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PHYSICAL ACTIVITY

Athletic Identity: An Observational Assessment of Physical Activity Motivation and Potential Implications for Educators

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Abstract

Identifying as an athlete can shape how one perceives themselves and affects their motivation to be physically active. The purpose of this study was to examine the motivational relationship between athletic identity and physical activity motivation among college students. This study recruited 343 (65.6%, Female) undergraduate college students from a midsized midwestern university. A cross-sectional design was used to examine several types of variables related to athletic identity, motivation, and physical activity. Correlations and ANOVA analyses were used to assess associations and variable differences. While athletes reported significant relationships between all the constructs of athletic identity, non-athletes reported significantly higher athletic identity motivational constructs. Athlete identification can be used as an impacting factor of health behaviors directly influencing the prediction

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of future health behaviors. College campuses accommodate students through intramurals, but a larger exploration should be completed as more people reclaim the term "athlete." By incorporating elements of athletic identity within the health and/or a physical education curriculum, teachers could create an additional pathway to connect with students and potentially motivate them to adopt and maintain physically active lifestyles, all while mitigating the negative consequences associated with athletic identity loss.

Introduction

Today, athletes are traditionally referred to as individuals who participate in an organized team or individual sport competition, which is normally sanctioned by an overarching body to properly recognize achievement in the sport (Maron & Zipes, 2005; McKinney et al., 2019). Participating in physical activity (PA) through sport (athletics) has been found to be associated with physical and mental health status (Malm et al., 2019). However, losing the ability to adequately participate through these avenues (losing one's athletic identity) can have negative effects to physiological and psychological aspects of health commonly due to associated physical inactivity across younger and older age groups which can lead to the onset of chronic diseases as well as mental health issues (Ba et al., 2024; Booth et al., 2012; Edison et al., 2021; Giannone et al., 2017; Lamont-Mills & Christensen, 2006; Paffenbarger et al., 1994).

While it is relatively easy to participate and identify with the traditional definition of an athlete among adolescents, continuing to maintain this type of athletic identity becomes increasingly difficult as the number of athletes who can pursue higher levels of competition dramatically decrease post-secondary education. The loss of athletic identity may be a prevalent cause in explaining changes in behavioral motivation which result from physical inactivity during the college years of students (Caspersen et al., 2000; Kwan et al., 2012).

As many traditional athletes begin to transition away from athletic identity during their secondary education, physical and health educators could play an important role in teaching students how to properly make the transition from traditional athlete to recreational athlete. This proper transition may help to limit the observed adoption of physical inactivity, which results in decreased quality of life

via physiological and psychological pathologies. Furthermore, understanding athletic identity may allow health and physical educators to better relate to their students, and assist in educating athletes for lifelong health-enhancing habits. Continuously, understanding how athletic identity and PA motivation are associated may also lead to better behavioral interventions seeking to improve health related behaviors such as PA. To gain further insight, the present study sets out to explore the relationship between athletic identity and the related motivation to participate in PA of undergraduate students attending a university in both athlete and non-athlete populations.

A Physically Active Lifestyle

Participation in regular PA is reported to improve both physical and mental health (Centers for Disease Control and Prevention, 2023). Even though partaking in regular PA can result in health benefits, many individuals face challenges and fail to meet the minimum recommendations, which include aerobics 150 mins/week and resistance 2 days/week (Bull et al., 2020; Piercy et al., 2018). This epidemic of physical inactivity has been shown to be a concern as only 22.9% of adults meet minimum requirements for both aerobic and strength-based activity, with 32.4% only meeting either minimum aerobic (53.3%) or resistance-based activity levels (46.7%) (Blackwell & Clarke, 2018).

Physical inactivity and sedentary behavior have been demonstrated to have detrimental effects on several aspects of one's health, resulting in increased chances of over 35 chronic diseases and mortality rates (Booth et al., 2012; Carlson et al., 2018; Lavie et al., 2019; Minihan et al., 2022; Ussery et al., 2021). Physical activity is a complex behavior that drastically influences an individual's quality of life and has been defined as body actions produced by skeletal muscles that expend energy past normal physiological requirements needed at rest and is integrated in formalized and nontraditional activities (Caspersen et al., 1985). While this epidemic of inactivity continues to have impactful consequences on the population (Blair, 2009; Strain et al., 2024), gaps still exist in explaining potential influencing factors of adulthood PA. Identifying these factors could increase the likelihood of maintaining adequate PA levels and prove vital in improving overall physiological and psychological health.

