

An Exploratory Study on Athletic Identity of University Athletes in Selected Sports in Kenya

Elijah Gitonga RINTAUGU^{*1}, Muchiri KAREGA², Ishmael Kiprono KURUI³,
Francis Mundia MWANGI⁴

¹Department of Recreation and Sport Management, Kenyatta University, Nairobi, Kenya.

²Department of Psychology, Kenyatta University, Nairobi, Kenya.

³Directorate of Sport and Games, Kenyatta University, Nairobi, Kenya.

⁴Department of Physical Education, Exercise and Sport Science, Kenyatta University, Nairobi, Kenya

Research Article

Received: 25.12.2022

Accepted: 26.03.2023

DOI: 10.25307/jssr.1204389

Online Publishing: 30.06.2023

Abstract

Athletic identity is a precursor to numerous sport inclinations like participation, talent development and competition. This becomes more salient in educational institutions where student-athletes are required to play a dual role. The purpose of this study was to explore the athletic identity of university athletes in selected sports. It was postulated that athletic identity formation of the university athletes will vary based on selected variables of gender, age and year of study. Data was collected from athletes who were taking part in university sports championships using Athletic Identity Measurement Scale (AIMS). The sample comprised 183 (67.78%) males and 89 (32.22%) females. Most of the university athletes were in the 1st and 3rd years of study, and 60% of the players had two years of playing experience. The results revealed that the university athletes had high perceptions of self-identity, social identity and exclusivity and low perceptions on negative affectivity. It is concluded that athletic identity is mediated by situational factors such as age and gender. Consequently, sports psychologists and coaches need to assist athletes improve and sustain their athletic identities. Sport psychologists could train the athletes on how to enhance athletic identity and maximize their sports performance. Future research could address, athletic identity and sports performance as well as athletic identity and athletes in specific playing positions.

Keywords: Athletic identify, University athletes, Gender, Type of sports, Playing experience.

* **Corresponding Author:** Prof. Dr. Elijah Gitonga RINTAUGU, **E-mail:** rintaugu.elijah@ku.ac.ke

INTRODUCTION

Identity has been defined as the “meaning that one attributes to oneself in a role” (Burke & Reitzes, 1981). It is said to be formed and sustained through social processes and impacts on consistency of behavioral performance of a person with a given identity. Higher level of identification with a particular identity role can predict higher likelihood of engagement in behaviours that are consistent with that specific role (Callero, 1985). Athletic identity has also been defined as the extent to which a person identifies with athletic role (Brewer et al., 1993; Brewers et al., 1999). It can be conceptualized as the combination of cognitive and affective behavior as well as the psychosocial aspects that relate to a person identifying with the role of a sports practitioner (Brewer et al., 1993; Murphy, et al., 1996). As a self-concept, athletic identity can define as the way in which a person evaluates his or her worth and competence as an athlete (Richards & Aires, 1999).

Level of athletic identity of an athlete is a valuable measure for determining his or her involvement and sustainability in a sport. This identity is linked to increase in sport participation, health benefits, athletic performance, and development of social relationships, confidence and global self-esteem (Horton & Mark, 2000; Werther & Orlick, 1986). According to Rotella and Heyman (1993), people who are highly engaged in sports and get encouragement for their involvement may focus their self-identity onto the role of the athlete.

Athletic identity is conceptualized multi-dimensionally, namely: exclusivity, negative affectivity, self-identity and social identity. Exclusivity refers to the extent to which a person’s self-worth is experienced through undertaking an athletic role and identifies less with other roles such as student or friend. Negative affectivity is the extent to which a person experiences negative emotions from unpleasant sport outcomes such as injury or retirement. Self-identity is the level a person perceives him/herself as an athlete, while social identity refers to the level a person views him/herself as occupying the role of a sportsman (Brewer et al., 1993; Brewer et al., 1999).

Athletic identity is considered to be influenced by various factors including gender (Brewer et al., 1993; Cox & Whaley, 2004; Sarac & Toprak, 2017; Tasiemski et al., 2004; Van Raalte & Cook, 1991; Wiechman & Williams, 1997; Yanar et al., 2017), age (Anderson, 2004; Brewer & Cornelius, 2001; Houle et al., 2010; Karakas, 2017; Miller & Keller, 2003), playing experience, athletic season, team selection (first team or second) and type of sport (Tasiemski et al., 2004; Van Raalte & Cook, 1991).

