Deviations of Common Types of Intelligence among Sports Non-Practitioners (n=142)*

	Mean	Std. Deviation	Rank
Social Intelligence	3.7981	0.65469	1
Emotional intelligence	3.6854	0.72637	2
Naturalist intelligence	3.4390	0.89686	3
Bodily-Kinesthetic intelligence	3.4390	0.75988	4
Logical intelligence	3.4014	0.97287	5
Spatial intelligence	3.2723	0.73376	6
Linguistic intelligence	3.2089	0.72619	7
Musical intelligence	3.0634	0.83740	8

Table 2 shows that the dominant types of intelligence among the practitioners are bodily-kinesthetic intelligence, social intelligence, and emotional intelligence, while the lowest types are musical intelligence and linguistic intelligence.

Table 3 shows that the dominant types of intelligence among non-practitioners are social intelligence, emotional intelligence, and kinesthetic-bodily intelligence, while the lowest types are musical intelligence and linguistic intelligence.

To answer the second question of the study which stated, "Are there any differences in the types of intelligence between sports practitioners and non-practitioners? MANOVA was used to compare means differences between the two independent samples: Practitioners (n=264); and non-practitioners (n=142), as shown in Tables 4-6.

Table 4. *Means and Standard Deviations of Sports Practitioners (n=264) and Non Practitioners (n=142) of Indices of Multiple Intelligences*

		Mean	Std. Deviation	SE Mean
Linguistic	Practitioners	3.2904	0.68776	0.04233
	Non-practitioners	3.2089	0.72619	0.06094
Musical	Practitioners	3.2109	0.80118	0.04931
	Non-practitioners	3.0634	0.83740	0.07027
Bodily	Practitioners	3.9684	0.75650	0.04656
	Non-practitioners	3.4390	0.75988	0.06377
Spatial	Practitioners	3.3902	0.75502	0.04647
	Non-practitioners	3.2723	0.73376	0.06158
Social	Practitioners	3.9268	0.72299	0.04450
	Non-practitioners	3.7981	0.65469	0.05494
Emotional	Practitioners	3.9230	0.77588	0.04775
	Non-practitioners	3.6854	0.72637	0.06096
Logical	Practitioners	3.5492	0.90724	0.05584
	Non-practitioners	3.4014	0.97287	0.08164
Naturalist	Practitioners	3.5985	0.90834	0.05590
	Non-practitioners	3.4390	0.89686	0.07526

Table 5. *Multivariate Tests for the Effects of Exercise and Sports Activities on Multiple Intelligences*

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0.977	2080.697[b]	8.000	397.000	0.000	0.977
	Wilks' Lambda	0.023	2080.697[b]	8.000	397.000	0.000	0.977
	Hotelling's Trace	41.928	2080.697[b]	8.000	397.000	0.000	0.977
	Roy's Largest Root	41.928	2080.697[b]	8.000	397.000	0.000	0.977
Exercise	Pillai's Trace	0.115	6.442[b]	8.000	397.000	0.000	0.115
	Wilks' Lambda	0.885	6.442[b]	8.000	397.000	0.000	0.115
	Hotelling's Trace	0.130	6.442[b]	8.000	397.000	0.000	0.115
	Roy's Largest Root	0.130	6.442[b]	8.000	397.000	0.000	0.115

a. Design: Intercept + Exercise
b. Exact statistic

Table 5 shows that there were significant differences in participants' multiple intelligences based on their involvement in exercise F (8, 397)=6.442, p<0.005; Wilk's=0.885, Partial η^2=0.12. To determine how multiple intelligences, differ according to the independent variable (exercise's involvement), Table 5 presents the nature of the effects:

Table 6. *Tests of Between-Subjects Effects*

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Linguistic	0.613[a]	1	0.613	1.246	0.265	0.003
	Musical	2.008[b]	1	2.008	3.031	0.082	0.007
	Bodily	25.885[c]	1	25.885	45.089	0.000	0.100
	Spatial	1.282[d]	1	1.282	2.294	0.131	0.006
	Social	1.528[e]	1	1.528	3.119	0.078	0.008
	Emotional	5.210[f]	1	5.210	9.044	0.003	0.022
	Logical	2.018[g]	1	2.018	2.330	0.128	0.006
	Naturalist	2.350[h]	1	2.350	2.873	0.091	0.007
Intercept	Linguistic	3900.342	1	3900.342	7927.845	0.000	0.952
	Musical	3634.865	1	3634.865	5485.733	0.000	0.931
	Bodily	5066.383	1	5066.383	8825.149	0.000	0.956
	Spatial	4098.589	1	4098.589	7331.840	0.000	0.948
	Interpersonal	5509.990	1	5509.990	11247.826	0.000	0.965
	Intrapersonal	5345.100	1	5345.100	9279.163	0.000	0.958
	Logical	4460.846	1	4460.846	5150.208	0.000	0.927
	Naturalist	4572.957	1	4572.957	5591.454	0.000	0.933
Exercise	Linguistic	0.613	1	0.613	1.246	0.265	0.003
	Musical	2.008	1	2.008	3.031	0.082	0.007
	Bodily-kinesthetic	25.885	1	25.885	45.089	0.000	0.100
	Spatial	1.282	1	1.282	2.294	0.131	0.006
	Social	1.528	1	1.528	3.119	0.078	0.008
	Emotional	5.210	1	5.210	9.044	0.003	0.022
	Logical	2.018	1	2.018	2.330	0.128	0.006
	Naturalist	2.350	1	2.350	2.873	0.091	0.007
Error	Linguistic	198.760	404	0.492			
	Musical	267.692	404	0.663			
	Bodily	231.930	404	0.574			
	Spatial	225.841	404	0.559			
	Social	197.908	404	0.490			
	Emotional	232.717	404	0.576			
	Logical	349.924	404	0.866			
	Naturalist	330.410	404	0.818			
Total	Linguistic	4519.222	406				
	Musical	4322.000	406				
	Bodily	6068.889	406				
	Spatial	4780.556	406				
	Social	6317.111	406				
	Emotional	6224.333	406				
	Logical	5318.444	406				
	Naturalist	5428.333	406				
Corrected Total	Linguistic	199.373	405				
	Musical	269.700	405				
	Bodily	257.815	405				
	Spatial	227.123	405				
	Social	199.436	405				
	Emotional	237.927	405				
	Logical	351.942	405				
	Naturalist	332.760	405				

As shown in Table 6 there is a significant effect of exercise on two of the eight M, which are bodily-kinesthetic intelligence F (1, 404)=45.089, $p<0.005$; partial $\eta^2=0.10$ and emotional intelligence F (1, 404)=9.044, $p<0.005$; partial $\eta^2=0.022$.

Discussion

The main goal of this study was to explore the types of multiple intelligences profiles of sports practitioners. The results of the study revealed that the most dominant types of intelligence among sports practitioners are bodily-kinesthetic intelligence, followed by social intelligence, and emotional intelligence. It also found that the least types of intelligence they have are musical intelligence and linguistic intelligence. It also found that sports practitioners significantly differ from their non-practitioner counterparts in bodily-kinesthetic intelligence and emotional intelligence.

The results of this study which indicated that kinesthetic-bodily intelligence, social intelligence, and emotional intelligence are the most dominant types of multiple intelligences seem to be expected considering that the most important characteristic of sports practitioners is their motor skills and physical abilities that enable them to manipulate and control their movements in sports settings accurately and precisely. Additionally, it's also expected that the context of sport is rich in many situations that provide athletes and sports practitioners with opportunities to socially interact with others and at the same time practice control over their feelings and emotions, which may help them to enhance social and emotional intelligence and consequently improving their psychological and social competencies (Aouani et al. 2022). In addition, these results provide new evidence in another environmental and cultural context to support the previous literature about the most prevalent types of intelligence among athletes or sports practitioners, or undergraduate physical education undergraduate students (e.g., Yildiz et al. 2020, Şuruba-Rusen et al. 2021, Nwadike and Zhang 2021, Nikolaenko and Kolosova 2020, Hong-shih and Wen-chang 2011) which concluded that the common factor between the intelligence profile of athletes in team and individual games is kinetic intelligence and that the most important distinguishing features of athletes from non-athletes are kinetic intelligence, social intelligence, and emotional intelligence.

With regard to the result, that sports practitioners and non-practitioners have low levels of musical intelligence, it can be explained that the Islamic culture prevailing in Oman does not encourage modernized music due to religious considerations. This result confirms what some studies have indicated (e.g., Zaid 2018) which concluded that some types of music are considered unacceptable according to the Islamic jurisprudential perspective.

As for the result related to the relatively low level of language intelligence among sports practitioners, this may be because many sports practitioners are generally more interested in physical activities than in other activities such as reading and writing. This result is consistent with the findings of a study (Kutz et al. 2013), which concluded that linguistic intelligence among athletes ranked as the lowest type of intelligence. At the same time, this result partially differed from the findings reached by Emis and Imamoglu (2013) which concluded that exercise has positive effects on linguistic intelligence in addition to kinesthetic-bodily intelligence and social intelligence.

Conclusions

The study resulted in defining Omani sports practitioners' profile of multiple intelligences and concluded that sports practitioners may develop the kinds of intelligence that can help in achieving their sport-related goals such as kinesthetic intelligence, emotional intelligence, and social intelligence. The study also concluded that sports practitioners outperform their non-practitioners counterparts in all types of intelligence, which confirms that practicing sports contributes to achieving many positive effects on all types of multiple intelligences. Lastly, the study laid the groundwork for the utilization of the multiple intelligences paradigm to explore the topology of intelligence among regular sports practitioners vs. non-practitioners. This, in turn, could lay the groundwork for the identification of temperaments to promote sport and well-being.

Limitations

The results of the current study are difficult to generalize to the target population for two reasons: the first relates to the method of selecting the sample, and the second relates to the validity and reliability indications of the used tools. More studies on this endeavor are therefore warranted. Secondly, the present cross-section study is hampered by the confounder of difficulty to delineate temporal relationships. Thirdly, online the survey might accrue responses from those individuals who are computer savvy rather than the general population.

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Race and Gender Hiring and Expansion of Minority Donor Base in Division-I Athletic Fundraising

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This study examined the underrepresentation of minority fundraisers and diversity related concerns in the NCAA Division-I intercollegiate athletics. In addition, the study sought out the opinions of ten racial or gender minority fundraisers (25% of return rate) about departments' strategical initiative in expanding donor base and creating giving society through recruitment of diverse fundraising candidates. Each participant (fundraiser) participated in a 45-60 minute phone interview covering one's background and demographic information, challenges and diversity concerns in the workplace, potential strategies for improving diversity hiring and creation of certain specific giving societies. The results showed that D-I athletics still have room to improve minority hiring. However, factors such as race and gender did not affect these fundraisers' career advancement much. Participants also expressed that athletic departments need to be intentional with their commitment in diversity and inclusion initiatives. By committing to minority hiring, there could be potential for solving the issue of underrepresentation of marginalized groups in athletic fundraising and diversifying the donor base, thus increasing the overall size of gifts.

Keywords: *athletic fundraising, collegiate athletics, fundraising officer, philanthropy officer, and athletic donation*

Introduction

Despite the fact numerous institutions of the National Collegiate Athletics Association (NCAA) have continued to improve their effort in diversity and inclusion on the playing field in recent decades, they still lag behind when it comes to racial and gender equality in the administrative hiring of Division-I (D-I) athletics. In the nonprofit sector, females are dominant in numerous service-delivery positions, such as teaching, nursing, childcare, social work, and fundraising (Dale 2017). However, the underrepresentation of the female and minority hiring can still be seen in the leadership of higher education and collegiate athletics (Owen 2009, Shaker and Nathan 2017, Titus-Becker 2007). While the current number of women playing collegiate sports has risen by over 10% in the last decade, there are still very few women and people of color (POC) in leadership roles at the D-I, Football Bowl Subdivision (FBS) and the Football Championship Subdivision (FCS) level (Hancock and Hums 2016, The Women's Sports Foundation 2016). Women represented 47% of the total student-athletes, but only 10% in the role of the athletic director positions (Hruby 2021, NCAA 2021, Sage et al. 2019, Whisenant 2002). Overall, people of color represented 44% of all

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student-athletes, but only 15% of fundraisers or development managers (NCAA 2021). Of those 15% of non-White fundraisers, about 9% were African-American (*n = 161*) (NCAA 2021, Whitford 2020).

Each of the student-athletes who finishes his or her playing career may become a potential donor or major gift prospect of his or her alma mater one day. In addition, many student-athletes may also aspire to pursue a career as a fundraising or philanthropy officer of their athletic program or institution. According to Shaker and Nathan (2017), fundraising is relationship- and information- driven. With proper strategic effort, the higher education institution can breed fundraisers with a strong knowledge base and set of learnable skills that further professionalize the field (NCAA 2014, University of Notre Dame 2020, Shaker and Nathan 2017). Therefore, fundraisers in the education sector may have special opportunities to advance the professionalization of their occupation. The position of fundraising or philanthropy/project development manager in the athletic department can be an attractive position for former athletes because it offers a chance for them to continuously serve and help the next generation of student-athletes (Bowman 2010).