Athletic Identity's Role in Physical Activity

The term *athlete* can be confusing and loaded with stereotypes; however, the term has become increasingly popular among adults attempting to rekindle or maintain their physical fitness. Previous findings have postulated that while motivation to participate in PA is fluid throughout different stages of adulthood, adults of all age categories tend to be more heavily enticed to maintain PA when participating in group activity than individual activity (Molanorouzi et al., 2015). This relationship between willingness to participate in PA and type of social setting hints at a possible dynamic of individuals drawing motivation from the perception of being a team with a common goal and function (Anderson-Hanley et al., 2011; Edwards et al., 2018; Rhea et al., 2003; Zajonc & Sales, 1966), similar to what is seen in the traditional athletic communities and events they once experienced in high school, physical education class, or club sport activities.

Identifying as an athlete can play an important role in how someone perceives themselves and can serve as an important factor in an individual's self-efficacy to be physically active (Helms & Morris, 2020; Mathisen et al., 2023; Shapiro & Martin, 2010). Unfortunately, as an individual ages it becomes exponentially more difficult to identify with the traditional definition of an "athlete." As previously discussed, traditional athletic identity becomes harder to maintain as few individuals are able to progress to more elite spaces. However, with age also brings extra complexities of life such as work and family obligations which can limit opportunities for those who passed their sporting careers to rekindle their athletic identity. Not only could loss of athletic identity result in physical inactivity, which as outlined above is a primary contributor to chronic disease, but once lost it may be exponentially more difficult to regain.

Past studies have shown significant positive correlations between athletic identity and rehabilitation over-adherence among injured athletes (Choudhury et al., 2024; Edison et al., 2021; Hilliard et al., 2017; McGinley et al., 2022; Ohji et al., 2021; Renton et al., 2021). This demonstrates the link between how an individual identifies their self and motivation to take actions aimed at reinforcing their self-perceived identity (Festinger, 1957; Stryker, 1968). Research on this self-identity reinforcing drive has been primarily conducted in

athlete populations; however, a community-based running intervention conducted by Bowness et al. (2021) found similar motivational patterns where residents from the studied population reported increasing their leisure-based PA in order to help reinforce their identity as a running athlete. More work is needed to understand these connections, but there is a clear potential for athletic identity to be harnessed as a tool for multiple populations.

The relationship between athletic identity and motivation is not a mentality reserved for elite competitors but is likely a self-perception speculated to be found across all humans (Bifulco & Tirino, 2018; Jung, 1959). While traditional athletic roles may improve one's expression of this archetypal behavior, everyone may have the ability to tap into this subconscious motivation through self-identity and behavioral modification. Limited research exists examining how adults identify themselves, as it pertains to identifying as an athlete, in relation to current identity motivation and PA need satisfaction. Filling this gap in research allows for a better understanding of how to engrain daily healthy behaviors in an individual's life and could lead to more effective intervention techniques. Furthermore, it is vital to help traditional athletes avoid this identity loss as well as help nontraditional athletes adopt a proper athletic identity to help encourage a physically active lifestyle and in turn prevent the onset of multiple chronic diseases. Bridging this gap could also equip health and physical educators with a deeper understanding of athletic identity's potential to motivate students and cultivate lifelong habits that promote health and well-being.

Theoretical Framework

The notion of motivation includes the direction and intention of engaging in certain behavior. Motivation is a psychological construct which gravitates an individual toward a desired goal and is considered a psychological force that can fortify action (Cook & Artino, 2016). Through this interplay of psychological phenomena this is a guiding force which reinforces intentions toward goals and behaviors: self-identity[Au2.1] (Hagger et al., 2007; Rise et al., 2010; Simons, 2021; Wierts et al., 2024).

Self-identity is comprised of a series of enduring "self-images" related to intrapersonal and interpersonal experiences (Berkman et al., 2017; Cheek & Briggs, 1982; Tajfel, 1978). Commonly, the social

roles that one takes in their community ultimately become the primary component of self-identity (Berkman et al., 2017; Oyserman & Destin, 2010; Tajfel, 1978). While some view self-identity as a minor contributor to behavior (Ajzen, 1985; Berzonsky, 2011), others believe it is a key aspect of one's implicit drive to pursue or avoid action (Conner & Abraham, 2001; Devos & Banaji, 2003). In fact, recent reviews have highlighted the importance of self-identity's role in maintaining physical activity behaviors (Caldwell et al., 2018; Kwasnicka et al., 2016; Rhodes et al., 2016; Rhodes & Sui, 2021).

The self-determination theory (SDT) brings these conversations a step further, describing how an individual's self-identity or self-concept is only truly expressed when their basic needs are met, i.e., autonomy, competence, and relatedness (Deci & Ryan, 2000, 2008; La Guardia, 2009; Reifsteck et al., 2016; Soenens & Vansteenkiste, 2011). The effects of satisfying these basic psychological needs are universal and environments nourishing these feelings promote well-being (Ryan & Deci, 2017; Sheldon et al., 2003). In other words, when these basic needs are met in relation to a behavior, an individual can operate in an intrinsically motivated fashion, while the inability to fulfill basic needs would be characterized by extrinsic motivation (Deci & Ryan, 1985).