In terms of gender, study findings have shown that higher involvement in sport is linked to stronger athletic identity, with men scoring higher than women (Brewer et al., 1993; Cox & Whaley, 2004; Tasiemski et al., 2004; Van Raalte & Cook, 1991; Wiechman & Williams, 1997). Schrack-Walters et al., (2009) observed that males generally become interested in sports because of its male dominated nature as well as the fact that they can excel in developing their bodies to compete aggressively with other males. In addition, they may derive gratification from the relationships they form with other males, as a peripheral benefit. However, previous

studies have shown that gender is not affected by athletic identity (Fraser et al., 2008; Groff & Zabriskie, 2006; Hoiness et al., 2008; Sarac & Toprak, 2017; Yanar et al., 2017) or racial groups (Miller & Kerr, 2003; Miller et al., 2005). For example, Proios et al., (2012) found that participants in physical activities had marginally high scores in all aspects of athletic identity. The authors found no significant gender differences in the three participants' concepts of their athletic role.

With regard to age, studies report that athletic roles increase up to junior high school years but decrease from freshmen to senior college years (Houle et al., 2010). Houle et al., (2010) studied the development of athletic identity 10 years, 15 years and adulthood age categories and found that it increased up to the age of 15 and then plateaued into young adulthood. Similarly, Miller and Kerr (2003) noted that the significance of athlete role declined as student athletes matured. Martin et al., (2014) followed changes in athletic identity of elite athletes over time and found that athletes who had an extended sports career reflected a high level of athletic identity, although it decreased as they approached retirement. On their part (Brewer & Cornelius, 2001), found that many athletes who persist in sports over time form a significant level of athletic identity. On the contrary, Brewer et al., (1993) reported a negative relationship between athletic identity and age among a sample of college student-athletes.

In terms of playing experience, it has been found that athletic identity can be affected by certain events such as successful and/or unsuccessful outcomes (Brewer et al., 1999), deceleration (Fish et al., 1999), injury (Brewer et al., 2010) and retirement from sport (Grove et al., 2004). Several studies report that athletes who had a less successful competitive season scored low in athletic identity when compared to those that had a successful competitive season (Brewers et al., 1999; Grove et al., 2004). Horton and Mack (2000) observed that there is a significant correlation between athletic identity and performance among long distance runners. Proios (2012) investigated perceived athlete role among gymnasts and reported that the participants exhibited high perception of their athlete role but significantly decreased with higher level of sport division. Mitchell et al., (2014) explored level of athletic identity among elite-level English professional youth footballers and found that playing level, living arrangements and years of apprenticeship affected the social identity and exclusivity levels of athletic identity differently depending on the football club. Lamount-Mills and Christensen (2006) noted significant differences in athletic identity between elite and recreational athletes in some team and individual sports. Similarly, Chen et al., (2010) found that participants placed their athletic role loyalty and moderately agreed with the proposed core benefits of athletic participation.

As regards negative affectivity, Green and Weinberg's (2001) findings indicate that athletic identity was significantly associated with depression following injury with participants higher rating in athletic identity responding more negatively to injury -whether real or imagined, than participants who rated lower. Stainfeldt and Stainfeldt (2012) found that participant's conformity to traditional masculine norms was affected by athletic identity and field position played in during the last year in school. Cox and Whaley (2004) assessed high school basketball players' expectancies for success, interest value, utility value and basketball identity and found that significant differences existed between American and white athletes on almost all variables

studied -with the exception of gender. Self and task beliefs were found to mediate the relationship between identity, effort and persistence. Identity was found to be a strong predictor of self and task belief, while expectancies showed significant influence on effort and persistence. Tusak et al., (2005) found significant correlation between personality and motivational characteristics on one hand and athletic identity on the other among athletes.