Studies have shown women usually dominated the fundraising field, occupying roughly 54-60% of philanthropy jobs across the country (Haar 2003, Nathan and Tempel, 2017, Zippia 2022), but a smaller ratio of female employees worked in the fundraising sector of the college athletics (Dale 2017, Daniel et al. 2019, Eisenstein 2019, Haar 2003). Less than 10% of the national fundraising professionals, in both for-profit sectors, non-profit sectors and private businesses, are people of color according to the Association of Fundraising member demographics (Burton 2020). In higher education setting, minority female fundraising officers and administrators were about 4-8% of the total fundraising employees (Nadel-Hawthorne et al. 2022). The Primary investigator, a biracial fundraising officer of a D-I athletic program, was intrigued to exam the challenge of increasing diversity of the fundraising officers in collegiate athletics. The investigators assumed the interview information of some current Division-I athletic fundraisers (particularly with those of underrepresented groups) concerning their job responsibilities and hiring experience could provide insights for improving the workplace diversity of the collegiate athletic industry.

In many practical cases, we witness individuals with similar racial background or personal interests would collectively gather and donate or contribute to political parties, schools, and non-profit agencies for achieving certain agendas or carrying out social responsibilities (Valbrun 2018). Research also showed when donors/ givers and fundraising officers (recipients) of charity share similar or common bonds such as racial or gender identity or past athletic experience, donors would value the supported causes and aforementioned related traits as more important, and give more (Craver 2019, Kaiser and Dolan 2013, Shapiro and Ridinger 2011, Vaid and Maxton 2017). Colleges and universities with increasingly diverse student bodies have become aware of that development and fundraising staff members remaining overwhelmingly white and male-dominant and start to value women and people of color as rising assets (Bowman 2010, Valbrun 2018). A 2019 study by the non-profit Cause Effective revealed that many "underrepresented" donors

felt more comfortable in giving large gifts, when their prospect manager was similar to them in both race and gender (Butterworth 2020, Tesar 2019). Caucasian fundraisers have also been told that they were passed over for promotions, because certain minority donors would not want to engage with someone not of their race (Butterworth 2020). According to a Women's Philanthropy Institute's (WPI) report, identity-specific giving accounted for 60% of all giving circles and was experiencing significant growth (Mesch et al. 2019). Although people of color had not been asked frequently, when they have the equal capacity and chance to donate like their white counterparts, they would prefer to work with fundraisers who reflected the same demographic identity (Mesch et al. 2019). In order to maximize the fundraising effort, it is logical to understand why the agencies or organizations would love to bring the minority candidates onboard to hold fundraising officer positions.

Purpose of the Study

The existing studies on female and minority fundraising officers in collegiate athletics were rare. By examining the racial and gender composition of the fundraising officers and occupational challenges faced by this position, this study attempted to discover insightful information for improving minority hiring of minority fundraising officers and the amount of donations in collegiate athletics. The investigators' assumption was that hiring of diverse fundraising officers would potentially improve the overall profits across the D-I intercollegiate athletics. Shouldn't athletic directors and university leaders do more to help increase the overall number of female and racial minority fundraising professionals, if they wish to generate more contributions? To identify the best strategies for improving the hiring landscape of fundraising professionals, the investigators solicited the responses from a few fundraising officers. The interview questions covered main topics such as: (1) best strategies for improving existing hiring practices; (2) concerns and challenges faced by minority candidates while applying for a position; (3) personal experienced racism and sexism throughout one's employment and their impact; and (4) one's opinion on race-specific or gender-specific giving.

Literature Review

A Brief History and the Financial Aspect of the Intercollegiate Athletics

Since its establishment in 1910, the National Collegiate Athletics Association (NCAA) has gone through numerous transformations that shaped the structure and operation of this governing body of the nation's intercollegiate athletics (Weathersby 2016). For example, the 1972 Title IX educational amendment opened the door for female athletic participation and dramatically increased the number of female athletes from 31,000 to 208,000 (Sage et al. 2019). The Special Convention in 1973 created the three-division membership system that allowed member institutions to offer men and women athletic scholarships and opportunities for tournament

competitions (NCAA 2013). The more funding that each institution can be provided and endowed by donors, the more that institution can offer to enhance student-athletes' athletic and educational experience. These changes have made the public more aware of the issues related to gender inequality in both sport participation and hiring as well as the importance of maintaining financial resources, stability, and accountability for an athletic program (Longman 2017, McDowell and Carter-Francique 2017).

The slow economic growth since 2010s and decrease of state appropriations to higher education institutions have created severe financial constraints and pressure on the intercollegiate athletics departments (Burgmaster 2020, Glasgow 2017, Hanson 2019, Humboldt State University 2018, Mitchell et al. 2017, Rackers 2016). The COVID-19 pandemic certainly made the problem worse for many small colleges and universities in Division-II or III. In order to operate a successful athletic program, the institution must be able to generate a huge amount of revenues and funds to offset an exorbitant budget. Supporting several hundreds of student-athletes' tuitions can be a huge financial burden for the athletic department. The average spending for each individual student's college education went from $8,250~$17,680 (public and private) in 1978 to $21,730~$48,510 in 2019 (Hess 2019). On top of the scholarship spending, the institutions also spend an incredible amount of money in facility renovations and constructions to attract the best athletic talent and entertain their potential athletic donors. At the most well-funded D-I level, among its 350s member institutions only 25 schools recorded a positive net-profit in 2019 (Drozdowski 2020), which meant more than 320 schools had to find ways to make up their budget shortfalls. The need of finding money to cover athletic programs' deficit significantly reflects the importance of fundraising, yet in the meantime, athletics is also the more influential sector in brining donations among higher education institution (Burgmaster 2020). In 2015, the top 400 athletic departments in the country raised a combined fund of over $1.2 billion. It was the fourth time in a five-year span that athletic departments collected over $1 billion in contribution (Wolverton and Kambhampati 2016).

The Culture and Environment of Athletic Fundraising/Giving

Athletic departments across the country have experienced the burden of raising huge funds to keep their programs operating, so they have relied on creative organizational strategies and activities to maximize private and charitable contributions (Hanson 2019). In general, about 25% of schools' athletic budgets came from fundraising efforts, which include major donors contributing for athletic scholarships and other initiatives, priority points programs tied to seating and parking for revenue generating sports, small annual fund contributions and million-dollar capital contributions (Wolverton and Kambhampati 2016). As costs rise, athletics directors realize that their programs need capable individuals to manage fundraising activities and cultivate these donors for maximizing their participation and contributions. Therefore, philanthropy professionals, such as fundraisers and project developers were valued as great assets and revenue drivers for schools across the country.

For decades, white males have dominated the landscape of D-I athletic giving.

In 1980, as the female demographic was growing in collegiate sport participation, 82% of the working age population were white (Tencer 2011). At that time, white males dominated the majority of leadership; thus, they hired professionals who looked and thought like them into the business, additional white males. Workplace diversity has changed over the last four decades. In 2011, the working population consisted of 37% minorities with 17% being Latino-Americans (Tencer 2011). A decade ago, minority college student-athletes would not value athletic fundraising as a lucrative career path for them to seek, because they had never been exposed to it (Bowman 2010).

Recently, more studies and articles have gradually emphasized the importance of the concept of diversity and inclusion in expanding the donor base and the involvement of stakeholders to maximize the philanthropic support for education (including athletic departments) and traditional charity (Hanson 2019, Indiana University Purdue University Indianapolis 2019, Steinbach 2012, Women of Color 2019). According to a report issued by the Lilly Family School of Philanthropy, regardless of gender and race, all donors with high net worth were equally willing to donate to the charity (Women of Color 2019). This finding clearly defied the myth that minorities were not willing or could not afford to support charitable causes (Craver 2019). In fact, women across races and ethnicities are leading through philanthropy (Indiana University Purdue University Indianapolis 2019). Many institutions began to recognize the role stakeholders may play in the fundraising process, so they utilized their athletic coaches and student-athletes to solicit the support from the donors. Often times, these involved individuals belonging to the racial minority groups (Hanson 2019).

As more people of color and women play college sports, those individuals would potentially enter the donor pool after they graduate. D-I athletic departments can take advantage of this by expanding their donor bases and improve the diversity level of the workplace. It was not news to hear that women and people of color were underrepresented in the management and leadership roles of intercollegiate athletics (Belzar 2020, Burton 2020). The 2020 College Racial and Gender Report Card still showed the D-I Football Bowl Subdivision (FBS) schools received an overall grade of D+, with a B- in racial hiring, and an F in gender hiring (Lapchick 2021). Among the FBS schools' leadership positions, 83.1% of the ADs were whites and 14% were classified as minority (Belzar 2020). Only 12 FBS ADs were women (Lapchick 2021). Minority candidates and professionals in collegiate athletics and fundraising and philanthropy often become the victims of the prevalent "good ol' boy network" and encounter racism and sexism (Burton 2020, Butterworth 2020, Fabri 2019, Longman 2017). Nevertheless, it was encouraging to see that some members of intercollegiate athletics are taking a stand and forcing change to happen. The West Coast Conference (WCC) had recently passed the new Russell Rule regarding diversity, equity and inclusive hiring (Nguyen 2020). WCC is the first D-I conference to create such a rule and it requires the member institutions to include a candidate of a traditionally underrepresented community in the final interview pool, whenever they hire any athletic director, senior administrator, head coach or a full-time assistant coach (Nguyen 2020). Gloria Nevarez, the first Latino-American D-I commissioner, stated the creation of this rule was to improve

the diversity that reflected of their student athletes (Nguyen 2020). The field of athletic giving may soon improve its diversity among the fundraisers and project developers after the administrators understand the benefits of inclusion by educating and promoting more minority students to pursue a career in athletics.

Encouraging female (especially the minority) candidates to pursue leadership roles in athletics is not an easy task. Often time, there were not enough influential role models available to inspire young women pursuing leadership positions in athletics (Whisenant et al. 2002). Fabri (2019) indicated that the advertisement of athletic director positions often implies masculinity for the role, responsibilities, and title, thus women are somewhat discouraged from applying for such positions. The lack of understanding finances of lucrative men's sports, such as, football and basketball, is the main excuse for keeping females from getting the job of athletic directors (Hartzell and Dixon 2019). Yet, some women who have made the athletic director seat indicated that gaining relevant experience in marketing and fundraising could be useful experience and a better route to top leadership (Grappendorf and Lough 2006). As the need for fundraisers continues to expand and the workplace demographic keeps shift toward diversification, we may witness a potential increase of female and minority fundraising officers hired in higher education institutions and athletic departments.

Method

Participants and Procedure

To investigate the challenges faced by fundraising professionals in athletics during their hiring and work, ten current fundraising officials were selected and invited to provide insights concerning the diversity issues in workplace and the expansion of the minority donor base. These D-I intercollegiate fundraisers (n = 10) were classified as underrepresented members based on either their racial identity or gender (or both). These individuals' positions ranged from directors, hiring, managers, to entry-level officers. They were employed at either the FBS or the FCS institutions. The length of their career experience ranged from over 20 years to 1.5 years in intercollegiate athletics. Please see Table 1 for the detailed information of participants' demographics. The information showed each corresponding fundraiser's (F1 to F10) demographic identifier.

Table 1. *Demographics of Participants*

Respondent	Gender and Race	Work Experience (Years)
F1	Female White	6
F2	Female White	21
F3	Female Latino-American	7
F4	Male Black	12
F5	Female White	3
F6	Female White	3
F7	Male Black	24
F8	Female White	2

F9	Male Black	11
F10	Female White	8

The investigators utilized the directory of D-I athletic departments and looked up the webpage page of fundraising officers for more than 100 schools. The primary investigator identified many of them through his own network and professional organization. Then we selected 40 D-I fundraising professionals who were classified as racial minorities (people of color) to the contact list. The investigators randomly contracted individuals this 40-person list. The study sample was made up of the first ten (seven women and three men) individuals who voluntarily agreed to be interviewed.

The investigators adopted a structured-interview approach to interview all participants with a series of research questions under the same protocol (Andrew et al. 2020). Participants were interviewed through a phone call between the dates of December 1, 2020 - January 8, 2021; and each interview lasted approximately 45 minutes to one hour. All phone interviews were conducted by the primary investigator. Participants answered four open-ended questions pertaining to their work experiences in intercollegiate sports and they commented on improving diversity, equity, and inclusion issues. The investigators obtained the verbal consent from the participants and promised to keep their name strictly confidential. Participants were instructed of their rights and understood that their given information such as demographics, work experience and comments would be used for data analysis only.