Those who are driven intrinsically typically are more likely to maintain their behaviors compared to their extrinsically motivated counterparts (Farholm et al., 2017; Geller et al., 2018; Huéscar et al., 2019; Morris et al., 2022; Teixeira et al., 2012). This has been found to be true for whether athletes maintain their physical activity levels post sports participation or not (Almagro et al., 2020). In the case of the present study, viewing self-identity though the lens of SDT provides an interesting framework to how motivation in relation to PA may be observed between athletes and non-athletes.

In order to quantify these ideals of optimal self-identification among athletes and physical activity motivation, Anderson (2004) developed and validated the Athletic Identity Questionnaire (AIQ) which proposes four constructs of athletic identity motivation: appearance, importance, competence, and encouragement. Each of these constructs describes the interconnection between one's physical activity motivation and athletic identity. Furthermore, these constructs also seem to mirror the different dimensions of motivation

(intrinsic/extrinsic) proposed by SDT (Reifsteck et al., 2016). For instance, someone who draws their athletic identity and motivation to be physically active to improve physical looks (appearance) or due to another's wishes (encouragement) would be characterized by an extrinsic style of motivation while an individual who uses their identity to foster their belief of being able to excel at being active (competence) and values the behavior (importance) would be considered more intrinsically motivated. The ability to channel intrinsic motivation is clearly an important aspect of the adoption and adherence to PA behaviors (Morris et al., 2022), however, it is presently unclear how these concepts differ between traditional athlete and nonathlete populations. The present study seeks to explore this idea in terms of how the athletic identity mindset influences motivation to participate in physical activity.

Purpose

The purpose of the present study was to examine athletic identity and PA motivation among college students. This work serves to address the present gap in literature where, to our team's knowledge, no previous study has thus far sought to observe athletic identity among both athletic and nonathletic populations. The relationship between PA motivation and athletic identity could be a prevalent tool for physical and health education professionals to use in their practice and PA based interventions.

Materials and Methods

Participants

Freshman through senior students who attended a midsized Midwest university were solicited to participate in the study after the project was reviewed by the primary author's Institutional Review Board. A census email recruitment message was sent through an online learning platform (Canvas) to all students. Each student attending the university had access to this platform, thus all students received the emailed solicitation. The university undergraduate population census in 2022 was 4,764. A total of 343 students (male= 118, female= 225) completed the study yielding a 7.2% response rate (University of Nebraska-Kearney, 2024). The ethnicity of partici-

pants included Caucasian (87.2%), and Hispanic populations (5.2%) (See: Table 1).

Table 1
Gender and Ethnicity

		n	Percent
Gender			
	Male	118	34.4
	Female	225	65.6
Ethnicity			
	African American	3	0.9
	Asian	7	2
	White	299	87.2
	American Indian	1	0.3
	Spanish, Hispanic, Latino	18	5.2
	Two or more ethnicities	14	4.1
	Missing	1	0.3

Protocol and Measures

The email students received provided an overview of the research study, the definition of an athlete, and an invitation to participate. A weblink was embedded into the email which transferred the student to an online consent form that the student had to complete prior to gaining access to the survey hosted in Qualtrics. The survey included 25 questions including The Athlete Identification Questionnaire (AIQ) and a variety of sociodemographic questions. The survey was available for 2 weeks, with a follow-up reminder to invite students to participate.

Athletic Identity Questionnaire

The AIQ was developed and established a rating of how individuals identify themselves in relation to being an athlete (Anderson, 2004). The AIQ has been validated and found to be a reliable tool (Pierre-Luc et al., 2018). Additionally, the AIQ has helped past researchers further understand how athletic identity affects injury re-

covery (Podlog et al., 2013), student athlete mental health (Antoniak et al., 2022), academic identity (van Rens et al., 2019), and PA participation post-colligate athlete career (Reifsteck et al., 2014). This measure will help identify to what degree participants feel a level of athletic mindset as well as finding what aspects of athletic identity participants specifically identify via several constructs: appearance, importance, competence, encouragement. Finally, the average of these constructs will be presented as "total athletic identification."

Demographics

The demographic section of the survey consisted of questions asking the participants to denote gender, age, race, income status, educational background, employment status, and sporting history. Chiefly, the section included one item where respondents indicated whether they were presently a collegiate athlete at the university in a traditional context.