From the studies cited, it is evident that athletic identity is influenced by different demographic, personality, and sport related factors. Secondly, the reviewed studies were conducted in Western countries therefore the findings may be not tenable in Africa due to cross-cultural differences. This necessitated the current study whose findings have implications on parents, coaches and sport support personnel that are entrusted with supporting the university athlete. Additionally, the results of the study could be used to guide the athletes as they pursue multiple roles in sport participation and academia. Thus, the purpose of this study was to determine the athletic identity of university athletes and to establish whether the athletic identity was mediated by the selected demographic factors of age, gender, and year of study.

METHODS

Research Model

The study used a cross-sectional analytical study design targeting high school student-athletes who were representing their schools in external sport competitions in Kisumu County. A cross-analytical research design is a quantitative non-experimental study design that collects data from a defined population at a particular point in time (Gall et al., 1996) and therefore, the goal of this study was to determine the athletic identity of high school athletes involved in selected sport.

Sample

The study involved student-athletes who were taking part in university sport championship which comprised hockey, basketball, volleyball and handball and targeted 400 student-athletes who were representing their respective universities in the championship. Data was collected from 272 university student-athletes who volunteered to take part in the study. Of these, 89 (32.72 %) were female and 183 (67.27% male). The age categories of the participants were as follows: 30 (11.02 %) were aged between 16-18 years, 176 (64.70 %) were aged 19-21, 31 (11.39 %) were aged between 22 and 24 and 35 (12.86 %) were over 25 years old. With regard to year of study, 63 (23.16%) of the athletes were in year one, 46 (16.91%) in year four, 14 (5.14%) in year five while year two and year three had an equal number of 75 (27.57%) respectively. In terms of type of sport 95 (35.92%) played basketball, 75 (27.57%) were in volleyball, 73 played hockey (26.83%) and handball had 29 players (10.66%).

Data Collection Procedures and Ethical Considerations

Data was collected using questionnaires that were administered to the student-athletes in the playing fields/courts with the assistance of their coaches and team captains. Ethical approval

was obtained from Kenyatta University Ethics Review Committee (PKU/2511/11638). The directorate of sport and games was duly informed before the administration of the questionnaires. The student athletes were then informed about the objectives and significance of the study. They were invited to take part in the study after being informed that participation was voluntary and that participants remain free to withdraw from the study at any stage with no consequences. Informed consent was obtained from the university athletes according to established guidelines as outlined by Thomas et al., (2015).

Instruments

The questionnaire had two sections. Section A collected the athletes' bio data such as age, gender and year of study. Section B consisted of the Athletic Identity Measurement Scale (AIMS) (Brewer et al., 1993; Horton & Mack, 2000; Wieldman & William, 1997). The scale consists of 10 items focusing on the different levels of athletic identity as follows: Social identity (2 items), self-identity (3 items) negative affectivity (2 items) and exclusivity (3 items). The items are rated on a 7 point Likert type scale (from 1=strongly disagree to 7=strongly agree). A higher total score on the scale is interpreted as a more salient Athletic identity. Athletic Identity Measurement Scale is a valid, reliable and consistent measure of athletic identity and its multidimensional factorial structure has been reported in several studies (Anderson, 2004; Brewer et al., 1993; Horton & Mack, 2000; Wiechman & William, 1997). Brewer et al., (1993) reported that the internal consistency of AIMS ranged from $\alpha = .81$ to $\alpha = .93$ and this was considered adequate for the study.

Data Analysis

Data were organized, coded and analyzed with SPSS version 22. Results were reported in means and standard deviation, as well as inferential statistics. Independent t-test was used to determine the differences in athletic identity between males and females, while one way analysis of variance (ANOVA) was used to examine the differences between students across age categories and year of study on athletic identity at 95% confidence level. Any significant differences from ANOVA were subjected to Tukey HSD post hoc tests.

FINDINGS

The summary scores of means and standard deviations on athletic identity of the athletes are presented in Table 1.

Table 1. Composite means and standard deviations on athletic identity of the athletes (N=272)

Factor	\bar{x}	SD
Self-Identity	4.10	1.95
Negative Affectivity	4.01	1.90
Social Identity	3.71	1.73
Exclusivity	3.04	1.82

Results in Table 1 reveal that self-identity had the highest score ($\bar{x} = 4.10 \pm 1.95$) followed by negative affectivity ($\bar{x} = 4.01 \pm 1.90$), social identity ($\bar{x} = 3.71 \pm 1.73$) while exclusivity had the lowest mean of 3.04 ± 1.82 . The independent t-test results on gender and athletic identity of the athletes is presented in Table 2.

