

Relationships between athletic identity and the two dimensions of sport commitment of Japanese student athletes

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Abstract:

Purpose: The purpose of this study was to examine the relationship between athletic identity and the two dimension of sport commitment: enthusiastic commitment and constrained commitment. **Approach:** The participants were 838 Japanese collegiate athletes (females: 123, males: 715). All participants currently play competitive sport at the varsity or intramural level; their mean age was 19.15 years (SD ± 1.10). **Results:** The results of this study indicated that athletic identity positively affected both enthusiastic commitment and constrained commitment, the former more strongly. **Conclusions:** This study finds the causal relationships between athletic identity and the two dimensions of sport commitment in Japanese collegiate athletes.

Key words: Japanese athletes, collegiate sports, sport persistence

Introduction

Historically, collegiate athletes have assumed the responsibility of developing Japanese sport culture and increasing Japan' international competitiveness in sport (Yoshimura & Ohashi, 2015). However, previous research mentions that the number of collegiate athletes is declining slightly in recent years (Hagiwara et al., 2018). Thus, it is important to conduct research on competitive sport participation and persistence among Japanese collegiate athletes.

Previous studies in the sport science field indicate that sport commitment is a psychological factor related to sports participation and persistence (Casper et al., 2007; Jeon & Ridinger, 2009; Hagiwara & Isogai, 2014). Sport commitment can be defined as a “psychological state representing the desire and resolve to continue participation in a particular athletic program, specific sport or sport in general” (Scanlan et al., 1993). Jeon and Ridinger (2009) demonstrated that athletes with higher sport commitment scores also had higher frequency of competitive sport participation; in addition, Hagiwara and Isogai (2014) found that Japanese athletes who had a higher sport commitment score demonstrated high frequency of training, intensity of practice, and time spent on a workout in Japanese athletes. Thus, sport commitment is an important factor for competitive sport participation and persistence.

Brickman (1987), in the field of social psychology, proposed that the commitment includes an obligatory as well as an independent component. That is, individuals may persist in effort to action both because they “want to” and because they “have to.” If individuals can be either or both independently and obligatorily committed to an activity, behavioral and psychological outcomes might reasonably be expected to differ across these commitment types. Studies have argued that sport commitment also has two types (Weiss & Weiss, 2003, 2006; Wilson et al., 2004), and a scale of commitment exists covering both “want to” and “have to” dimensions in an exercise situation (Wilson et al., 2004; Scanlan et al., 2016). Scanlan et al. (2016) referred to these two factors respectively in a sports context as enthusiastic (independent, “wanting to commit”) and constrained (obligatory, “having to commit”) aspects. In addition, Wilson et al. (2004) demonstrated significant causal relationships among enthusiastic commitment and exercise behavior in university students, but there is no significant relationships among constrained commitment. On the other hand, in Japan, Hagiwara (2017) also examined the relationships between the two types of sport commitment and actual sport participation behavior in collegiate athletes, and found that both enthusiastic and constrained commitment were positively associated with actual behavior, enthusiastic commitment more strongly. Therefore, not only psychological outcomes but also actual sport participation behavior are affected by the two types of sport commitment in collegiate athletes.

Especially, there might be a difference between general university students and collegiate athletes in psychological status related to the two types of sport commitment, and further study is needed to understand sport participation and persistency process in Japanese collegiate athletes.

Previous research has investigated sport commitment in order to better understand the mechanism of athletes' sport participation behavior (Scanlan et al., 2003; Weiss et al., 2001), and several studies have found that one of the significant psychological determinant of sport commitment is athletic identity (Carpenter et al., 1993; Chen et al., 2010; Hagiwara & Isogai, 2013a), defined as "the degree to which an individual identifies with the athletic role" (Brewer et al., 1993). Horton and Mack (2000) found that strong athletic identity increased commitment to athletic participation and persistence in the United States. In Japan, Hagiwara and Isogai (2014) demonstrated a significant causal relationship between athletic identity and sport commitment, in turn significantly linked to actual sport participation behavior in Japanese collegiate athletes. From the result of previous study, the role of athlete is related to the psychological state representing the desire and resolve to continue sport participation, however, no study has investigated the connection between the constrained commitment and athletic identity. The purpose of this study was to examine the relationships between athletic identity and two-type of sport commitment, and investigate the causal relationship between athletic identity and two-type sport commitment status.

Materials and Methods

Participants and survey procedure

The participants were 838 Japanese collegiate athletes (females: 123, males: 715), all of whom currently play competitive sport at the varsity or intramural level; their mean age was 19.15 years ($SD \pm 1.10$). Institutional review board approval was granted by the (Japanese) National Institute of Fitness and Sport, and the research team informed the participants of the purpose of the study and gave instructions for the survey prior to participation. Data and informed consent were obtained while the participants were attending sports science classes, in a classroom. Participation was completely voluntary.

Instrument

Athletic identity was measured using the Athletic Identity Measurement Scale for Japanese (Hagiwara & Isogai, 2013b), based on the original developed by Brewer et al. (1993). This scale is a self-report inventory measuring the importance that individuals place on the athlete's role. Participants demonstrated their agreement with statements such as "I consider myself an athlete," and "Sports is the most important part of my life." The scale consists of seven items to which individuals respond on a scale from one (strongly disagree) to seven (strongly agree). Values were summed to provide a total athletic identity score consisting of identification with the athlete's role.