Data Analysis

At the completion of the 2-week time frame, data was transferred and stored electronically in an Excel file which could only be accessed by the investigators. Data was transformed, entered into SPSSv22, and analyzed for statistical purposes. Pearson correlations were used to assess the relationship between athletic identity constructs and both athletic status and gender. One-Way Analysis of Variance (ANOVAs) was used to assess group differences between athletic status and reported scores from the Athletic Identity Questionnaire. Statistical significance was established at $p < 0.05$.

Results

This study looked to examine the relationship between athletic identity (appearance, importance, competence, encouragement) based on PA motivation and participant demographics through an exploratory approach. When examining athletic status, those who identified themselves as athletes reported significant relationships between all of the constructs of athletic identity: Appearance ($r = 0.163$, $p = 0.002$), Importance ($r = 0.113$, $p = 0.037$), Competence ($r = 0.132$, $p = 0.014$), Encouragement ($r = 0.135$, $p = 0.012$), and Total Athletic Identification ($r = 0.135$, $p = 0.012$). However, no significant

correlations were found between athletic identity constructs and gender (See Table 2).

Table 2
Athletic Identity Constructs among Athletes and Gender

	Athletes			Gender		
Athletic Identity Constructs	***r***	***p***	***n***	***r***	***p***	***n***
Appearance	0.163**	0.002	343	-0.053	0.332	343
Importance	0.113*	0.037	343	-0.065	0.227	343
Competence	0.132*	0.014	343	-0.042	0.441	343
Encouragement	0.135*	0.012	343	0.009	0.867	343
Total	0.153**	0.004	343	-0.047	0.39	343

* Denotes significance at $p < 0.01$

* Denotes significance at $p < 0.05$

When exploring group differences, non-athletes scored significantly higher on 10 out of 21 questions on the Athletic Identity Questionnaire than those in a collegiate sport: Athletic Self-Image [Q1] ($F = 7.116$, $p = 0.008$), Athletic Self-Image [Q2] ($F = 16.849$, $p = 0.0001$), Athletic Self-Image [Q3] ($F = 10.744$, $p = 0.001$), Athletic Self-Image [Q5] ($F = 8.222$, $p = 0.004$), Athletic Self-Image [Q6] ($F = 18.113$, $p = 0.0001$), Athletic Self-Efficacy [Q14] ($F = 5.128$, $p = 0.024$), Athletic Self-Efficacy [Q16] ($F = 7.779$, $p = 0.006$), Athletic Self-Efficacy [Q17] ($F = 9.947$, $p = 0.002$), Perceived Outside Encouragement [Q19] ($F = 8.139$, $p = 0.005$), Perceived Outside Encouragement [Q20] ($F = 7.796$, $p = 0.006$) (See Table 3). When scores were allocated to their respective subset, non-athletes reported significantly higher in all athletic identity constructs when compared to athletes: Appearance ($F = 9.309$, $p = 0.002$), Importance ($F = 4.378$, $p = 0.037$), Competence ($F = 6.06$, $p = 0.014$), Encouragement ($F = 6.346$, $p = 0.012$), Total Athletic Identity ($F = 8.187$, $p = 0.004$) (See Table 4).