Table 2. Means, standard deviations and t-test results on gender and athletic identity of the athletes (n=272)

Factor	Gender	\bar{x}	SD	t	p
Self-Identity	Female	3.99	0.72	-1.99	0.04*
	Male	4.16	0.61		
Social-Identity	Female	3.59	1.02	-1.39	0.16
	Male	3.75	0.78		
Exclusivity	Female	2.69	0.93	-2.59	0.01*
	Male	3.17	1.57		
Negative	Female	3.85	0.99	-1.84	0.67
	Male	4.08	0.93		

*p<0.05

Results in Table 2 reveal that male athletes had higher scores/means on athletic identity than females in all the four factors. However, independent t-test revealed significant differences in the factors of self-identity ($t = -1.99$ $p < 0.04$) and exclusivity ($t = -2.59$ $p < 0.01$).

The summary of ANOVA on athletes' age and athletic identity is presented in Table 3.

Table 3. Summary of ANOVA on athletes' age and athletic identity of the athletes

Factor	F	SD
Self-Identity	1.38	0.23
Social Identity	0.69	0.59
Exclusivity	1.44	0.32
Negative Affectivity	2.62	0.03*

*p<0.05

It is evident from Table 3 that the factor of negative affectivity revealed that significant differences ($F = 2.62$ $p < 0.03$) based on the age of players. Post hoc Tukey HSD showed that athletes who were aged 16 to 18 years had the lowest means and differed from the other age groups. The year of study of the athletes did not return any significant differences on athletes' athletic identity.

DISCUSSION and CONCLUSION

The study sought to determine the athletic identity of university athletes taking part in basketball, volleyball, hockey and handball at a university championship tournament. These sports are considerably popular with student athletes consistently competing for opportunities to represent their universities in external competitions. This has a bearing on athletic identity as the athletes have to train extensively in order to get selected into the first team and finally be fielded in competitions. Curry and Weiss (1989) opined that athletic identity can be influenced by the values of a sport organization, sport identity and gender identity of the participant. This may be applicable in university settings where student-athletes occupy central positions of both academia and participation in competitive sport.

Results reveal that university athletes in this study have formed strong athletic identities. Indeed, athletes scored highly on self-identity, negative affectivity, social identity and exclusivity (Table 1). These findings corroborate those of other studies which have indicated that formation of athletic identity is salient for athletic performance (Miller et al., 2005; Miller, 2009) and participation in physical activities (Brewers et al., 1999). The findings are also similar to those of Proios et al., (2012) that indicated that physical education students moderately perceived their athletic role as underscoring the elements of social identity and exclusivity.

Athletic identity has been reported to vary based on gender, age, playing experience, athletic season, team selection and type of sport (Cox & Whaley, 2012; Padaki et al., 2018; Tasiemski et al., 2004; Van Raalte & Cook, 1991). In the current study, male athletes scored higher on the four factors of athletic identity than females (Table 2). This finding mirrors those of other studies that showed that males have stronger athletic identity (Cox & Whaley, 2012; Tasiemski et al., 2004; Van Raalte & Cook, 1991). This state of affairs could be attributed to several reasons. Firstly, Schrack-Waiters et al., (2009) observed that males reported stronger athletic identities because through gender socialization, sport is essentially a male dominated terrain. This point is further supported by Özkan and Lajunen (2005) who opined that the difference between males and females is attributed to gender roles which are more of a social nature, thus affect the perceptions and behaviour of people on a daily basis. Secondly, it can be postulated that males invest more in sport in terms of time and energy. Thirdly, males get more opportunities for sport competition than females. Our findings are contrary to those which reported no gender differences on athletic identity of university athletes (Groff & Zabriskie, 2006; Hoiness et al., 2008; Proios et al., 2012).