Sport commitment was measured using the Japanese version of two-type sport commitment scale (Hagiwara, 2017), based on the original developed by Scanlan et al. (2016). The scale is a self-report inventory measuring the psychological desire and sense of obligation to continue playing sports, and contains 2 factors and 11 items. The scale begins with the phrase "The sport that I am currently playing and basing my responses on is..." Enthusiastic commitment is measured by six questions, such as "I am willing to overcome any obstacle to keep playing this sport," "I am dedicated to keep playing this sport," and "I am determined to keep playing this sport." Constrained commitment is measured by five questions, such as "I feel trapped in this sport," "Staying in this sport is more of a necessity than a desire," and "I feel I am forced to keep playing this sport." These items are rated on a scale of 1 (strongly disagree) to 5 (strongly agree); the items are summed to provide two total scores, representing the amount of each type of sport commitment.

Analysis

All scales used in this study have had reliability and validity confirmed by Cronbach's alpha and confirmatory factor analysis (CFA) respectively. The fit estimation for CFA utilized the goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), comparative fit index (CFI), and root-mean-square error of approximation (RMSEA). Structural equation modelling (SEM) was used to examine the relationships between athletic identity and the two types of sport commitment. The fit values considered adequate were GFI, AGFI, CFI >.90 and RMSEA <.08 (Oshio, 2008). All data were analyzed using IBM SPSS Statistics 22.0 and AMOS 22.0.

Results

The reliability and validity of the scales were confirmed. Cronbach's alpha for athletic identity was .93. For sport commitment, the alpha for enthusiastic commitment was .96 and that for constrained commitment was .85. In addition, the results of CFA fit estimation for athletic identity were GFI=.98, AGFI=.96, CFI=.99, RMSEA=.05, and for the two-type sport commitment scale was GFI=.97, AGFI=.94, CFI=.99, RMSEA=.05. As for SEM results on the relationships between athletic identity and sport commitment, the model fit was GFI=.97, AGFI=.95, CFI=.98, and RMSEA=.05, and all path coefficients were significant (Fig. 1). In addition, comparing

the respective path coefficients indicated that athletic identity affects enthusiastic commitment more strongly than constrained commitment ($p < .01$).

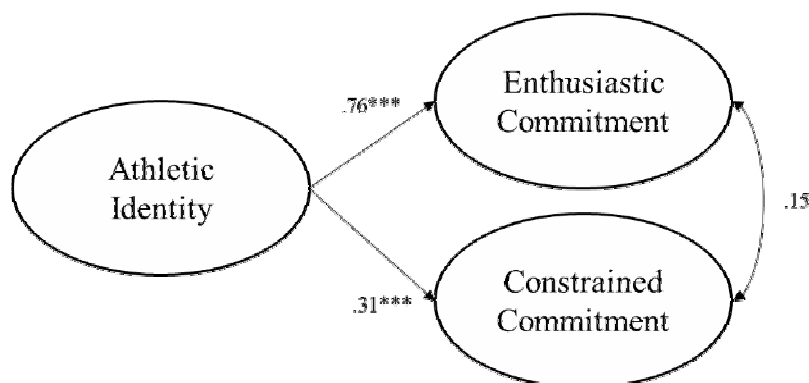


Fig. 1. Result of SEM

Discussion

All scales were determined to have good reliability and validity using Cronbach's alpha and CFA. The results demonstrated sufficient alphas ($>.70$; Cronbach, 1951) and goodness-of-fit ($>.90$ for GFI, AGFI, and CFI, with RMSEA $<.08$; Oshio, 2008). All scales were confirmed as having adequate reliability and validity, and thus may be used in future investigations.

The results showed that athletic identity positively affected both enthusiastic commitment and constrained commitment, the former more strongly. These results support previous studies that mention that athletic identity influences sport commitment, in Japanese and other contexts (Horton & Mack, 2000; Chen et al., 2010; Hagiwara & Isogai, 2014; Hagiwara et al., 2017). However, these previous studies showed a relation only between athletic identity and internal desire to continue sport, conceptualized here as enthusiastic commitment, and did not consider obligate psychological state to continue sport (constrained commitment).

Scanlan et al. (2016) indicated that constrained commitment should also be considered to further explain why athletes persist in sport: many athletes are not always internally motivated to continue athletic activities, but remain involved in them due to a sense of obligation. In addition, Curry and Parr (1988), Hagiwara and Isogai (2013a) indicated that human relations with coaches, parents or teammates in sport activity were effected to form role identity as an athlete, and it effects commitment to sport. While continuing athletic activity in collegiate athletes, the relationship with significant others such as coaches or friends are important, but sometimes its relationship may obligate their athletic activity. Therefore, the result of this study indicated that athletic identity also affects constrained commitment.

Finally, the results indicated that the degree to which an individual identifies with the athletic role (athletic identity) affects both enthusiastic and to a lesser degree constrained commitment to persisting in athletic activity. Wilson et al. (2002) suggested that endogenous motives are positively related to persistent sport behavior. On the other hand, Wilson et al. (2004) demonstrated that constrained commitment was not associated with actual exercise behavior. These findings suggest that stronger constrained commitment might be motivated to discontinuing sport participation behavior for collegiate athletes. Hence, further studies should focus on the athletic identity formation process in order to develop interventions strengthening the influence of enthusiastic commitment on sport persistence in Japanese collegiate athletes.

Conclusions

The purpose of this study was to examine the relationships between athletic identity and two types of sport commitment. Based on the results, we believe that athletic identity affects both types of sport commitment, enthusiastic commitment more than constrained commitment. Understanding the relationships among athletic identity and two-type sport commitment is important to clarify collegiate athletes' sport participation behavior.

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