Table 3

Differences in Athletic Identity Items Based on Athlete Identification

Athletic Identity Questionnaire	Identification	*n*	*M*	*SD*	*F*	*p*
Q1	Athlete	297	5.6162	0.89715	7.116	0.008*
I think I look athletic, like a person who exercises	Non-Athlete	38	6.0263	0.85383		
	Total	335	5.6627	0.90057		
Q2	Athlete	296	5.7297	0.97142	16.849	0.0001**
I look like I never workout	Non-Athlete	38	6.3947	0.63839		
	Total	334	5.8054	0.96228		
Q3	Athlete	297	5.3973	0.8682	10.744	0.001**
My body looks in shape	Non-Athlete	37	5.8919	0.84274		
	Total	334	5.4521	0.87805		
Q4	Athlete	295	5.4339	0.90438	0.335	0.563
My body looks well proportioned	Non-Athlete	38	5.5263	1.08396		
	Total	333	5.4444	0.92525		
Q5	Athlete	295	5.4712	0.91753	8.222	0.004**
I look like a person who is physically fit	Non-Athlete	38	5.9211	0.85049		
	Total	333	5.5225	0.92012		
Q6	Athlete	297	5.7003	1.0564	18.113	0.0001**
It's obvious to others that I'm that I am flabby and out of shape	Non-Athlete	37	6.4595	0.691		
	Total	334	5.7844	1.04907		
Q7	Athlete	297	5.9259	0.96976	3.002	0.084
I schedule time to exercise	Non-Athlete	38	6.2105	0.81067		
	Total	335	5.9582	0.95625		
Q8	Athlete	296	5.6689	0.90114	3.194	0.075
I don't let other things get in the way of my exercise/sport activity	Non-Athlete	38	5.9474	0.92845		
	Total	334	5.7006	0.90719		
Q9	Athlete	295	5.5661	0.99396	2.657	0.104
I use several specific strategies to help me maintain regular exercise	Non-Athlete	38	5.8421	0.88612		
	Total	333	5.5976	0.98494		
Q10	Athlete	297	5.7845	0.99697	0.628	0.429
After illness or injury, I begin exercise as soon as possible	Non-Athlete	38	5.9211	1.02355		
	Total	335	5.8	0.9994		
Q11	Athlete	296	5.7601	1.02506	2.831	0.093
I would be very irritated if something prevented me from participating in a session of exercise, I had planned to do	Non-Athlete	38	6.0526	0.86828		
	Total	334	5.7934	1.01156		
Q12	Athlete	297	5.6768	0.97774	0.946	0.331
I plan specific alternate times, places, and/or types of exercise to use if I miss an exercise session	Non-Athlete	38	5.8421	1.05334		
	Total	335	5.6955	0.98635		
Q13	Athlete	297	5.8418	0.89587	0.464	0.496
I could participate in several types of physical activity if I wanted to	Non-Athlete	38	5.9474	0.92845		
	Total	335	5.8537	0.89882		
Q14	Athlete	296	5.8142	0.95807	5.128	0.024*
I simply don't have much athletic ability	Non-Athlete	38	6.1842	0.86541		
	Total	334	5.8563	0.95405		
Q15	Athlete	295	5.6373	0.90387	3.2	0.075
In most physical activities, I feel I can become skilled with sufficient effort and practice	Non-Athlete	37	5.9189	0.89376		
	Total	332	5.6687	0.90576		
Q16	Athlete	295	5.7831	0.94781	7.779	0.006**
I'm not very good at athletic activities	Non-Athlete	38	6.2368	0.91339		
	Total	333	5.8348	0.95362		
Q17	Athlete	295	5.5593	0.91605	9.947	0.002**
I'm confident of my athletic skills	Non-Athlete	38	6.0526	0.83658		
	Total	333	5.6156	0.91966		
Q18	Athlete	296	5.4764	0.99462	0.583	0.446
I received encouragement from other for exercise	Non-Athlete	38	5.6053	0.85549		
	Total	334	5.491	0.97948		

Table 3 (cont.)

Q19 My family/closest friends are enthusiastic about any effort/progress I make concerning exercise/sport	Athlete	296	5.6318	1.02983	8.139	0.005**
	Non-Athlete	38	6.1316	0.90557		
	Total	334	5.6886	1.02757		
Q20 My family/ roommates/ companions are very willing to accommodate my involvement in exercise/sport	Athlete	296	5.4595	1.02761	7.796	0.006**
	Non-Athlete	38	5.9474	0.89887		
	Total	334	5.515	1.02437		
Q21 I get a lot of reinforcement from other regarding my physical activity	Athlete	295	5.33559	1.029788	2.42	0.121
	Non-Athlete	38	5.60526	0.789782		
	Total	333	5.36637	1.007955		

* Denotes significance at p <0.01
* Denotes significance at p <0.05

Table 4

Differences in Athletic Identity Constructs on Athlete Identification

Athletic Identity Questionnaire	Identification	*n*	*M*	*SD*	*F*	*p*
Appearance	Athlete	305	32.3836	6.91968	9.309	0.002**
	Non-Athlete	38	35.8947	4.36069		
	Total	343	32.7726	6.7703		
Importance	Athlete	305	33.4066	6.9641	4.378	0.037*
	Non-Athlete	38	35.8158	3.79085		
	Total	343	33.6735	6.72593		
Competence	Athlete	305	27.7541	5.95282	6.06	0.014*
	Non-Athlete	38	30.1842	3.50949		
	Total	343	28.0233	5.78054		
Encouragement	Athlete	305	21.2393	4.92761	6.346	0.012*
	Non-Athlete	38	23.2895	2.59842		
	Total	343	21.4665	4.76751		
Total (Combined)	Athlete	305	114.7836	22.08921	8.187	0.004**
	Non-Athlete	38	125.1842	10.27949		
	Total	343	115.9359	21.35036		

* Denotes significance at p <0.01
* Denotes significance at p <0.05

Discussion

The present study found positive correlations between athletic status and all examined athletic identity constructs: appearance, importance, competence, encouragement, and total athletic identity. While the present study appears to be the first study to explore correlations between motivation and athletic identity in both traditional and nontraditional populations, previous studies have reported traditional athletic identity to be a significant correlate of a variety of motivational constructs (Love & Rufer, 2021; Schutte & McNeil, 2015; Tušak et al., 2005; Uğraş et al., 2024). This suggests a fundamental association between traditional athletic identity and present constructs.