Instrumentation and Data Analysis

Each participant responded to six open-ended questions concerning their work experience as a fundraiser at the D-I level and their opinions on diversity issues. These questions were self-created based on the research concepts of past studies related to minority hiring in athletics and fundraising challenges in collegiate athletics (Burton 2020, Butterworth 2020, Hartzell and Dixon 2019, Indiana University Purdue University Indianapolis 2019, Tencer 2011, Whisenant et al. 2002) (see Table 2).

Table 2. *Open-ended Research Questions*

Question 1: What can the leaders of D-I athletic departments do to improve the diversity, equality, and inclusion (DEI) hiring practices for fundraising officers? What recommendations would you give for helping people of color rise to levels of leadership and management?
Question 2: What are some hurdles/challenges that minority employees may face while applying or once entering the field of athletic fundraising? How do an individual's characteristics affect your career pathway or one's interrelationship with donors, fans, coaches?
Question 3: Please discuss the examples or experience related to racism or sexism that department's minority fundraising officers have encountered (or heard)? Do these individuals feel any of these biases hinder their career advancement or contribute to the underrepresentation of minorities?
Question 4: Please address your thoughts on building the department's employee demographics to match the gender and race of major gift donors in order to increase overall giving. Should the departments develops giving societies that target or attract underrepresented minority individuals?

The primary investigators recorded the interview conversations and composed the full transcriptions of recorded interviews. The investigators adopted the Grounded theory to further deconstruct the information by identifying and creating themes to summarize the lengthy information (Andrew et al. 2020). Then investigators checked the accuracy of the summarized information/themes by listening to the recorded conversations and compared each other's notes. The investigators also discussed and agreed on the use of selected "themes or key words" for depicting the issues. Each participant's responses and examples of one's experience were further coded into either negative/unfavorable or positive/ favorable aspect for generating frequency counts. The investigators' ultimate goal was to draw conclusions and strategies for solving the issues related to the underrepresentation of the minorities and diversification of the donor base in collegiate athletics.

Results

After each participant identified his/her demographic characteristics, the individual answered four questions and provided insight into their unique professional journey. Over the course of interviews, several common themes emerged regarding their experiences with workplace challenges and recommendations for improving diversity hiring and expanding the donor base. The investigators reexamined the analysis of themes and compared the results with the full transcriptions to ensure they were in agreement. Readers can find the identified themes in the summary tables (see Appendix A to D). Following sections depicted the summary of themes concerning each area of the research questions.

Hurdles/Challenges While Working in Intercollegiate Athletics

Apparently, seven of the ten participants offered some form of negative concerns. These identified issues were challenges or problems that affected their morale or performance in daily work. The most identified theme was that "there was no one else who looked or thought like me" (according to five participants). The notion of "the athletic department is a 'good ole boy' network of old white people" was prevalent. Female participants particularly addressed the unfair treatment that they had personally experienced. They included unfair or double standards for work evaluations, lack of pay equity, and intentional humiliation. Female participants described them being held to higher standards when entering meetings with male fundraisers or donors. Their opinions were often neglected. Male workers would make the environment uncomfortable for them to talk, thus they felt lack of confidence. Only one white female worker (F10) felt that there was no issue in her workplace. She believed she could earn other colleagues' respect by working hard. A minority fundraiser (F7) explained that POC needed to be careful about their words and actions while confronting incidents related to racism, because others oftentimes would classify them as "angry Black men."

Faced Biases and Impact of Race and Gender on Career Advancement

According to eight participants' responses, racism and sexism were still easily observed in their athletic department. Some expressed racism seemed to be a more serious and prevalent issue, yet females tended to cover up those incidents or avoided talking about sexual harassment. At the personal level, no participant expressed his/her career was affected by the racial or gender identity. However, they all stated some coworkers or donors really acted outside of the lines of professional conduct. One participant (F1) complained for a long time, that she was forced to look like male counterparts. She had shorter haircut and wore suits to work. She often felt she was not well trusted in the workplace. F9 felt many of her female staff dealt with sexism often but might not always vocalize those issues. F10 also had witnessed those types of incidents but chose not to elaborate on the topic. F6 was disappointed that people cracked racial jokes on a frequent basis (by both donors and employees). She felt people were still not being conscientious about racial awareness. F3 expressed that inappropriate racial comments mainly came from donors but not co-workers.

Two participants (F1 and F2) elaborated that being a female could bring some advantages to their fundraising work. They would be more strategic and include the donor's wife in meetings. Oftentimes, fundraisers just looked to the male donors, and forgot in a couple's lifespan, the wife would most likely have financial control in most cases. When females were brought to the meeting, gifts/giving in some instances were higher because both partners were now "buying in."

Although the participants' career advancement was not impacted by their demographic identity, this did not mean that they thought race or gender did not play a no role in one's promotion. F9 expressed favoritism seemed to be given to white male candidates in promotions. F4 believed being a POC certainly limited

one's chance to reach the top-level leadership role in athletics (i.e., Athletic Director). F7 emphasized the importance of making sure POC have the same job access that others have for future generations. Schools must make an intentional effort to connect student-athletes of marginalized groups with individuals in leadership roles and make sure student athletes know what athletic jobs and careers entail.

Expansion of the Donor Base and Matching of the Demographic Profiles

The investigators were intrigued by how matching the donors' and fundraisers' demographic profiles could improve the efficiency of the fundraising tasks and expand the size of the donor base. In general, more participants recognized the benefit of connecting donors with fundraisers who shared the same racial or gender identity as them. This type of connection might make individuals relate to each other easier. After all, fundraising success is heavily reliant on relationship building. Two participants (F1 and F9) stated they had previously intentionally switched their employees to match the donors' demographic profile. There were two other cases fundraisers had to take the donors off the list because they made inappropriate comments toward the female or minority fundraising staff. The majority of the participants (n = 6) did not see the urgent need to align the fundraisers and donors' demographic background. However, they were mindful about this concern and believed their colleagues and themselves were well trained to face any situation.

Participants had mixed feelings about the creation of specific giving societies that target or attract underrepresented minority individuals. Some of them were open to the idea and believed this approach could reach out to different groups of people and increase the sources of revenue. F8 reflected as a young former female athlete in the fundraising industry, she was able to successfully convince parents of student-athletes or individuals who look to support female initiatives to donate more. However, more participants thought there was no need to develop such societies (or donor portfolios) due to the following reasons: (1) creating too many sub-groups may confuse the donors' understanding about the general mission, (2) it was not financially worthy to create additional funding initiatives, (3) the practice may offend some older white donors, and (4) it may sound narrow-minded to just target special minority groups.

Recommendation for Improving Minority Hiring

In terms of improving the diversity, equality and inclusion of the athletic department, numerous recommendations were offered by the participants. All participants were supportive of this initiative. It is not about merely hiring women and POC within fundraising, the leaders must sincerely intend to promote these minorities to the leadership roles and upper management level (shared by F2, F5 and F6). In addition to hiring elite candidates based on both experience and trainability, ADs need to be willing to stick their neck out for individuals who come from underrepresented groups. ADs must create a culture that intentionally and actively pursue diverse candidates (i.e., women, POC and LGBTQ), and work

hard to hire and retain them (F2 and F6). Minority hiring starts with where and how people look to hire their employees. Institutions have not put enough coordinated effort to recruit POC and have not educated people (student-athletes and high school prospects) on the career opportunities as well (by F2, F4 and F7). The key to solving this problem is providing access and opportunity (F2, F4 and F7). Institutions and athletic departments must share opportunities where minorities often seek jobs by extending beyond the traditional athletic job boards and databases. Leaders must assign and support mentors to minority groups once those individuals get hired into the entry level (F8 and F9). A couple of participants firmly believed that the diversity initiatives like the Russell Rule were necessary. This type of rule should be required until the workplace can naturally hire individuals with all backgrounds and races equally.

Discussion

After reviewing the responses of all participants, who were at different points in their careers, the investigators got the sense that athletic departments really needed to be intentional with their commitment to diversity and inclusion. It is going to be a challenging thing to implement, but if departments do not commit to it, they will never improve the organization's effectiveness and performance to its maximum level. Departments need to look outside the norms of athletics to recruit talented hardworking people who are trainable. Schools also need to make sure that POC, women, and other diverse groups have the proper access and opportunity to get to the entry-level jobs and get promoted to the leadership roles (i.e., AD position). This means the current leaders in power would need to take risks including hiring individuals who might not have the same experience or background as the usual white candidates.

In order, to hire diverse talent, it is ultimately about educating all levels and types of people about the access and opportunity. Educators can help collegiate student-athletes and high school students to start thinking of athletic fundraising as a career option. Working in athletics is not just about coaching football or basketball. There are jobs relating to marketing, fundraising and dozens of other professions in intercollegiate athletics. Fundraisers need to work with the sports teams and show players about the critical role that they play in funding the programs. Then student-athletes can be aware that they are being directly supported by the hundreds of donors and be willing to seek a career in this field.

It was a relief to know that only a few participants felt their race or gender identity had somewhat impacted their career advancement. However, almost everyone agreed that racism and sexism issues were very prevalent among the older generations of white male donors. Uncomfortable situations often occurred and were tough to avoid. Thus, it became critical for the departmental leaders to vocalize these issues and address unacceptable behaviors. When the situation arises, we witness more and more schools are willing to cut ties with donors who exhibit discriminatory behaviors. Hopefully, the rise of the diversity awareness in our society will help the institutions obtain more diverse philanthropic individuals

and change the composition of the donor base.

Many fundraising professionals felt portfolio of their major gift donors should be customized. Fundraisers should strategically connect with their donors along personalities and commonalities in lifestyle more so than simply just matching the gender or race. Participants expressed that flexibility should be allowed to match and accommodate the need of major gift donors. It is perfectly acceptable to assign an entry-level fundraiser to work with a large prospective donor, if the individual can relate well with the donor. It is interesting to think about integrating not only through a capacity strategy, but a personality strategy as well.

Most interviewed fundraisers agreed to the rationale of building specific fundraising societies to target minority donors; however, some believed there is a fine line to walk this path. If the school did not have a history of this type of initiative, then creating those societies out of the blue might turn off some donors. On the other hand, if more donors can be passionate about these initiatives, then the schools may be able to efficiently receive more gifts. Overall, participants did not project the formation of different fundraising societies or targeting minority donors would significantly increase the revenues or number of gifts. Nevertheless, they seemed open to the idea of reaching out to different groups to diversify the donor base.

Conclusions

This study showed there is clearly room for intercollegiate athletics to improve their diversity hiring practices and workplace environment. There were still too many instances of unfair practices in promotions and negative workplace interactions. Athletic fundraisers' job is to make the largest transformational impact on the athletics department. Departments all over the country certainly cannot afford to leave money on the table by not improving hiring practices to help recruit donors of various diverse groups. Departments need to be intentional with their hiring strategies and make sure that candidates with diverse demographics and backgrounds are considered, hired, and retained. Schools and conferences may need to rely on implementation of diversity hiring initiatives, such as the Russell Rule, to keep them transparent and honest. Some individuals worried this type of practice was merely adding a box to check off during the interview process. This rule at least imposes the athletic departments to give minority candidates a chance for the fair interview. Clearly, there are ways to improve the college diversity landscape, but it is up to administrators now in power to make sure it happens.

Finally, the small size of the study sample and the specific intent in selecting minority participants were two major limitations that hindered the validity for generalizing the research findings. The investigators would like to encourage future investigators to expand the sample size and target on different subdivisions (i.e., athletic training, compliance, media relations, and marketing) in collegiate athletic departments regarding the issue of hiring practices and diversity concerns.

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Appendix A: Summary Table of Question 1's Responses

Question 1: What can the leaders of D-I athletic departments do to improve the diversity, equality, and inclusion (DEI) hiring practices for fundraising officers? What recommendations would you give for helping people of color rise to levels of leadership and management?

No.	Gender and Race	Response
F1	Female White	Hired based on experience and trainability
F2	Female White	Create a culture, leadership has to be intentional and actively pursue diverse candidates, ask right questions
F3	Female Latino-American	These new Chief Diversity positions should consider being an outside hire…don't just add diversity to a current employee's role. Be intentional
F4	Male Black	There has not been a good enough coordinated effort to get POC into fundraising as a whole, haven't educated people [student-athletes, high schools] on the opportunities in the world of athletics to mirror student athlete makeup [to get the demographics closer]…talent pool is there
F5	Female White	Leadership needs to be willing to stick their neck out for individuals who come from underrepresented groups…give people chance…bravery to ask
F6	Female White	"Growth takes progressive leaders…we need to continue to retain our diverse candidates… have to build culture, Black, Latino-American, LGBTQ individuals have to all feel comfortable…leadership committees need to be diverse in their hires and create that positive culture More than check a box
F7	Male Black	Access and opportunity, in my opinion POC feel like they only have one shot, so they often times they take the automatic career path
F8	Female White	The key is to provide mentors to marginalized groups once those individuals get into the entry level… women need to push women to grow up, push through the inequality
F9	Male Black	It starts with where you look to hire people… share opportunities where minorities often seek jobs, not just the traditional athletic job boards and databases, vary your platforms Russell rules must be there until the process is natural
F10	Female White	No comment

Appendix B: Summary Table of Question 2's Responses

Question 2: What are some hurdles/challenges that minority employees may face while applying or once entering the field of athletic fundraising? How do an individual's characteristics affect your career pathway or one's interrelationship with donors, fans, coaches?