With regard to the age of athletes and their athletic identities, ANOVA did not reveal any significant differences on the four factors of athletic identity except that of negative affectivity. In this regard, the younger athletes had lower scores than the other age groups (Table 3). This is contrary to studies which have reported that athletic identity varies with age (Brewer et al., 1993; Houle et al., 2010; Martin et al., 2014; Yanar et al., 2017). Miller and Kerr (2003) reported that the importance of athletic role decreased over time as student-athletes matured. On the contrary, in the current study the results indicated that younger athletes scored highly on negative affectivity. This could be attributed to the fact that they are not well exposed and may have high expectations of their sport performance. It is also possible that they are still

developing athletic identities. Younger athletes also attract a lot of attention from peers, coaches and older players. These results find support in Reifsteck et al., (2013) in that athletic identity was a positive predictor of participation in physical activity and the influence was stronger among alumni who had engaged in college sports.

The lack of significant differences on the athletes' athletic identity and their year of study was unexpected. It was expected that athletes who were in their first two years of university education would have lower scores on their athletic identities than those in their final years of study. This is contrary to studies by Brewer et al., (1993), Brewer et al., (2010) and Grove et al., (2004) which have indicated that athletic identity decreases with experience or age (Karakas, 2017). These results also contradict those of studies (e.g. Grove et al., 2004) which maintain that the impact of situational factors on athletic identity such as year of study and type of sport participation. The results could be attributed to the fact that the athletes were not necessarily heterogeneous in their age categories. In addition, it is possible that athletes playing on university teams may have developed distinct team chemistry, interacted and bonded well without making references to their years of study.

Conclusions and Recommendations

Based on the findings of the study, it is concluded that the university athletes have formed very strong athletic identities with differences between the males and females score on self-identity and exclusivity. These variations were thought to be due to gendered socialization. It was also concluded that the age of athletes does not impact on athletic identity except for the factor of negative affectivity. The study findings imply the need for coaches and trainers working in the universities to provide conducive environments for athletes, especially females, to form stronger athletic identities. Coaches and sport administrators should also provide more support and focus to the younger athletes. The support can be in form of counseling, attention focusing and protection. Another implication is that there is need for sport administrators and sport psychologists to take stock of athletes' identity and their academic status with a view to helping the athletes balance the four factors of athletic identity (social identity, self-identity, negative affectivity and exclusivity). Our study was not exhaustive on issues relating to athletic identity. Further studies can unearth the athletic identity of athletes in different sports and different levels of sport competition. Furthermore, since ours was a cross-sectional study perhaps a longitudinal perspective would shed new insights into the question of athletic identity.

Conflicts of Interest: The authors declare that they have no conflict of interest in relation to this manuscript.

Authors' Contribution: Study Design-EGR; Data Collection-MK &IK, Statistical Analysis-FMM, Manuscript Preparation-EGR, MK & FMM. All authors read and approved the final manuscript.

Research Ethic Informations: Kenyatta University Ethics and Review Committee approved the study protocol.

Ethics Committee: Kenyatta University Ethics Review Committee

Date/Protocol number: 30th May 2022: PKU/2511/11638.