No significant relationships were found between athletic identity constructs and gender, when examining both athletes and non-athletes combined: pointing to the case that gender roles may not dramatically influence behavior in terms of motivation to be physically active. Similar results were also found in a group of traditional athletes where gender did not seem to be a correlation of motivation (Tušak et al., 2005). While little other research has looked at these relationships, Kontro et al. (2022) found motivation to participate in sports is significantly related to multiple factors such as age, competitive background, current training regiment, and nationality.

While the present study did not explore how other sociodemographic aspects influenced participants' motivation, both present and past data found no notable relationship between motivation and gender. These results further suggest motivation among athletes to participate in competitive based exercise is multifaceted and can also be influenced by components outside of purely athletic identity. However, gender does not seem to be a determining factor. The findings of no gender differences may be notable as other past studies have observed multiple gender differences among samples of solely non-athletes' motivation to participate in PA, which include men being more motivated by intrinsic factors such as becoming more fit or for social achievement and women having weight management and other extrinsic factors as their primarily motivators (Egli et al., 2011; Kilpatrick et al., 2005).

When combined with the present data's findings of no gender differences among a sample of both athletes and non-athletes, past studies may suggest non-athletes experience PA motivation in a more fluid manner and may be influenced by more factors such as gender (Egli et al., 2011; Kilpatrick et al., 2005). While more work is needed to understand how individual characteristics contribute to the athletic identity-motivation relationship, physical and health educators may leverage this information as they begin personalizing their curriculum to their students. The ability to modify curriculum to individual groups of students may become increasingly prevalent as researchers begin to explore youth athlete's relationship with athletic identity (Choudhury et al., 2024; Edison et al., 2021; McGinley et al., 2022), which presently appears to be non-differential with other age groups. Continuously, it is recognized that using students' inter-

est/characteristics is important for their learning processes (Solari et al., 2022), however, in order to do this with greater precision, more research is needed into moderating variables of athletic identity. Ultimately, interventions which target constructs which are equally effective among multiple populations in theory would further the goal of decreasing physical inactivity and associated chronic disease.

The present study also found that those who identified as non-athletes reported significantly higher ratings of each of the athletic identity constructs and 10/21 athletic identity areas when compared to the traditional athlete participants. The concept of nonathletes possessing higher ratings in different components of athletic identity may be useful in demonstrating how the concept of athletic identity is much more than a superficial trait associated with sport participation. Past studies have demonstrated the general population, non-athletes, are commonly motivated to participate in PA based on fitness and health goals, social popularity, individual self-efficacy, and reducing a broad range of maladaptive psychological issues (Ahmed et al., 2020; Bragg et al., 2009; Gavin, 2014). However, the present literature is unclear on why athletes specifically participate in their chosen sport.

Bragaru et al. (2015) suggests one of the primary reasons a specific sport is chosen is enjoyment of the activity. This paints a rather clear contrast to why athletes and non-athletes are motivated to be physically active. Non-athletes normally must be self-accountable for planning and carrying out exercise, which may explain their higher reported motivation scores and multitude of supporting reasons why they are physically active. On the other hand, athletes have their practice and workout times predetermined and enforced by their coaches, which may reduce their actual need to have high levels of motivation. This disparity between how individuals are motivated toward athletic identity may be best tackled by physical and health education professionals as not only could lessons be personalized to their specific student population as previously stated, but educators could begin to help students develop skills related to autonomy in order to avoid a collapse of PA post athletic career. The development of autonomy has been shown to increase PA behaviors among youth and adults (Huéscar et al., 2019; Teixeira et al., 2012), therefore future interventions by health education professionals may help stu-

dents adopt longer lasting PA leading to reduced odds of contracting forms of chronic diseases.

In summary, the present study's results and discussion illustrate a relationship between athletic identity and both personal/social development. While these novel results begin the conversation about how athletic identity functions in both traditional and non-traditional populations, findings continue to build upon previous research, which has also found proper development of athletic identity to lead to emotional satiability, social confidence, interpersonal relationship satisfaction, conflict resolution, personal agency/autonomy, work ethic, self-efficacy, and many other crucial developmental abilities (Chang et al., 2018; Chun et al., 2023; Shapiro & Martin, 2010). As outlined by the 2024 National Physical and Health Education Standards, it is vital for physical/health education curriculum to nurture and grow students' intra/interpersonal skills (Society of Health and Physical Educators, 2024a, 2024b).