No.	Gender & Race	Response	Negative Experience
F1	Female White	Female held higher standard, SWA extra steps	Y
F2	Female White	Female held higher standard, No one like me good, old boy network	Y
F3	Female Latino-American	Good old boy network, No one like me, only males attend golf outing	Y
F4	Male Black	No one like me, begin to call them out (embrace diversity early)	Y
F5	Female White	Lack of confidence, they don't apply, network	
F6	Female White	No one like me, family or work (gradual change)	Y
F7	Male Black	Unfair evaluation, angry Black man (slight improve)	Y
F8	Female White	Lack of pay equity	Y
F9	Male Black	No one like me, good old network	Y
F10	Female White	No issue (hard work earn respect)	

Appendix C: Summary Table of Question 3's Responses

Question 3: Question 3: Please discuss the examples or experience related to racism or sexism that department's minority fundraising officers have encountered (or heard)? Do these individuals feel any of these biases hinder their career advancement or contribute to the underrepresentation of minorities?

No.	Gender and Race	Response	Negative Experience
F1	Female White	Being a female help (has some advantages)	
F2	Female White	Yes sexism: for a long time I was forced to look like male counterpart, wearing suits, shorter haircuts. No well trusted Be more strategic, include wife….	Yes
F3	Female Latino-American	More racism: mainly from donors not from employees	Somewhat
F4	Male Black	racism is still very frequent, witnessing it every week working with majority older white males Not possible to know for sure. Top level AD job (hard for people of color)	Somewhat
F5	Female White	Have good mentor, not much of problem	No
F6	Female White	F6- "racism is happening on a pretty frequent basis by both donors and employees, people are still not being super intentional with racial awareness, No issue….progress is slow but steady	Yes
F7	Male Black	Definitely, connect student athletes in marginalized groups with individuals in leadership role and make sure student athletes know what those jobs entail	Yes
F8	Female White	Pay gay do exist	?
F9	Male Black	it still is an issue, I feel like many of my female staff deal with this more but may not always vocalize. Not personally, but the favoritism existed	Yes
F10	Female White	I do see them, but don't wish to elaborate. Not personal, value diversity	Yes

Appendix D: Summary Table of Question 4's Responses

Question 4: Please address your thoughts on building the department's employee demographics to match the gender and race of major gift donors in order to increase overall giving. Should the departments develop giving societies that target or attract underrepresented minority individuals?

No.	Gender and Race	Response	Support the Idea
F1	Female White	Yes, but case is rare. No need to change schools don't need to generalize donors like that and build their portfolio in that way Don't confused the donors, adding too many. Small giving is OK	Somewhat
F2	Female White	Diversity is the key. Do not believe that portfolio should be defined along race or gender lines" Why not?	No
F3	Female Latino-American	Do see the connection, be more intentional, still no need to change Beneficial to have option	Somewhat
F4	Male Black	If I can't morally align with that donor, it will always be something that will end with one. May cross the line, can't steer people to one.	No
F5	Female White	"I have had to adjust portfolios for women on my team and we will instantly remove them… I always have to be very mindful about things that I shouldn't have to think about [my appearance and makeup and shoes] but I do it because that is what the culture is, Open to the idea,…. People may have interest	Yes
F6	Female White	There are two donors that they are debating removing, and on with a checkered past and one that has made some inappropriate comments…does feel like fundraising is easier when individuals are very similar. Don't think change is profitable. May upset the white people, but marginalized groups need help	No
F7	Male Black	Awareness of issues is key, make sure fundraisers know where people are coming from, do their pre-meeting research...let donors know that they will be heard It's happening, not necessarily created groups but emphasize great deeds	No
F8	Female White	Our school is intentional at building portfolios around people who we might work the best with, think it would be closed minded and short sighted useful for achieving gender equity	No
F9	Male Black	"We have had to switch members of our team's portfolio when some males are too forward with our female fundraisers. I don't think you need to build a portfolio Could be helpful, naturally occur/history	No
F10	Female White	See the benefit. I think that departments should build portfolios that the fundraiser identifies with race and gender wise An idea that shows relatability	Yes

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Does High-Performance Sport have an Obligation to Help Former Athletes with their Career and Life Transition?

By Daryl Waud[*] & W. James Weese[±]

The popular press is filled with articles chronicling the challenges that many elite athletes encounter while adapting to life after completing their playing days. Do their organizations and leagues owe them a duty of care and help to ensure they can transfer effectively to a different life and career once their competing days are finished? This paper reviews the literature surrounding this transition. The authors examine the recent literature surrounding high-performance athletes' challenges during and after their sporting careers end. In addition to documenting the potentially adverse experiences, and in the spirit of providing contextual balance, the authors highlight some of the positive outcomes related to high-performance sport involvement and the leadership qualities that can be honed and tempered through the experience. The authors conclude the paper with a series of recommendations to assist future players, team and league officials, and players unions to help reduce the problem.

Keywords: *high-performance sport, career and life transitions*

Introduction

Transitions are universal experiences that have been analyzed in various contexts (Hart and Swenty 2016). Regardless of the gender or industry, transition to retirement must be effectively managed, or it can result in detrimental effects on a person's mental health and well-being (Leonard and Schimmel 2016, Wheaton 1990). This is especially true in elite sport given its high profile, media attention and public notoriety, coupled with the fact that the transition occurs at a much earlier stage of life for elite athletes (Pearson and Petipas 1990, Wylleman et al. 2004). Some male and female elite athletes adapt seamlessly, but the majority (Werthner and Orlick 1986, Wylleman et al. 2004) find it a challenging and emotionally-distressing experience (Dewenter and Giessing 2015, Douglas and Carless 2009, Gilmore 2008, Moesch et al. 2012, Stambulova et al. 2009).

Retirement from elite sport has been conceptualized as a role transition whereby athletes disengage from some activities and relationships to seek others (Coakley 1983). Typically, transitions entail complex processes that ultimately result in significant life changes and redefinition of oneself (Hart and Swenty 2016). Transitions from elite sport are commonly regarded as stressors resulting in undue pressure on an individual to adjust (Wheaton 1990). The training and competition schedules leave little time for anything else. According to Douglas and Carless (2009) and Werthner and Orlick (1986), a high proportion of female and male athletes struggle with this transition stage. Is this fair to the athletes,

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especially given the years that they have ahead of them? Do their host teams and organizations that have profited from the athletes' services have any responsibility for helping prepare these athletes for work and life following their playing days? Many women and men need assistance with this transition.

Three overriding questions guide this manuscript:

1. Do professional sport organizations and the players' unions have a responsibility to help prepare athletes for their life after athletics?
2. Can retiring athletes successfully transition on their own, or should their former employers/organizations provide resources to help during the process?
3. What programs and services might alleviate the problems?

Leadership Development through Sport

Researchers have established that sport participation can provide invaluable lessons such as understanding teamwork, developing discipline, overcoming adversity, and building resiliency (Gould 2016). Effective team leaders can impact social cohesion and facilitate team success (Carron and Eys 2012). Male and female athletes develop leadership characteristics through sport, especially when the experiences are accompanied by extensive coaching/mentoring (Day et al. 2004, Solansky 2010). Developing these skills may help facilitate athletes transitioning from elite or professional sport into a new career (Sauer et al. 2013).

Beard and Weese (2020) studied leadership development in men and women resulting from collegiate sport participation. Beard and Weese (2020) interviewed former collegiate athletes 50 years after they last competed and following their formal retirement from their professional careers outside sport. They reported that the sport environment allowed them to experience leadership and develop skill sets that served them well in their lives and careers. Many participants discussed how the challenges they faced in sport (e.g., making the team, getting playing time, facing a stronger opponent) gave them first-hand experience in addressing some of the challenges they met later in their personal and professional lives. Upon reflection, participants mentioned that team sports and organizational life are very similar (i.e., a group of people pursuing a common goal). They felt that they developed positive, lifelong social relationships with their teammates and created a special bond with these individuals. The male and female respondents both recalled that interacting with their teammates away from the locker room helped develop their interpersonal communication skills. These were invaluable opportunities for the athletes to build meaningful relationships. They discussed the importance of pursuing excellence as individuals and, more specifically, as team members. They felt that being part of a sports team: (a) forced them to challenge their assumptions about their abilities; (b) led them to believe in themselves and their abilities, and; (c) helped them raise their expectations for performance and achievement (Beard and Weese 2020).

Resiliency is another transferable skill that can be learned through a sport experience. Athletes continually manage injuries, trades and relocations, constant

fear of being replaced, and performance slumps (Fletcher and Sarkar 2012, Galli and Vealey 2008). Sarkar and Fletcher (2014) conducted a study on the psychological resilience in elite sport performers. They found that Olympic gold medalists experienced many stressors, ranging from daily demands, such as balancing work and training, to significant life events (e.g., death of a family member). Researchers like Fletcher et al. (2006) have suggested that competitive stressors are environmental demands associated primarily and directly with competitive performance.

In elite sport, peak performance requires high levels of preparation, injury avoidance, rest, ability to perform under pressure, and self-confidence (Sarkar and Fletcher 2014). If embraced and overcome, challenges like these can often enrich an athlete's development (Collins et al. 2016, Sarkar et al. 2015). These skills are also valuable in organizational life. An agile organizational leader must embrace adversity and adjust accordingly to achieve great results (Trepanier and Nordgren 2017). Additionally, agile organizational leaders must cope with ambiguity and change, implement decisions quickly, and lead confidently (Trepanier and Nordgren 2017). Sport performers and organizational leaders must rely on previous training and experiences to make the decision-making process instinctual. Years of training, sacrifice, and dedication have helped develop intangible skills in elite athletes that could be transferable to other post-sport career endeavours. High-performance athletes may have the profile and skill sets that make them highly marketable in the eyes of potential employers. With life and career coaching, athletes could seamlessly transfer these desirable skills to post-career roles in society.

Transitioning from Elite Sport to Civilian Life and Work

Elite athletes have a high social profile and distinct identity due to their sport accomplishments and media coverage (Yao et al. 2020). An athlete's identity as an elite performer can become synonymous with the individual's identity after years of sport participation. Researchers have agreed that identities are not fixed, but instead, they have multiple aspects that are continuously altered or renegotiated (Hickey and Roderick 2017). Lally (2007) defined identity as a multidimensional view of oneself that is both lasting and dynamic. Over time, people may claim an identity with which they strongly associate, that can be influenced by social and environmental factors (Hickey and Roderick 2017, Lally 2007).

Additionally, an individual's identity can comprise several features, although one aspect can become dominant or preferred. Brewer et al. (1993) defined athletic identity as the degree to which an individual thinks and feels like an athlete. Additionally, athletic identity has been referred to as the degree to which an individual defines himself about the athlete role (Grove et al. 1997). Athletic identity has been positively associated with athletic performance and is consequently a desirable quality for athletes to possess (Werthner and Orlick 1986). Nevertheless, athletic identity is a significant factor that can impact an athletes' personal and psychological development (Martin et al. 2014).

Hockey Hall of Fame member Ken Dryden was a goaltender for the Montreal

Canadiens of the National Hockey League (NHL) from 1970 through 1979, winning six Stanley Cups. On five occasions, Dryden was named the league's top goaltender throughout his stellar hockey career. As impressive as his performances were on the ice, the most remarkable aspect of Dryden's account was his preparation for life after sport. He pursued challenges outside of hockey to prepare for his inevitable transition from professional sport. While playing, Dryden attended law school at McGill University. He retired from hockey in the prime of his career to pursue a law career. Dryden is an example of a professional athlete who effectively transitioned to a new career. He became an accomplished lawyer, a proficient politician, a renowned author and was named a member of the Order of Canada. He published a book entitled *The Game*, which recounted his decision to retire from hockey in his prime, and he detailed the thought processes that guided his decision (Dryden 2013). In this book, Dryden expanded on some of the challenges he and some of his teammates faced while transitioning from elite sport. Dryden concluded that retiring could be the same experience for people regardless of age, a statement supported in the sport transition literature (Leonard and Schimmel 2016).

A Departure from the Structure

During the retirement process, an elite athlete leaves something that they have successfully participated in for most of their life. Whether it is the rink or the field, the locker room or the lounge, in the gym or in treatment, athletes have become familiar with the environments and processes of their daily routine. Their schedule generally includes daily workouts, practices, and treatments. They become accustomed to the lifestyle of preparing their body for the next game or event. Athletes are fortunate to have these experiences and live that way of life for a brief period; however, it can be especially challenging for athletes to leave this lifestyle behind upon retirement.

