

Examining the Relationships in Social Influence and Sports Adherence among Japanese Student Athletes

Goichi Hagiwara¹, Misaki Sumino¹, Hiroko Maeda¹, Shunichi Takeshita¹
& Hirohisa Isogai²

Abstract

The purpose of this study was to examine the relationship between perception of group cohesion and social support and sports adherence behavior. Participants were 604 (500 male, 104 female) Japanese athletes affiliated with the sports science faculty of three universities in southern Japan. Participants completed questionnaires measuring group cohesion, social support, and intentions regarding sports persistence. The results demonstrated relationships among group cohesion, social supports, and sports adherence behavior in a sports team. Both group cohesion and social support are significant social factors for developing sports adherence behavior. The present findings might be important for better understand Japanese student athletes. In conclusion, social influences (group cohesion and social support) might be important for sports adherence

Keywords: sports adherence, collegiate athletes, social influence, sports commitment

1. Introduction

Historically, the role of student athletes, especially collegiate athletes, is very important for developing and spreading sports culture in Japan (Yoshimura & Ohashi, 2015). However, in recent years, some studies have suggested that the number of Japanese student athletes is declining slightly (Yamazaki et al., 2013, Inoue et al., 2001). The population of collegiate athletes is also an important issue for maintaining international sports competitiveness.

¹National Institute of Fitness and Sports in Kanoya, 1, Shiromizu, Kanoya, Kagoshima, Japan (891-2393)

²Kyushu Institute of Technology, 2-4, Hibikino, Wakamatsu-ku, Kitakyushu, Fukuoka, Japan (808-0196)

Therefore, it is necessary to conduct research on collegiate athletes in Japan in advance of the 2020 Tokyo Olympics. In attempting to address this issue, several studies have indicated the effects of social factors on individual sports adherence behavior. Recently, two social factors have been identified as important for sports adherence (Fraser & Spink, 2002).

The first factor is group cohesion. Carron et al. (1988) demonstrated that group cohesiveness affects sports adherence behavior in an exercise group, and Spink and Carron (1992) showed that group cohesion is positively associated with sports adherence behavior in fitness classes. As noted above, these studies have demonstrated that people with higher sports adherence might have greater recognition of group cohesion (Spink & Carron, 1993, 1994; Spink, 1995). However, there is no research in the Japanese context, and thus, it is necessary to conduct research on the Japanese population to better understand the relationship between group cohesion and sports adherence behavior among collegiate athletes.

Second, social support has may predict sports participation and persistence (Alexandris et al., 2002; Hardy et al., 1991). Carpenter and Coleman (1998) and Felton and Parson (1994) demonstrated that social support from significant others, such as family members, friends, and colleagues serves as an emotional support for sports participants, encouraging their participation and intentions regarding persistence. Regarding research in Japan specifically, Suga et al. (2011) examined the relationship between social support and sports adherence behavior, and found that people with higher levels of sports participation have greater cognition of social support from significant others. Focusing on collegiate athletes, Hagiwara and Isogai (2013) demonstrated that athletes with higher levels of social support from significant others have a greater tendency towards sports participation and persistence. Thus, social support is also related to sports adherence.

In addition, a few studies have demonstrated that social support from significant others is associated with group cohesion (Carless & De Paola, 2000; Isogai & Hagiwara, 2014). Carless and De Paola (2000) found a significant positive relationship between social support and group cohesion in a work team. Participants reporting high amounts of social support from co-workers indicated higher group cohesion in the work team.

Additionally, Isogai and Hagiwara (2014) demonstrated that there is a relationship between social support and team cohesion in collegiate athletes. While group cohesion and social support have been identified in sports adherence behavior settings as important, they might also be valuable in understanding sports adherence issues among collegiate athletes in Japan.

Therefore, the purpose of this study was to examine the relationship between perception of group cohesion and social support and sports adherence behavior among individuals belonging to collegiate athletic clubs in Japan. Athlete sports adherence behavior was measured by sports commitment. Sports commitment is 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). Previous studies have indicated that sport commitment is related to sport participation and persistency behavior (Casper, Gray, & Stellino, 2007; Kanazaki, 1992, 2013). Jeon and Ridinger (2009) demonstrated that athletes who showed higher sports commitment indicated high frequency of competitive sport participation. In addition, Lukwu and Guzman (2011) indicated that competitive handball players who showed higher sport commitment demonstrated higher sport adherence behavior. Thus, sport commitment is essential to determining sports adherence behavior among collegiate athletes.