It is widely accepted that these skills, when properly developed, result in successful maturation of students, ultimately leading to satisfying adult lives (Opstoel et al., 2020). In turn, neglect of these crucial skills leads to maladaptive implications for those students who are underdeveloped (Hoffman, 1977; Rego & Cunha, 2009). Similarly, when properly developed, athletic identity can lead to satisfying and successful adulthood maturation (Miller & Buttell, 2018; Stellefson et al., 2019; Warehime et al., 2017), but can easily become harmful to the individual when underdeveloped (Edison et al., 2021; Giannone et al., 2017; Haslam et al., 2021; Simon et al., 2021). If added alongside other crucial personal and social developmental tools, physical and health educators may be able to better prepare their students for their next steps following post-secondary education, while also promoting long lasting health related behaviors through the addition of athletic identity (Helms & Morris, 2020). These concepts, final conclusions, as well as other implications for physical and health educators will be further explored in the translation to educational practice section.

Limitations and Suggestions for Future Research

Certain aspects of the present study should be placed into consideration when reflecting on the presented results. This study is reliant on self-reported data pertaining to the domains of physical activity,

and both self-perceived motivation and athletic identity constructs. The present study operated as a cross-sectional observational study, therefore results only illiterate momentary relationships between athletic identity and PA motivation.

Results may have also been influenced due to the inaccurate conceptualization of these concepts by the participants. Furthermore, this survey was distributed close to the student's Spring Break, which may have impacted the response rate due to students not checking their school email. Finally, not only did the population lack diversity, with the majority of the population identifying as Caucasian (as commonly observed in rural areas of the Midwest), but the sample also contained a relatively low number of non-athletes compared to students who do compete on behalf of the university.

Future studies should seek to gain a greater number of non-traditional athlete participation, while also attempting to gain a better understanding of intramural categorized activities for individuals who do not currently compete collegiately but still self-identify as an athlete. Not only would an increase in the non-athlete population within the study expand the understanding of this topic; but further research into how intramural activity affects athletic identity could enhance individual's PA levels late into life, where traditional athletic identity is uncommon.

Translation to Educational Practice and Conclusion

We believe there is clearly significant value in researching this area of psychological states and traits of importance to mental and physical health, to which health and physical education professionals can play a crucial role. Through primary and secondary schooling, students participate in health and physical education classes which strive to develop the students' psychomotor, cognitive, and affective domains. In these classroom settings, students learn about the need to continue maintaining regular and consistent PA, due to the myriads of health and wellness benefits. However, as previously stated, many individuals fail to reach the minimum standards, thus becoming suspectable to a higher risk of chronic disease onset.

Future health/physical education centered interventions teaching about athletic identity may benefit by employing multiple types/designs of interventions in a time where little diversity in the methodology of studies on athletic identity exists. In the present literature,

experimental assessments of athletic identity commonly involve pre/post measurements of athletic identity associated with pre/post measurements of psychiatric symptoms (i.e., depression/anxiety) in traditional collegiate athletic populations before and after their retirement from sport. The present study not only showcases the need for nontraditional/noncollegiate athletes to be involved in these studies (either in secondary educational or recreational domains), but it also illustrates how motivation for PA may be another important variable to track in relation with lifetime events. Furthermore, studies/interventions which seek to build upon the present conversation may also want to find which constructs of PA motivation helps best preserve athletic identity over extended durations.

Post-secondary education can be a dead end for many athletic dreams of high school stars, so as they make a transition, are they able to find fitness and wellness? This loss of athletic identity can be helpful in explaining changes in behavioral motivation that result from physical inactivity during the college years of students who were previously perceived as athletic (Helms & Morris, 2020). Health education professionals have been called to help athletes learn how to maintain a healthy relationship with their athletic identity (Haslam et al., 2021; Stellefson et al., 2019). Furthermore, as the area of research grows, recent studies have also shown athletic identity issues are prevalent at the childhood level (Choudhury et al., 2024; Edison et al., 2021; McGinley et al., 2022), with one recent longitudinal study reporting athletic identity at young ages to be a significant predictor of adulthood leisure time PA (Mathisen et al., 2023). This is in direct alignment with the new Society of Health and Physical Education Health Standards which strives to use functional health information to support health and well-being of self and others (Society of Health and Physical Educators, 2024a, 2024b). Health education professionals cultivate [Au8.1]students and provide information relating to proper/safe dietary lifestyles, social relationships, and exercise habits to avoid maladaptive relationships (Menor-Rodriguez et al., 2022; Orr et al., 2022; Zhong et al., 2022), and in line with these goals, health educators may find teaching about proper athletic identity to benefit students as unregulated athletic identities are related worsened levels of physical and mental health (Edison et al., 2021; Giannone et al., 2017; Haslam et al., 2021; Shander & Petrie, 2021; Simon et al., 2021).