REFERENCES

- Anderson, C.B. (2004). Athletic identity and its relation to exercise behavior: Scale development and initial validation. *Journal of Sport and Exercise Psychology*, 26, 39-56. <https://doi.org/10.1123/jsep.26.1.39>
- Brewer, B.W., Van Raalte, J.L., & Linder, D.E. (1993). Athletic identity: Hercules Muscles or Achilles Heel? *International Journal of Sport Psychology*, 24(2), 237-254.
- Brewer, B.W., & Cornelius, A.E. (2001). Norms and factorial invariance of the athletic identity measurement scale. *Academic Athletic Journal*, 15, 103-113. <http://dx.doi.org/10.1080/1612197x.2012.705518>.
- Brewer, B.W., Selby, C.L., Linders, D.E., & Petitpas, A.J. (1999). Distancing oneself from and poor season: divestment of athletic identity. *Journal of Personal and Interpersonal Loss*, 4, 149-162.
- Brewer, B.N., Cornelius, A.E., Stephan, Y., & Van Raalte, J.L. (2010). Self-protection changes in athletic identity following anterior cruciate ligament reconstruction. *Psychology of Sport and Exercise*, 11, 1-5. <https://doi.org/10.1016/j.psychsport.2009.09.005>.
- Burke, P.T., & Reitzes, D. (1981). The link between identity and role performance. *Social Psychology Quarterly*, 44(2), 83-92.
- Callero, P.L. (1985). Role – identity salience. *Social Psychology Quarterly*, 48(3), 203- 215. <https://doi.org/10.2307/3033681>
- Curry, T.J., & Weiss, O. (1989). Sport identity and motivation for sport participation. A comparison between American College athletes and Australian student sport club members. *Sociology of Sport Journal*, 6(3), 257 -268.
- Chen, S., Snyder, S., & Magner, M. (2010). The effect of sports participation on student – athletes and non – athlete student’s social life and Identity. *Journal of Social Issues in Intercollegiate Athletic*, 3, 176-193.
- Cox, A.E., & Whaley, D.E. (2004). The influence of task value, expectancies for success, and identity of athletes’ achievement behaviors. *Journal of Applied Sports Psychology*, 16(2), 103–117. <https://doi.org/10.1080/10413200490437930>
- Fish, M.B., Grove, J.R. & Eklund, R.C. (1999). *Changes in athletic identity following state team selection trials*. Paper presented at the 10th world congress on sport sciences with the Annual Australian Conference of Science and Medicine in Sport, Sydney, Australia.
- Fraser, L., Fogarty, G. & Albion, M. (2008). Is there a basis for the notion of athletic identity? In N. Vidouris & V. Mowrinski (Eds). *Proceedings of the 2008 Conference of the Australian Psychological Society*. Hobart, Australia 23-27 September, 2008.
- Green, S.L., & Weinberg, R.S. (2001). Relationships among athletic identity, coping skills, social support and the psychological impact of injury in recreational participants. *Journal of Applied Sport Psychology*, 13(1), 40–59. <https://doi.org/10.1080/10413200109339003>
- Groff, D.G., & Zabriskie, R.B. (2006). An exploration study of athletic identity among elite alpine skiers with physical disabilities: Issues of measurement and design. *Journal of Sport Behaviour*, 29(2), 126-141.
- Grove, J.R., Fish, M., & Eklund, R.C. (2004). Changes in athletic identity following team selection: Self-protection versus self-enhancement. *Journal of Applied Sport Psychology*, 16(1), 75–81. <https://doi.org/10.1080/10413200490260062>
- Hoiness, A.R., Weathington, B.L., & Cotrell, A.L. (2008). Perceptions of female athletes based on observer characteristics. *Athletic Insight*, 10, 43-54.
- Houle, J.L.W., Brewer, B.W., & Kluck, A.S. (2010). Development trends in athletic identity: A two-part retrospective study. *Journal of Sport Behavior*, 33(2), 146-159.