Dryden (2013) discussed how sport could provide an elite athlete satisfaction and a place to fit in. Sport often provides athletes with a sense of use and purpose. When athletes are forced to leave the sport at a relatively young age, they still desire satisfaction with their life endeavours while also feeling needed and appreciated. Professional athletes become experts in their craft and utilize their skills to entertain others. These physical skills and attributes have been cultivated over many years.

Experiencing a Loss of Identity

When an athlete retires, the feeling of loss surrounding one's skills and expertise may set in. Most athletes have spent immeasurable time and energy on their craft but have yet to perfect any other aspect of their life. Athletes enjoy being exceptional at something that most others cannot accomplish. During their playing career, athletes may feel exhausted from the training and travelling;

however, it is not until that lifestyle is concluded that athletes appreciate it. They grow fond of those patterns of professional sport. It might not even be the sport itself, but rather the subsidiaries resulting from it. The friendships, the locker room, the road trips, the triumphs, the challenges, the pain, the wins and losses, the laughs, and cries are what athletes miss the most about the game. It is not the game itself but everything that comes with playing it. In professional sport, remuneration may simply be a bonus for playing the sport, but the fundamental components the athletes will miss are the memories.

Dryden (personal communication, April 25, 2019) reiterated this phenomenon by noting that many of his former teammates do not miss the money; instead, they miss the feeling of being important to a team, community, and family. This may prove to be the most challenging aspect of retiring from sport. There is a significant void in an athlete's life once their playing days are completed. The question remains, how will the athlete fill that void? Will they find a way to move into a career that will be fulfilling and make them feel important again? Those who cannot find something meaningful and fulfilling will often live in the past glory of when they felt successful, influential, and thriving. Whether an athlete's retirement is planned or unplanned, the attention that follows the athlete gradually disappears, and people generally become less interested in the individual.

Transitioning from high-performance athletics can prompt various psychological and emotional issues, including depression, eating disorders, decreased self-confidence, and heightened drug and alcohol abuse (Grove et al. 1997, Lally 2007). Proactive treatment for these specialized individuals' mental health may prove to be a powerful tool. If sport organizations were required to provide resources to help balance the dominant narrative of performance and results, athletes would have the opportunity to take ownership of their mental state before transitioning from sport. Athletes need to discover something fulfilling in retirement to feel like they are making significant contributions in their lives. Lencioni (2007) cited that anonymity and irrelevance in the workplace are significant reasons people feel miserable at work (Lencioni 2007). Individuals want to know that they still matter. Retiring from sport can leave an athlete feeling irrelevant in their new career endeavours. Dryden (2013) revealed that some of his former teammates got into coaching and, as a result, felt valued and connected to a group.

Disengagement from high-performance sport generally occurs during the athlete's early adult years. Researchers have suggested that the typical age of disengagement from elite sport ranges from 26 to 34 years old (Erpic et al. 2004). This is usually much younger than most occupations. Typically, an elite athlete has devoted most of their life to intense training and competition. This often includes sacrificing other aspects of their lifestyle, including preparation for a career beyond sport (Shahnasarian 1992, Swain 1991). Researchers have contended that achieving excellence in one endeavour, such as sport, often prevents the development of post-career skills, a stented opportunity to explore alternative roles, and the sacrifice of meaningful relationships (Holt and Dunn 2004, Warriner and Lavallee 2008). Narrowing one's identity has typically been acknowledged as beneficial for the dominant role; however, this often jeopardizes the exploration of and investment in other appropriate or available roles (Lally 2007). The neglect of

other roles due to the preeminence of a single role may expose an individual to ensuing identity issues.

An athlete's identity often becomes foreclosed or constructed around their ability to perform in their athletic career (Carless and Douglas 2013, Warriner and Lavallee 2008). The literature surrounding identity in sport frequently examines the characterization of elite-level athletes in one-dimensional terms: solely an athlete (Hickey and Roderick 2017). At the expense of other social roles, this attachment to the athletic identity can invoke a consuming commitment to maintaining professional status (Lally 2007). Transitioning professional athletes are often examples of this rigid, distinctive individual who experiences various adjustment difficulties due to their attachment to a single identity (Lavallee and Robinson 2007). Thus, when an elite athlete is forced to leave high-performance sport, the retirement may affect not only one's athletic identity but one's overall sense of self (Lally 2007).

Just as retirement from work is ordinary for most individuals, all athletes inevitably leave high-performance sport (North and Lavallee 2004). An athlete's identity and attributes dramatically change when the end of their career comes earlier than expected or is forced on the athlete (Yao et al. 2020). Most former athletes will encounter changes in their identity, physique, emotions, and everyday behaviours as they accept a non-athletic way of life (Yao et al. 2020). Fernandez et al. (2006) suggested that an elite athlete's career has two primary components. First, reaching the highest level of sport requires a total physical and emotional commitment, relegating other interests in life to a secondary position. In contrast to other occupations, athletes generally leave their careers earlier, and career termination does not usually mean an easy transfer to a related occupational endeavour.

Transition Challenges

The possession of a strong and exclusive athletic identity has been associated with adjustment difficulties following retirement from sport, social isolation, and delays in career maturity (Martin et al. 2014). In addition, high-performance athletes are confronted with several financial, emotional, social, and occupational adjustments during the career transition process (Grove et al. 1997). Individuals with a strong and exclusive athletic identity may be susceptible to various emotional and social adjustment difficulties upon career termination (Baillie and Danish 1992, Brewer et al. 1993). One of the most significant issues for athletes who firmly dedicate themselves to the athlete role is that they may be less likely to plan for post-athletic career opportunities before their transition from sport (Grove et al. 1997, Pearson and Petitpas 1990).

One's commitment to high-performance sport may be at the expense of planning for future career endeavours, resulting in "zeteophobia", a term that Krumboltz (1992) coined to describe the anxiety people experience around career decisions. Like many young professionals today, athletes face the challenge of establishing and realizing a long-term career plan once their playing days are

finished. Researchers have suggested that a retiring elite athlete may have a more formidable challenge due to their focused efforts on athletics (Grove et al. 1997, Pearson and Petitpas, 1990).

Dryden (2013) commented on the challenges that high-performance athletes often face when transitioning from sport to the real world. Adjusting to the changes brought on by athletic career transition can transpire over several months or years, and in the most challenging cases, difficulties adapting can evolve into long-term mental health issues (Cosh et al. 2015, Fernandez et al. 2006). Mental health-related issues during the career of elite male athletes have been a topic of much public interest and attention in recent years (Doherty et al. 2016). Reardon and Factor (2010) suggested that the general public's tendency to idealize elite athletes has led people, including some within the healthcare industry, to assume a low prevalence of mental health issues in athletes. Additionally, researchers claim that elite athletes may negatively perceive help-seeking practices and often accept pain while minimizing signs of weakness (Sinden 2010, Steinfeldt and Steinfeldt 2012). Therefore, high-performance athletes may be less likely to willingly seek help from mental health professionals for support related to psychological distress during and after their playing careers (Doherty et al. 2016).

Investing in all areas of an athlete's health and well-being is an essential responsibility for sports organizations. Professional sports organizations hire coaches and other resources to teach their athletes technical and tactical strategies. They also employ staff to care for an athlete's physical health in Athletic Therapists, Strength and Conditioning Coaches, Doctors, Chiropractors, Massage Therapists and more. Each of these components is important to an athlete's preparation for competition. Arguably, the most critical component of an athlete's health and well-being that helps in his or her preparation is the state of their mental health. Through all the challenges that athletes endure due to their elite sport participation, sport organizations must consider their athletes' mental well-being. The expectation of elite performance should be complemented with an undeniable support network that can bring the most out of an athlete. This may include hiring a mental performance coach or sport psychologist to assist athletes and coaches in the process of winning.

Athletic injuries usually cause an immediate change in an athletic career and lead to negative emotional responses, loss of confidence, and performance decrements (Samuel et al. 2015). The inability to recover from injuries and perform at previous levels is one of the leading causes of premature retirement. The challenge of being injured can be detrimental to an athlete's mental health and well-being; however, actively coping with this forced change is within the athlete's control (Samuel et al. 2015). An athlete's decision to seek positive coping strategies reflects a conscious commitment to rehabilitate and return to full activity while managing the associated pain, frustration, and anxiety which often accompany the recovery process (Tracey 2003). This decision is influenced by the type of therapeutic technique involved in rehabilitation, the athlete's capacity for change, and the psychological support available to the athlete (Samuel et al. 2015).

The athletic career is a dynamic process consisting of various transitions (Samuel et al. 2015). Facing adverse situations may facilitate career transitions,

requiring athletes to apply effective coping strategies to maintain a meaningful athletic engagement (Samuel et al. 2015, Sauer et al. 2013). Athletes often internalize some of the feelings they regularly face, impacting their health, well-being, and athletic performance. Conferring with a mental performance consultant provides an athlete with the opportunity to express some of his or her thoughts, concerns, fears, dreams. All professional sport organizations should invest in mental performance professionals to help their athletes deal with these situations and emotions. Although not all athletes may take advantage of this available resource, it may significantly help the mental health and well-being of athletes seeking help. Incorporating mental performance consultants into the culture of high-performance sport could help eliminate the stigma surrounding mental health for future generations of elite athletes. This is something that players' unions should insist be a standardized practice for their members. Providing resources for players during their careers might help reduce some of the challenges players face when they inevitably encounter the transition process. Furthermore, mental health/performance consultants may help protect athletes from harmful coping strategies during or after their playing career.

Researchers have suggested that the quality of an athlete's adjustment to their post-sport life is imminent if athletic identity decreases (Cecic Erpic et al. 2004, Grove et al. 1997, Webb et al. 1998). Lally (2007) explored this further by recording the changes in identity that took place during pre-retirement and post-retirement for student-athletes. Employing various coping strategies, such as involvement in other physical and academic pursuits, helps student-athletes with identity issues and helps prepare them for life after sport. As a result, athletes developed a post-retirement identity and reported a smoother transition to retirement (Lally 2007). The authors acknowledge that employing this type of research involving professional athletes may be difficult since there are differences between student-athletes and elite/professional athletes. Nonetheless, the literature suggests that when transitioning from sport is accompanied by a decrease in athletic identity, athletes have experienced greater social adjustment (Martin et al. 2014).

Researchers have expressed that the changes an athlete experiences during transition can present significant challenges as they aspire to address a variety of complex emotions, overcome a shift in their identity, and handle the disruption in their social networks (Brown et al. 2018, Park et al. 2013). However, researchers have determined that one of the most critical characteristics that impact the quality of an athletes' transition from sport is the voluntariness to retire (Kuettel et al. 2017, Martin et al. 2014). Athletes who retire voluntarily have reported increased life satisfaction after they retired from sport (Martin et al. 2014). Furthermore, a voluntary decision to retire from elite sport has proven to be more beneficial, as athletes feel more in control of their transition process (Kuettel et al. 2017). These findings support the need for career education programs that emphasize independence and career planning during the athletic career transition process (Martin et al. 2014). Hence, if an athlete establishes a conclusive plan for their post-playing career prior to their inevitable retirement, the transition process may be more favourable.

The Athlete's Role in Effectively Transitioning

Athletes' challenging transition experiences out of high-performance sport have been well documented. Less is known about an athlete's family members' experience during the transition process (Brown et al. 2019). Indeed, research has shown that athletes have reported hardship from various mental health issues following retirement, including anxiety, depression, eating disorders, and substance abuse. However, significant transitions in life can be instigated, influenced, and resolved by the relationships that individuals share with others (Brown et al. 2019, Gouttebarge et al. 2015). Bianco and Eklund (2001) refer to social support as the social interactions to induce positive outcomes. A strong support network is vital for any individual during adverse situations. Research surrounding retirement from work found that people with higher-quality relationships were more satisfied with retirement and found it easier to adjust to transitional changes when they left work (Sherry et al. 2017). An athlete's closest family members, most notably parents and partners, are often the most critical source of support during the transition process (Brown et al. 2019).

Support from friends, teammates, coaches, administrators, and sport psychology professionals can, and likely do, help athletes during their transition from high-performance sport; however, they are only one component of the process. Athletes who genuinely feel supported by parents and partners during their career transition have found it easier to adapt to the changes that they experience (Brown et al. 2019, Park et al. 2013). This could result from an athlete feeling like he/she has let his/her family down by retiring from sport. Parents and partners have sacrificed much of their time, energy, money, and emotional support to help propel their loved ones in the pursuit of success in sport. Often, they have seen the athletes develop within their sport and supported them for years leading up to their professional or elite sporting opportunities.