A properly aligned relationship with athletic identity is not only important at the student level, but also at the community level (Bowness et al., 2021). As sports continue to become more elite and expensive, the cost to a community of losing opportunities to develop a positive athletic identity should be further investigated. What are ways in which we can encourage a better mindset toward exercise and wellness for individuals who are wrestling with forming and/or maintaining their athletic identity? Future research should seek to answer this question through exploration of intermural activities within educational and community settings.

Physical and health education professionals may also play an important role in this journey as their expertise can be used to help and encourage community members, while assisting in building an environment utilizing all domains of learning. Understanding how these limitations of traditional athletic roles may prove vital in the pursuit of increasing PA engagement through the development of an athletic mindset in the future. The present study may serve as a base line to how traditional athletic identity and its associated motivational factors relate to nontraditional populations. With this in mind, as shown by the present study as well as past literature, future interventions targeting the associated relationship between PA motivation and athletic identity should be implemented not only in traditional/nontraditional athletic populations and across multiple age groups, but also in areas outside the typical scope of school-based interventions, such as the community at large.

The implementation of interventions in a dual synchronous fashion could not only enhance the relationship between athletic identity and PA motivation among recipients at both levels, but could also be useful for students as they make the transition between the two areas of life, creating a sense of familiarity and enjoyment for previous athletes now in the community level. Interventions implemented in this manner could help reduce onset of chronic diseases for younger generations as well as manage the impact on quality of life of community members in older generations who may already have some form of chronic disease. In combing school and community levels where athletic identity intervention is needed, health and physical education professionals are in an extraordinarily unique position to server as a bridge between traditional student athlete spaces and

non-traditional community athletic spaces. This bridge could be important as it would allow current athletes to transition out of typical sports settings to community/recreational settings without losing their athletic identity and PA behaviors.

"The need for programming inclusive activities with minimal constraints is widely supported by academic scholars" (Crawford et al., 1991, p. 136). These authors proposed three discrete models of constraints; intrapersonal, interpersonal, and structural in their earlier works and then integrated them in a manner that could show sequential ordering and influences. A hierarchy of importance has been proposed to help understand how constraints influence leisure participation or non-participation. Most importantly, the authors contend the insurmountable obstacles and barriers which previous generations of scholars should consider their alternative view of constraints proposes that leisure participation is not dependent on an absence of constraints; instead, leisure participation is dependent on successful negotiation of constraints as one finds balance between constraints and motivation.

It is important for recreation providers to identify constraints, or reasons people do not choose to actively engage in recreational activities. For the most community benefits to occur, it is essential for the benefits to be distributed to the most possible people through inclusive practices. Recreational satisfaction can provide many benefits for all people when managed correctly (Kelly, 2012). "Despite the growing prosperity of many sports organizations, recreational and sports programs have come under attack from a variety of sources" (Jamieson & Orr, 2009, p. 48).

This study provides support for programmers who are advocating for more diverse options and activities to better meet the fragmented but important wellness activities that inherently motivate certain people and groups to participate because of their backgrounds and passion in those specific activities. Evaluation of future interventions must be rooted in the perceptions of the educator's target population. While empirical quantitative evidence is an important indicator in the evaluation of interventions, the present study and current literature underline the idea that the influence of athletic identity on PA motivation/participation is based on reinforcing the perceived identity of the individual. Therefore, while quantitative evidence

should be in alignment, the ultimate goal of future interventions, and conjunctionally the evaluation criteria of said interventions, should be to find ways to create healthy athletic identities. Further, it is vital that interventions link identities with the PA in a manner where they strive to reinforce in a fashion which is perceived by the recipients in order to achieve a self-determined mindset toward their health-related behavior. As previously laid out, the improvement of these mindsets could play a vital role in the adoption of PA as well as improving the quality of life through increasing immunity against chronic diseases among those in the target population.

The application of the programmatic suggestions will help mitigate the negative results of a lifestyle that is likely to lead to a lack of wellness and little or no adherence toward an exercise regimen. Finally, communities as well as sport administrators and health professionals/coaches at every level must be reminded that sport must be completed in a fun environment and be a way to introduce positive health behaviors. The lifelong influence on each of these aspects has cannot be taken lightly when viewed through the perspectives and ideas found within this study. Indeed, it is a good reminder that participating in sports can transform the lives of people, their outlook on PA, and their athletic identity. There is extraordinary potential within sport to develop character, compete to win, and still have fun.

Declaration Funding and Interest Statement

To the research team's knowledge, there are no conflicts of interest connected to this publication, and there has been no significant financial aid given which may have influenced its outcome.

Data Availability

The data which support the findings of this study are openly available in the Open Science Framework data repository at https://osf.io/pa5yu/files/osfstorage?view_only= . For any further inquiries, please reach out to the corresponding author of this paper, Derek Elton.

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