- Horton, R.S., & Mack, D.E. (2000). Athletic identity in marathon runners. Functional focus or dysfunctional commitment? *Journal Sport Behavior*, 23(2),101-119.
- Karakas, T. (2017). *Investigation of the relationship between perceived optimal performance emotional state and constant use of self-confidence and perception of athletic identity in athletes*. Master Dissertation, Graduate School of Health Science, Mugla Sitki Koçman University, Mugla.
- Lamout-Mills, A., & Christensen, S.A. (2006). Athletic identity and its relationship to sport participation levels. *Journal of Science and Medicine in Sport*, 9, 472 -478.
- Martin, K.A., Forgorty, G.J., & Albion, M.J. (2014). Changes in Athletic identity and role satisfaction of elite athletes as a function of retirement status. *Journal of Applied Sports Psychology*, 26 (1), 96 -110.
- Miller, P.S., & Kerr, G.A. (2003). The role experimentation of intercollegiate student athletes. *Sport Psychologist*, 17(2), 196-220.
- Miller, K. (2009). Sport related identities and the “Toxic Jock”. *Journal of Sport Behavior*, 32, 69-91.
- Miller, K.E., Melnick, M.J., Barnes, G.M., Farrell, M.P., & Sabo, D. (2005). Untangling the links among athletic involvement, gender, race and adolescent academic outcomes. *Sociology of Sport Journal*, 22(2),178-193. <https://doi.org/10.1123/ssj.22.2.178>.
- Mitchell, T.O., Nesti, M., Richardson, D., Medley, A.W., Eubank, M., & Littlewoods, M. (2014). Exploring athletic identity in elite – level English Youth Football: a cross-sectional Approach. *Journal of Sports Sciences*, 32(13), 1294- 1299. <https://doi.org/10.1080/02640414.2014.898855>.
- Murphy, G.M., Petitpas, A.J., & Brewer, B.W. (1996). Identity foreclosure, athletic identity and career maturity in intercollegiate athletes. *The Sport Psychologist*, 10, 239- 246. <https://doi.org/10.1123/tsp.10.3.239>
- Özkan, T., & Lajunen, T. (2005). Masculinity, femininity and the Bem Sex role inventory in Turkey. *Sex Roles*, 52(1-2), 103-111. <https://doi.org/10.1007/s11199-005-1197-4>
- Padaki, A., Noticewala, M.S., Levina, W.N., Ahmad, C.S., Popkin, M.K., & Popkin, C.A. (2018). Prevalence of Post-Traumatic stress disorder symptoms among young athletes after anterior cruciate ligament rupture. *Orthopaedic Journal of Sport Medicine*, 6(7), 1-5. Article 2325967118787159. <https://doi.org/10.1177/235967118787159>.
- Proios, M.C. (2012). Athletic identity and achievement goals of Gymnastic athletes. *Science of Gymnastics Journal*, 4(3) 15-24.
- Proios, M., Proios, M.C., Mavrovouniotis, F., & Theofanis, S. (2012). An exploratory study of athletic identity in university PE students. *Graduate journal of Sports Exercise and Physical Education Research*, 1, 98-107.
- Reifsteck, E.J., Gill, D.L. & Brooks, D.L. (2013). The Relationship between Athletic Identity and Physical Activity among Former College Athletes. *Athletic Insight*, 5(3), 271-284.
- Richard, S.S., & Aires, E. (1999). The Division III student athletes. Academic performance, campus involvement and growth. *Journal of College Student Development*, 40(3), 211-218.
- Rotella, R.J., & Heyman, S.R. (1993). Stress, Injury and the Psychological Rehabilitation of Athletes. In J.M. Williams (Ed). *Applied Sport Psychology: Personal Growth to Peak Performance* (2nd Ed. pp. 338 – 355). May Field.
- Sarac, L., & Toprak, N. (2017). Examining the relationship between athletic identity and homophobia in a sample of sportsman university student athletes. *SPORMETRE, Journal of Physical Education and Sport Science*, 15(2),79-84. <https://doi.org/10.1501/sport-0000000311>.
- Schrack-Waiters, A., Donnell, K.A., & Wardlow, D.K. (2009). Deconstructing the myths of the monolithic male athlete: A qualitative study of men’s participation in athletics. *Sex Roles*, 60(1-2) 81-99. <https://doi.org/10.1007/s11199-008-9499-y>

- Stainfeldt, M., & Stainfeldt, J.A. (2012). Athletic identity and conformity to masculine norms among college football players. *Journal of Applied Sport Psychology*, 24(2) 115-128. <https://doi.org/10.1080/10413200.2011.603405>
- Tasiemski, T., Kennedy, P., Gardner, B.P., & Blaikley, R.A. (2004). Athletic identity and sports participation in people with spinal injury. *Adapted Physical Activity Quarterly*, 21, 364 -378. <https://doi.org/10.1123/apaq.21.4.364>
- Thomas, J.R., Nelson, J.K., & Silverman, S.J. (2015). *Research methods in physical activity* (6th Ed.). Human Kinetics.
- Tusak, M., Faganel, M., & Bednarik, J. (2005). Is Athletic identity an important motivation? *International Journal of Applied Sport Psychology*, 20, 473-480.
- Van Raalte, N.S., & Cook, R.G. (1991). Gender specific situational influences in athletic identity. *Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical activity, Monterey, Canada.*
- Wiechman, S.A., & William, J. (1997). Relation of athletic identity to injury and mood disturbance. *Journal of Sport Behaviour*, 20(2), 199 -211.
- Yanar, S., Kirandi, O., & Yusuf, C. (2017). Examining the differences between Tennis and badminton athletes perception of athletic identity and success motivation levels. *Journal of Sports Education*, 1(1), 51-58.



Except where otherwise noted, this paper is licensed under a **Creative Commons Attribution 4.0 International license**.