Sport can become synonymous with the lives of the individual and his/her supporting company. Therefore, when an athlete involuntarily retires from sport, they may suffer from guilt and feel as though he/she has let their family down. Knowing the amount of time, money, and effort parents and partners have invested in pursuing a successful sport journey can weigh on the athlete's mental well-being during the transition process. It can be challenging for an athlete to face the people that have helped him/her get so far in the journey and express to them that they are no longer participating in elite sport. Involuntarily leaving sport due to injury, decreased performance, or de-selection can cause many athletes to feel they have failed themselves and their families. Park et al. (2013) determined that the extent to which athletes control their decision to leave high-performance sport influences their subsequent adjustment to retirement. Thus, those who are forced to retire for unplanned reasons such as de-selection or as a result of injury are at a greater risk of encountering difficulties during the transition process (Park et al. 2013).

There is clear evidence that suggests parents and partners play an essential role in the process of athletic career transition (Brown et al. 2018). However, there is little research outlining the experience that parents and partners go through

during their loved one's ultimate transition from sport. Goldsmith (1992) suggested that people providing social support to others frequently face challenges such as feeling anxious about their role and support of the retired athlete. Those providing support can also enter a depressed state as they adapt to the retired athlete's new reality and struggles (Brown et al. 2019, Coyne et al. 1990). The challenges and difficulties faced by the athlete often negatively impact parents and partners. Family members of transitioning athletes experience their own transitions. Parents and partners have felt that their relationship with the athlete was distant or detached, with each member of the relationship experiencing a comparable, but distinctly different transition (Brown et al. 2019). Often, parents and partners are interconnected with an athlete's sporting endeavours by participating in their experiences and providing support during their athletic journey. This situation may include travelling to watch events, taking part in team activities, and relishing the experience of watching their loved one participate in competitive sport. Family members can become deeply emotionally invested in the athlete's career. They enjoy the athlete's experience during their career, and they feel part of that success; sport can become a significant component of their own identity (Brown et al. 2019). When an athlete ultimately leaves his/her competitive sport career, family members experience a transition of their own.

Making the Transition a Shared Experience

This transition from sport can be a shared experience for both the athlete and their support network. One of the most challenging issues for parents and partners has been identifying the appropriate type and amount of support to provide (Brown et al. 2019). Adequate balance between being supportive and caring while remaining honest and realistic about the uncertainty of the transition process can be challenging for athletes' family members. Emotional support has been the most common type of support parents and partners provide for athletes, especially in the early stages of transition (Brown et al. 2019). This type of support is particularly extended to help athletes deal with the shock, anger, and sense of loss that they experienced. Athletes have reported difficulty in asking for help from others, even when they are encountering significant psychological distress (Brown et al. 2018).

Another common challenge that athletes experience during transition is a loss of self-esteem, which appears to be related to uncertainty around their sense of self and potential loss of identity (Brown et al. 2019). Not seeking help can make these challenges much more daunting for athletes to overcome. Parents and partners also reflected these feelings of loss, which reiterates the theme that transition from elite sport is a shared experience. In particular, parents have reported feelings of loss during the early stages of retirement from sport (Brown et al. 2019). Lally and Kerr (2008) found that the parents of former competitive gymnasts struggled to fill the void that their daughter's retirement left in their life years after she retired. Parents and partners have also described athletes' concerns with money and their uncertainty with what they could do to earn a living as a significant source of stress. As previously mentioned, athletes who have developed a robust athletic

identity may have neglected the pursuit of other career endeavours. This diminished identity can be a mounting challenge for not only the athletes but potentially their families as the athlete may have retained the majority of the household's income. Parents and partners can offer advice on career options and help an athlete in the process of looking for work.

An athlete's support network is critical during the career transition process. The sources and types of social support that athletes receive during the transition out of sport have been documented. Nevertheless, it is necessary to consider how an athlete perceives, deploys, and regulates the provided support (Brown et al. 2018, Brown et al. 2019). Brown and colleagues (2018) conducted a study that examined athletes' experiences of social support during their transition out of elite sport. The study involved interviews with eight (four male and four female) international level athletes (seven of whom participated in the Olympic Games). At the time the research interviews were conducted, the former athletes had been retired from elite sport between 2 and 12 years. Participants described the period immediately following their retirement as emotionally discomforting, feeling lost, confused, and uncertain about the future. The participants needed to feel valued and understood by family, mentors, peers, and the sport community. Additionally, the former athletes needed the skills and confidence to ask for support and access social networks. Every respondent confirmed that the support that they received from their respective sport organizations was limited (Fernandez et al. 2006). Some of the participants reported difficulties dealing with the perceived disappearance of their "elite" status. One participant decided to pursue a career in coaching, which helped the participant feel a greater connection to the sport while establishing new social ties. Coaching prompted the former athlete to see himself as a leader of what he perceived to be a high-status group. Furthermore, the former athlete utilized leadership skills he developed through his sport experience and applied them to a new setting. One of the essential components of the participants' experiences as they advanced through their transition from sport, was their involvement in supporting others. Many former athletes characterized themselves as selfish during their sporting career and thought that selfishness was a necessary characteristic of elite athletics. The former athletes who adjusted effectively were able to reclaim their sense of self-worth by re-establishing their identity and sought to help others while they had transitioned from elite sport.

A Case for Teams, Leagues, and Unions Heightening Support for Athlete Transition

The recent emphasis on player health and safety in professional sport, including players' mental well-being has been evident in research and the media. Should sport organizations and the players' unions have a role and responsibility to support athletes transitioning from elite and professional sport? To answer this question, one must first consider the values of professional sport. At the university level, the values of sport are primarily based upon providing student-athletes with an opportunity to participate in sport because of the positive outcomes sport can

provide. It provides student-athletes with an environment to facilitate growth and development during the educational experience. Student-athletes are unpaid and are generally completing a degree that will translate into a future career.

Recently, many colleges and universities have taken the initiative in promoting greater health and well-being practices for students (Holm-Hadulla and Koutsoukou-Argyraki 2015). With the demands placed upon student-athletes to perform on the field of play and in the classroom, there has been significant attention focused on student-athlete mental health and well-being (Moreland et al. 2018). Educational institutions operate with student health and well-being in mind and invest in their resources accordingly. Professional sport is inherently different from collegiate athletics as it operates with a business model in mind. Sport organizations and professional leagues focus on profits and creating a competitive balance to ensure their product is appealing to consumers. The expression "it is good for the league" is frequently used when discussing parity of teams, close competition, and upset victories. Many professional leagues have entry or dispersal drafts to ensure player talent is spread fairly across the league. This process further emphasizes the commercial nature of professional sport.

Each professional sports league has a different business model, yet, the primary focus remains on the commercial element of sport. The athletes in professional sports are mere commodities of the product. Sport organizations and professional leagues generally do not address their athletes' health and well-being specifically in the context of career transition. Professional sport organizations attempt to stay atop the league ranks by continually evaluating the athletes for their on-field performance. During this forward-thinking process, transitioning athletes can be disregarded and neglected. As presented in the research, athletes enduring the process of retiring from elite sport face some significant physical and psychological challenges (Grove et al. 1997, Lally 2007). Unlike educational institutions, it is not a core value of a professional sport organization to invest in their athletes' mental well-being, especially when the individual is no longer part of the organization's plans. The athletes are the ones that attract the fans and allow the business model to operate successfully; however, this does not prevent sport organizations from neglecting athletes' mental well-being during their transition from elite competition.

The lead author of this manuscript played professional football and professional lacrosse. He knows that in the Canadian Football League, when an athlete suffers a career-ending injury during competition, the organization provides medical coverage for one year following the precise date of the injury. If the effects of the injury extend beyond this time frame, the athlete must personally pay for his treatment. In the National Lacrosse League, the resources are even more deficient. Athletes are offered no compensation or support if an injury is suffered in training camp. A career-ending injury will most certainly provoke many challenges upon the athlete due to the unpredictable nature of the transition identified throughout the literature. Moreover, the coverage supplied by the team covers expenses related to the physical injury, but not the mental health response resulting from the injury and the career termination. Coverage for mental health-related treatment during the transition process, such as mental performance consultants and sport psychologists, is to be covered by the athlete. Researchers claim that elite athletes

often avoid seeking help and routinely accept pain to minimize signs of weakness (Sinden 2010, Steinfeldt and Steinfeldt 2012). Consequently, they may be less likely to willingly request support from mental health professionals related to psychological distress during their careers and retirement from sport (Doherty et al. 2016). If player unions and sport organizations mandated mental performance therapy and consultations during the retirement process, the stigma surrounding seeking support may subside. Therefore, the lasting effects of psychological challenges might be reduced for retiring athletes. Some may refuse the treatment initially; however, breaking the "showing no signs of vulnerability" narrative in elite sport with mental performance professionals may prove to be incredibly beneficial for elite athletes enduring career transitions.

While it is inevitable that an elite athlete's playing career will come to an end, how it ends has a significant role in the athlete's transition experience (Knights et al. 2016). Athletes who planned or voluntarily retired from sport experienced managed adaptation more effectively (Blinde and Stratta 1992, Taylor and Ogilvie 1994, 2001). Consequently, it would be valuable for future studies to investigate further the effects of unplanned retirement on elite athletes (Knights et al. 2016). Future research should focus on involuntary retirement and possible interventions to assist athletes through this life stage. Studies examining elite athletes during the initial phase of retirement could help provide a more extensive perspective of the transition cycle of an elite athlete. This type of research could result in the development of more tailored interventions aimed at improving the athlete's mental health during the retirement process (Knights et al. 2016). It may also be beneficial to conduct comparison research between athletes from various sports and between genders as there may be a variety of factors that produce different transition experiences for athletes. These factors include the type of sport, level of participation, team sport versus individual sport, exposure, and salary (Knights et al. 2016). Dryden discussed some of the different challenges facing hockey players compared to football players. Additionally, the universal knowledge describing "elite athletes" seems restricted to explain the behaviour of athletes from different cultures and sports (Stambulova et al. 2009). Therefore, there is a greater need for more specific studies as it can be challenging to generalize transition from elite sport due to the variety of factors involved.

As previously mentioned, high-performance student-athletes are encouraged to utilize their college experience as an opportunity to formulate career plans outside of sport regardless of their potential of competing (Tyrance et al. 2013). For student-athletes, it should be emphasized more emphatically that finishing one's educational journey prior to pursuing a professional career in sport may greatly benefit one's post-playing career. When the individual's inevitable retirement from sport occurs, the challenges of transitioning into a new career may be less strenuous. Most elite athletes' "work" careers last considerably longer than their athletic endeavours (Tyrance et al. 2013). Completing their educational endeavours prior to or during their sports career is advisable and may translate into greater future professional success. Arranging a post-playing career pathway is essential for athletes to consider during their high-performance sport involvement.

Athletes, their teams and organizations, and their unions all have to take

ownership of this situation and collectively make things better for retiring athletes. The following list is a starting point for all parties committed to changing the channel on this persistent problem.

Recommendations for Athletes

1. Recognize that transitioning from sport is inevitable.
2. Be proactive and map out post-career ventures while playing.
3. Channel the discipline needed to excel in sport to the post-sport career.
4. Continue to earn educational degrees and credentials (Master's degree, certificate programs, additional credentials).
5. Network with industry leaders during the playing career.
6. Aim to specialize in an industry or role during the sporting career.

Recommendations for Teams/Leagues and Unions

1. Take responsibility for the athletes and their inevitable retirement seriously and ensure that they are set up for success following their playing days.
2. Provide life coach services to assist players with the career transition.
3. Mandate life coaching sessions for active and retired athletes.
4. Provide academic success counsellors to assist players in completing degree/ certificate programs.
5. Create internship opportunities for retired athletes with corporate partners to help athletes gain the experience, contacts, and confidence necessary to efficiently transfer into a post-athletic career.
6. Provide tuition bursaries for former players wishing to complete degrees/ certificate programs.
7. Provide financial planning consultants for former players.
8. Review pension and health benefit programs for former players and ensure that they meet the needs of retired players.
9. Schedule regular check-ins with former players to see how they adapt to life following their playing careers and provide the necessary support.

Conclusion

Professional and elite athletes have received less attention than transitioning student-athletes, yet it is still a concerning reality for elite sport performers. It is widely accepted that elite athletes face physical and psychological challenges during their careers and the ultimate transition phase from sport (Bruner et al. 2008). Gradually, the challenges associated with career transition in sport are being recognized; however, the narrative surrounding elite sport soliciting athletes to suppress signs of vulnerability must shift to accommodate the difficulties these athletes face during their retirement process. Sport organizations, administrators,

coaches, and sport psychologists have begun to acknowledge the need for educational and vocational training for retiring athletes at all levels of sport (Harrison and Lawrence 2004). Sport organizations and professional player associations must recognize the demanding obstacles that retiring athletes face, become involved in solving the issues and, in turn, provide adequate resources and support to accommodate athletes' transitions. Though resources must be available for athletes during the transition process, it is ultimately the athlete's responsibility to take advantage of provided support. Offering greater resources and support is feasible for sport organizations and player associations however, the retirement process must be further recognized by these parties as an essential matter that nearly all elite athletes encounter.

Transitioning from sport can be challenging for elite and professional athletes alike; however, their participation in sport has dramatically benefited their potential next career. This manuscript highlights that elite athletes develop leadership qualities sought after in sport and desired in other industries. Working as a team member and developing resiliency to overcome presented challenges are features that many high-performance athletes achieve during their sporting careers. These attributes will serve athletes well during the transition period and in their new career endeavours. The challenges and adversity that high-performance athletes face in sport shape their character and help prepare them for future success outside of sport. Nevertheless, the teams and leagues that have benefitted from their services have a responsibility to provide the necessary supports.

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The Role of Resilience on Stress and Recovery of Elite Athletes in Nigeria

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Resilience is an important psychological factor in sport that contributes greatly to the ability to overcome and adapt positively to difficult and challenging situations. Elite athletes face a lot of pressure, stressor and adversity from sport and non-sport milieu which affect their psychological well-being and sport performance. Ability of the elite athletes to cope, overcome and adapt to various sources of pressures, stressors, adversities and recover quickly will make them to attain optimal health, peak performance and achieve success. The purpose of this study was to examine the role of resilience on stress and recovery of elite athletes in Nigeria. Participants were 187 subjects (118 males; 69 females), age ranged between 18years and 42years (mean=26.4; SD=4.82) were selected from various sports using purposive sampling technique to select elite athletes who participated in 2021 National Sports Festival in Nigeria. Connor-Davidson Resilience Scale-10 (CD-RISC-10) and Stress-Recovery Questionnaire for Athletes (RESTQ-52 Sport) were used for data collection. Shapiro-Wilk Test, Pearson Product Moment Correlation (PPMC) and Structural Equation Modelling (SEM) were employed for data analysis. Results of the study showed that resilience correlated with the factors of stress and recovery. Structural equation modelling results showed that resilience had significant direct effect on stress and recovery with variability of 26% and 55% respectively. Resilience negatively predicted stress and positively predicted recovery. The model invariant was not significant to gender and sport-type of the participants. It was therefore concluded that resilience plays an immense role in coping, overcoming and positively adapting to situations of stress and recovery of elite athletes.

Keywords: *resilience, stress, recovery, adversity, elite athlete*

Introduction

Elite sport is an avenue where both the training and competition are highly challenging. As a result, elite athletes experience a number of stressors, adversities, and failures. The competitive level of the game makes it difficult for elite athletes to cope and recover maximally which in turn affect well-being and performance. The stressors experienced by this unique population are not limited to sporting

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environment, but also to non-sporting milieu ranging from short form of stress (e.g., losing points in a match) to long forms of stress (e.g., severe injury, parental divorce or demise of loved ones) (Rees et al. 2016, Sarkar and Fletcher, 2014, Fletcher and Hanton 2003), and athletes may experience performance slump/ failure due to overtraining or non-functional overreaching if recovery required is inadequate over a long period of time (McCormack et al. 2015). Resilience has been found to play a significant role in enhancing athlete's psychological abilities to overcome adverse situations, recover from stress, injury and attain success (Sanni 2019, Codonhato et al. 2018, Galli and Gonzalez 2014, Fletcher and Sarkar 2012, Galli and Vealey 2008). Therefore, examining the role of resilience on stress and recovery among elite athletes is warranted.

According to Bryan et al. (2018), resilience is "a dynamic process that deals with the ability to maintain regular functioning despite various challenges or to through utilization of coping resources". Resilience is an indicator of the capacity to face and cope with difficult situations and reduces undesirable effects from the stress process (Fletcher and Fletcher 2005). Fletcher and Sarkar (2013) emphasize resilience as "the role of mental processes and behaviour in promoting personal assets and protecting an individual from the potential effect of negative stressors". Research has suggested that for athlete to achieve at higher level, he or she must experience different adversities (Howells and Fletcher 2015, Tamminen et al. 2013, Collins and MacNamara 2012, Sarkar and Fletcher 2014) and be able to manage and adapt to the situation. Therefore, for better understanding of the role of resilience in this study conceptual model of sport resilience by Galli and Vealey (2008) was used as theoretical background. The model states that an adverse condition will produce an agitation process in the athlete, characterized by series of unpleasant emotions and mental fights. The agitation can produce positive results, strengthening and fostering the athlete's psychological capacities and consequently helping future agitation processes. Galli and Vealey (2008) indicated that additional knowledge of the resilient qualities that enable sport performers to positively adapt to stressors is necessary to enhance understanding of resilience in sport.

Studies have shown that the pressure exerted on athletes competing at various levels leads to a reduced participation with the sport and encourage higher rate of burnout (Gould and Dieffenbach 2003). Kellmann (2002) indicates that athletes experience psychological breakdown from the effects of poor and under-recovery than from stress. Bellinger (2020) asserted that the loads or pressure exerted in form of training stress on athletes are targeted to make body stronger than recovering to previous state. Studies have shown that resilience helps to cope with stress (Codonhato et al. 2018), enhance athlete's recovery from injury (Sanni 2019), overcome all stress-related competitive factors (Sarkar and Fletcher, 2014), facilitates sport achievement, success and psychological well-being (Drury 2019, Nezhad and Besharat 2010), unveils individual's skills that protect athlete from negative influence of stress (Pedro and Veloso 2018), reduced anxiety, improved self-confidence and indicated greater positive attitude to perform at elite level (Martin-Krumm et al. 2003), lower anxiety level and depression (Lyu et al. 2022) serves as protective factor between stress and mental health (Dailey 2022)

improved emotional regulation processes (Yi et al. 2005) and predicts faster physiological recovery from stress (Tugade and Fredrickson 2004). Solomon and Becker (2004) indicated that resilient athlete has ability to overcome failures, remain confident and mindful of the present moment. Resilience has shown to correlate with the factors of stress and recovery (García Secades et al. 2016), negatively related to stress and burnout syndrome (Melguizo-Ibáñez et al. 2022), negatively associated with anxiety and depression; and positively with optimism, self-efficacy and self-esteem (Lee et al. 2013).

In regards to the crucial impact of resilience on recovery, Brown et al. (2015) demonstrated how the athletes have not only recovered from adversity, but also how they have acquired additional resilient qualities as a response to adversity. Another study by Cevada et al. (2012) showed that resilient athletes are well equipped to overcome various challenges and stressors of sport settings, which in turn increased the chance of having a great and successful career in sports. Studies have shown that there are interactions that exist between athletes, environments and goals as it is important to an athlete's ability to adjust to the dynamic process of recovery and resilience (García Secades et al. 2016, Yi et al. 2008, Richardson 2002, Kellmann and Kallus 2001).

Gender and sport-type are significant factors that play unique roles in psychological resilience of athletes. Gender personalities of male and female are important elements that distinguish athletes from developing and exhibiting resilience skill. On the other hand, sport-type that is, individual and team sports, has been shown to play a substantial role in influencing resilience ability of the athletes. Plethora studies have revealed that resilience ability of male and female are quite different with most studies indicating higher resilience among males than females, and team sport athletes reported to have higher resilience than individual sport athletes (Blanco-García et al. 2021, Onturk et al. 2020, Biricik and Sivrikaya 2020, Küçük Kiliç 2020, Codonhato et al. 2018), with the exception of few cases that reported higher resilience among female athletes (Reche-García et al. 2020)

Elite athletes experience numerous challenges which include pressure, performance failure, distractions, sleep disturbances, burnout, injuries, loss of loved ones, coach and teammates personality issues, personal and family issues among others (Fletcher and Arnold 2017). All these stressors affect performance, recovery, well-being and performance of elite athletes. Elite athletes require resilience to overcome these challenges in order to cope with the demands of competitive sport and recover maximally. Studies have shown that resilience is an integral aspect of excellence and achievement in sport (Özdemir 2019, Erim and Küçük 2017, Morgan et al. 2015). However, there is need to extend the evidence to ascertain the importance of resilience in coping with stress and recovery process in sport among elite athletes. Most of the studies conducted on impact of psychological resilience have focused on qualitative research, while there is little or dearth of studies that adopted quantitative research especially in sport settings. Therefore, the purpose of this study was to examine the role of resilience on stress and recovery of elite athletes in Nigeria. This study hypothesised that resilience would negatively affect stress; and positively influence recovery of elite athletes.

Methods

Participants

Participants in this study comprised athletes that represented Oyo State in 2021 National Sports Festival in Nigeria. A sample of one hundred and eighty-seven (n=187), (118 males; 69 females), age ranged between 18years and 42years (mean = 26.4; SD = 4.82) were purposively recruited for this study. Participants were drawn from various sports which include athletics (n=31), volleyball (n=12), handball (n=26), swimming (n=8), basketball (n=20), tennis (n=8), football (n=22), table tennis (n=13), badminton (n=6), combat (n=14), weightlifting (n=12), Cycling (n=6) and others (n=9). 107(57.2%) of the participants were drawn from individual sports and 80(42.8%) of the participants were drawn from team sports.

Measures

Resilience

Participants' resilient characteristics were measured using the 10-item Connor-Davidson Resilience Scale (CD-RISC) developed by Campbell-Sills and Stein (2007). The focus of the CD-RISC is on personal resources deemed appropriate for positive adaptation to adversity. The 10-item version of the CD-RISC is a revised version of the original 25-item scale (Connor and Davidson 2003). Examples of items in CD-RISC include "I am able to adapt when changes occur", "under pressure, I stay focused and think clearly", "I am not easily discouraged by failure". The scale is rated on a 5-point scale (0-4), range from not true at all (0), rarely true to true nearly all of the time (4) with higher scores reflecting greater resilience. The scale has been found to be psychometrically superior in a sport context (Gucciardi et al. 2011). In the current study, the scale is internally consistent ($\alpha = 0.91$).

Stress-recovery

The Recovery and Stress Questionnaire for Sports (RESTQ-52 Sport) was used to assess stress and recovery level of the participants. The REST-Q 52 Sport was used over that of the RESTQ-76 items, because information in the general scales (RESTQ-76) are not the focus of interest (Kellman and Kallus 2001). It consists of 12 basic scales, with seven additional sports specific scales which is using a self-report approach, attempts to evaluate physical, subjective, behavioural and social aspects of stress and recovery. The RESTQ-52 Sport consists of 52 items grouped into 19 scales, which consists of 10 stress subscales (general stress, emotional stress, social stress, conflicts/pressure, fatigue, lack of energy, physical complaints, disturbed breaks, emotional exhaustion and injury) and 9 recovery subscales (success, social recovery, physical recovery, general well-being, sleep quality, being in shape, personal accomplishment, self-efficacy and self-regulation).

The 52 items are self-rated on a 7-point Likert scale and indicated how often the subject has participated in various activities during the past three days/nights. The internal consistencies and reliability of the RESTQ-Sport have previously been reported with Cronbach's alpha (0.67–0.88) and the test-retest reliability (r=0.51–0.81) (Kellmann and Kallus 2001). The internal consistencies and reliability of the RESTQ-52 in this present study ranged from Cronbach's alpha (0.63–0.79)

Procedures

Ethical clearance was obtained from the first author's institution. Athletes were then invited to participate in the survey after meeting with the respective authorities and head coaches of various sport units within Oyo State Sports Council, Adamasingba, Ibadan, Nigeria. The aims of the study were clarified to the participants. Upon securing informed consent from the participants, the questionnaire was administered in a quiet and conducive environment before their usual training sessions commenced. The participants were informed that participation in the study was voluntary and they have the right to withdraw at any time. The participants were also informed that there were no wrong or right answers for their responses as data collected was assured with great confidentiality. The filling of the questionnaires was about 20 minutes.

Data Analysis

Shapiro-Wilk test was used for data normality distribution. Descriptive statistics of frequency count, percentage and mean was used to analyse demographic information of the participants. Pearson product moment correlation was used to determine the correlations among the variables at $p<0.05$ significance level.

Main analyses were conducted through Structural Equation Modelling (SEM) using Analysis of moment and structure (AMOS) 24 program. The model was tested using maximum likelihood estimate (MLE) to test initial hypothesis that resilience has a direct influence over athletes' stress and recovery. Besides, the resilience as an observed variable, two latent variables were theorized after the 19 subscales from RESTQ-52. Latent variables were composed by the questionnaire's respective subscales named "Stress" and "Recovery".

SEM was tested by the 2-Step method, verifying measurement variables' adequacy and models identification with latent variables before performing the structural equations. Step 1 – Confirmatory factor analysis of the measurement model, and Step 2 – Identify and specify the structural model, establishing paths for the latent variables. Confirmatory factor analysis of a two-factor measurement model was performed with "stress" and "recovery" as latent variables.

Results

Descriptive Analysis

Results on table 1 reveals the relationship that exist between resilience and the factors of stress and recovery; resilience negatively correlated with the factors of stress; conflict (r=-0.225), burnout (r=-0.205), lack of energy (r=-0.238), but positively correlated with physical compliant (r=146*). On the other hand, resilience positively correlated with the factors of recovery; general well-being (r=0.372**), sleep quality (r=0.343**), physical recovery (r=0.372**), be in shape (r=0.240**), social recovery (r=0.313**), success (r=0.444**), personal accomplishment (r=0.457**), self-efficacy (r=0.426**) and self-regulation (r=0.322**). By implication, increase in athlete's resilience will reduce stress and increase recovery.

Hypothesis Testing

Direct Effect of the Variables

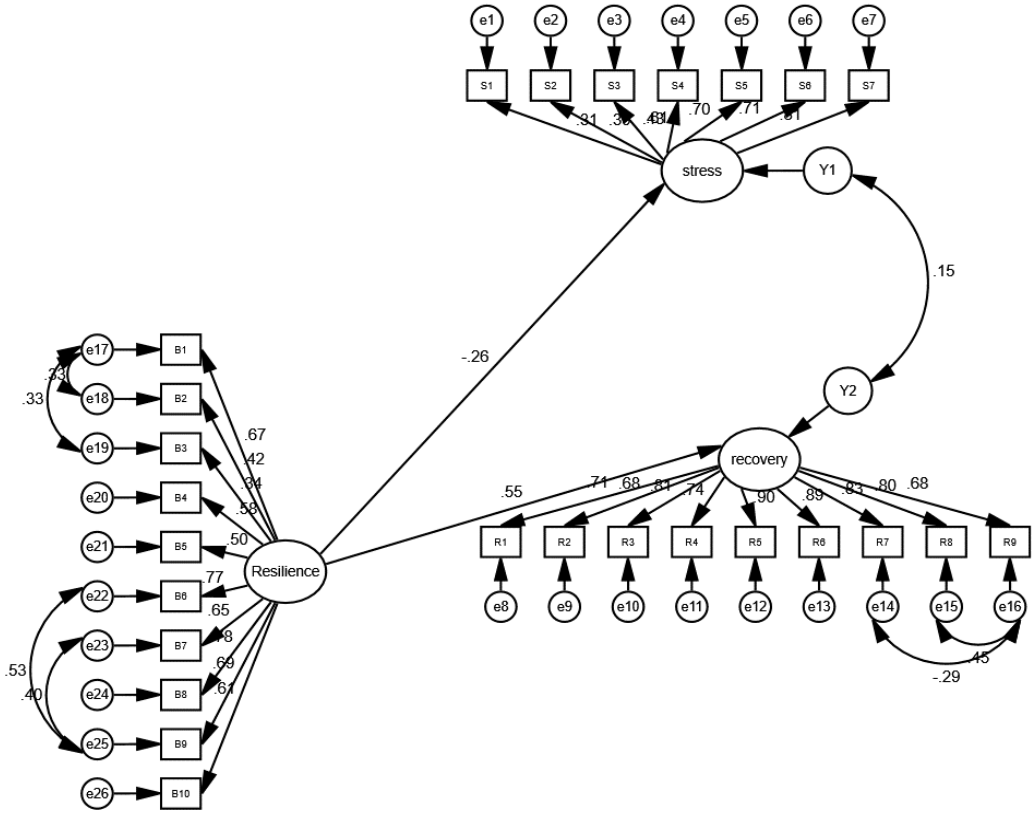
From the adjusted SEM (i.e., Figure 1), resilience had significant direct effect on stress (β=-0.26). This indicates that for every 1% increase in the standard deviation of resilience will reduce athletes' stress by 26%. While resilience had significant direct effect on recovery (β=0.55). This implies that 1% increase in athletes' resilience will increase their likelihood in achieving recovery by 55%.

Table 1. *Maximum Likelihood Estimate showing Fitness Indexes of Resilience on Stress and Recovery Model*

Model	χ^2	df	P	GFI	NFI	CFI	RMSEA	RMR
Initial model	1931.259	594	0.000	0.605	0.543	0.626	0.110	2.414
Adjusted model	1758.295	580	0.210	0.789	0.850	0.892	0.061	0.094

Notes: χ^2, chi-square; df, degree of freedom; P, significance; GFI, goodness-of-fit index; NFI, normed fit index; CFI, comparative fit index; RMSEA, root mean square error of approximation; RMR, root mean square residual.

Figure 1. *Adjusted Model Showing Direct Influence of Resilience on Stress and Recovery*



Where: Y- Disturbance; e- error.

Table 1 reveals that the initial (hypothesized) model recorded a fitness value; χ^2 (594)=1931.259, p>0.001, but inferior to the reduced model which recorded χ^2 (580)=1758.295, p<0.05. The non-significant chi-square here indicates that the fit between the model and the data is not significantly worsened. This inference is made based on the affinity goodness of fit estimate have for sample size. Based on the recommendation by Cohen (2013) and Tabachnik and Fidell (2007) the p-value notwithstanding the lesser the chi-square value the better the model. To further ascertain the fitness of the reduced model over the initial model other fit indexes were considered: Normed fit index (NFI)=0.850<0.95; Comparative fit index (CFI)=0.892<0.90; Root mean square error of approximation (RMSEA)= 0.061=0.06. However, root mean square residual (RMR)=0.094; indicates the amount by which the estimated model variance and covariances (i.e., re-produced) differ from the observed variance and covariances=0.094. This implies that the reduced model gained an incremental fitness over the initial (hypothesized) model, partially satisfying all the criteria for a good model. This indicates that significant path ways are possible paths that predict the variation observable in stress and recovery. Therefore, the reduced model is a close representation of the data

Table 2. *Models Invariance Analysis as a Function of Gender and Sport Type*

Groups	**Stress**		**Recovery**	
	B	**r^2**	**B**	**r^2**
Gender				
Male (1)	-0.250	-0.137	0.531	0.380
Female (2)	-0.224	0.033	0.566	0.482
Sport type				
Individual (1)	-0.243	-0.106	0.672	0.657
Team (2)	-0.372	-0.145	0.732	0.221

Table 2 reveals the variation that exists in the pathways based on group variance. It shows that across the group, resilience negatively predicted stress and positively predicted recovery with slight variances in their beta weights contributing between -0.224 (-) -0.372, that is resilience accounts for between 22.4% to 37.2% reduction in stress, while resilience accounts for between 53.1% to 73.2% recovery. This indicates that variation between groups is not significant enough to declare variance in the model. Therefore, resilience on stress and recovery model are invariant to gender and sport-type.

Discussion

The purpose of this study was to examine the role of resilience on stress and recovery of elite athletes in Nigeria. In the present study, the results presented an immense contribution to the understanding of resilience role in sports setting, confirming initial hypothesis as expected that resilience would negatively affect stress, while positively influence recovery. This suggests that psychological resilience has an important role in coping with stress and recovery of elite athletes.

The present finding is consistent with the conceptual model of sport resilience by Galli and Vealey (2008) adopted for this study. The model states that an adverse situation will produce an agitation process in the athlete, characterized by a wide range of unpleasant emotions and mental struggles. The agitation can have positive outcomes, strengthening and improving the individual's psychological capacities and consequently benefiting future agitation processes. Moreover, resilience will have positive outcomes to overcome and manage stress successfully, contributing to improvement in athlete's ability to cope and overcome future stress and adversities encountered in sports; and also maintain optimal well-being. With this, resilient elite athletes are expected to have more coping resources to stress and recovery.

The present finding is further consistent with the study of Fletcher and Sarkar (2012) that an athlete's ability to deal with and overcome all stressors associated with the competitive environment, and in particular their ability to use these opportunities to elevate their performance would be reflective of their psychological resilience. The authors further indicated that the importance of exposure to stress is something that generated successive levels of coping and adaptation, with this being one of the possible differences between higher and lower-level-performance athletes put forward. Similarly, Codonhato et al. (2018) found that psychological

resilience helps to relieve stress and determine success in sports. Dailey (2022) indicated that resilience is significant and serves as a protective factor between stress and mental health. Nezhad and Besharat (2010) showed that resilience has positive correlation with sport achievement and psychological well-being; and negative correlation with psychological distress. The authors added that the increase in the level of resilience brings about an increase in sport achievement and psychological well-being level of athletes. In addition, Pedro and Veloso (2018) found that athletes' resilience shows personal skills that protect individuals from the negative effects of stressful events. These unique skills allow athletes to have better and easier adaptation to negative and stressful circumstances often experienced in environment/individual interaction events

Moreover, the finding of this study indicates that resilience negatively correlated with the factors of stress; conflict, burnout, lack of energy, but positively correlated with physical compliant. These relationships corroborate with the results obtained in the previous research by García Secades et al. (2016) that scores for the various stress factors in the RESTQ-Sport correlate negatively with resilience, whereas recovery factors correlate positively. This is also in accordance with the study of Nezhad and Besharat (2010) that resilience is correlated with various psychological variables closely linked to performance, in such a way that there are positive correlations with psychological well-being or sporting achievement and negative correlations with psychological distress. Similarly, Melguizo-Ibáñez et al. (2022) revealed negative relationship between stress and resilience; and the same between resilience and burnout syndrome, while Lyu et al. (2022) confirmed significant inverse relationship between resilience and both somatic and cognitive anxiety and further demonstrated negative relationship between resilience and depression. A meta-analysis conducted by Lee et al. (2013) also confirmed the existence of negative associations of resilience with anxiety or depression and positive ones with optimism, self-efficacy and self-esteem.

Consequently, the results of this present study demonstrate that resilience has a direct positive influence on recovery. This coincides with the finding of Brown et al. (2015) that the winter sports athletes indicated how they have not only recovered from adversity, but also how they have acquired additional resilient qualities as a response to adversity. Cevada et al. (2012) showed that more resilient athletes are better prepared to overcome the challenges and stress of sporting environments, a fact that increases the probability of having a successful career in sport. Richardson (2002) and Yi et al. (2008) showed that interactions between athletes', environments, and goals play a pivotal role in an athlete's ability to adapt and/or optimise the dynamic process of recovery and promote resilience

Furthermore, the findings of the present study indicated that resilience positively correlated with the factors of recovery; general wellbeing, sleep quality, physical recovery, be in shape, social recovery, success, personal accomplishment, self-efficacy and self-regulation. The positive relationship between resilience and recovery could be attributed to the personal, social, environmental, psychological resources and other factors that being employed by the athletes to promote their general well-being, integrate with team members, believing in oneself on executing a particular task successfully and having control on personal decisions are all

elements of psychological resilience. This is in accordance with the study of Kellmann and Kallus (2001) that resilience had positive relationship with recovery in general, and more specifically with self-regulation and personal accomplishment, showing that resilient individuals make better and improved use of psychological skills abilities to prepare, stimulate, motivate and establish goals for themselves, having enjoyment with their sport, feeling integrated and unified with their teams. Similarly, García Secades et al. (2016) found that resilience correlates positively in athletes that their coping style focused on the present moment task, whereas there was negative association with those whose coping focused on emotions or distraction.

In addition, the model in this study reveals that the variation between groups across gender and sport-type is not significant. This shows that there is no significant difference between male and female personality; and likewise, there is no significant difference between individual and team sport in the role of resilience on stress and recovery. This is contrary to the findings of Codonhato et al. (2018) who found predictive association between models of general, gender and sport-type. The authors found significant difference between gender of male and female with male having higher resilience than their female counterparts; and sport-type (i.e., individual and team sports athletes). Blanco-García et al. (2021) reported higher level of resilience among males than female counterparts, and that the more experienced the athletes, the higher the level of resilience. Similarly, Onturk et al. (2020) and Küçük Kiliç (2020) found that perception and scores of resilience was higher among male than female participants, and team athletes reported higher level of resilience than individual athlete. This was a different case in the study of Reche-García et al. (2020). The authors indicated gender difference on level of resilience with women reported to have higher level of resilience than their men counterparts among team sports practitioners.

Limitations

The study had a number of limitations that should be considered. First, the sample size in this study was small and this could affect the generalizability of the data. The future studies should consider larger sample size and cover more regions in the country. Also, this study focused only on elite athletes from various sports that participated in the National Sports Festival 2021. The future studies should consider other levels of participation in sports, sport specificity and not just only elite athletes. The data collected in the study was based on the psychological aspects of stress and recovery. Further studies should consider the measurement of physiological parameters that compliment with the levels of stress and recovery and association with psychological resilience.

Conclusion

This study supports the significant role of resilience in coping with stress and recovery of elite athletes. Resilience seems to influence the athlete's stress and

recovery. Therefore, this can be considered a vital demanding characteristic that athletes should possess in order to be able to deal with and adapt to adversities experience in competitive sports and non-sport settings. Coaches, sport psychologists and other sports professionals should consider resilience as a great quality to be possessed by athletes and employ different psychological interventions that can help to develop and enhance athletes' resilience ability to cope with stress and recovery in order to achieve great success and well-being. Significant others can as well help elite athletes to develop resilience by providing adequate supports as they face numerous challenges as this could influence their coping with stress and recovery.

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