2. Method

2.1 Participants

Participants were 604 Japanese athletes affiliated with the sports science faculty of three universities in southern Japan (500 males, 104 females). Participants were mostly male, with a ratio of approximately 5:1. The average age of participants was 19.57 (± 1.25) years. With regard to years of experience in sports, the average was 10.09 (± 3.37). Regarding sporting event types, 179 participants were baseball players, 147 were soccer players, 122 were basketball players, 63 were volleyball players, 50 were handball players, 27 were rugby players, and 16 were lacrosse players (Table 1).

For the purposes of the present study, we defined sporting events as "competitive sporting activities conducted by members of university-based sport teams," and we only recruited persons currently participating in activities in university departments and sport clubs.

Table 1: Participant's Information

		n/M
【Gender】	Male	500
	Female	104
	Total	604
【Age】		19.57(± 1.25)
【Years of Experience in Sports】		10.09(± 3.37)
【Types of Sporting Events】	Baseball	179
	Soccer	147
	Basketball	122
	Volleyball	63
	Handball	50
	Rugby	27
	Lacrosse	16

2.2 Instrument

To measure group cohesion, this study adopted the Group Environment Questionnaire (GEQ) in Japanese (Isogai et al., 1988; Kawazu et al., 2012), which was originally developed by Carron et al. (1985). This questionnaire is based on a conceptual model that portrays cohesion as a multidimensional construct focusing on individual and group considerations, each of which contains task and social aspects. Four subscales capture these distinctions, ATG-Task (individual attractions to the group-task, e.g., "I am not happy with the amount of playing time I get"; reverse item), ATG-Social (individual attractions to the group-social, e.g., "For me, this team is one of the most important social groups to which I belong"), GI-Task (group integration-task, e.g., "Our team is united in trying to reach its goals for performance"), and GI-Social (group integration-social, e.g., "Our team would like to spend time together in the off-season"). The Japanese GEQ has 18 items scored on a 9-point scale ranging from 1 (strongly disagree) to 9 (strongly agree). In order to measure social support in the sports teams, the Social Support Scales for Sports Teams (Hagiwara & Isogai, 2014a) were adopted. This is a self-report inventory measuring perception of receiving social supports from teammates.

The items begin with the phrase, "We would like to ask you about the help and support you receive from your teammates when you play or decide to continue playing competitive sports. Your teammates..." followed by actions such as "give you advice to help solve your problems" and "cheer you up when you are feeling low." The scale consists of six items that individuals rate from 1 (strongly disagree) to 5 (strongly agree). Values are summed to provide a total score on social support received, which indicates the amount of support from teammates.

Sport adherence behavior was measured using the Sport Commitment Scale in Japanese (Hagiwara & Isogai, 2014b), which was originally developed by Scanlan et al. (1993). This scale is a self-report inventory measuring the psychological desire to continue sports participation. Six questions such as "How dedicated are you to playing sports?", "What would you be willing to do to keep playing sports?", and "How determined are you to keep playing sports?" Responses are rated on a 5-point Likert scale with options that vary depending on the question. Values are summed to provide a total sport commitment score for the psychological desire towards sport persistence.

2.3 Data Analysis

All scales used in this study were assessed for reliability and validity, as confirmed by Cronbach's alpha and confirmatory factor analysis (CFA), respectively. Goodness of fit for CFA was assessed using the goodness-of-fit index (GFI), adjusted GFI (AGFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA). In order to examine the relationships between perception of group cohesion and social support and sports commitment, Pearson's correlation coefficients were calculated. All data were analyzed by IBM SPSS Statistics 22.0 and AMOS 22.0.

2.4 Procedure

Institutional Review Board approval was granted from the corresponding author's research institute, and the research team informed participants of the study purpose and 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 in the survey was completely voluntary.

All scales were determined to have good reliability and validity by Cronbach's alpha and CFA. The results demonstrated sufficient values for Cronbach's alpha ($>.70$; 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.

This study was conducted to determine the correlations between perception of group cohesion and social support and sports commitment. The results indicated significant positive relationships between group cohesion and sports commitment, social support and sports commitment, and group cohesion and social support.

Carron et al. (1988) examined sports participants who attended summer recreational sports teams, and poorer attenders showed lower perceived levels of team cohesiveness as compared to participants who attended all games and practices. Additionally, Spink (1995) demonstrated that elite female athletes who indicated higher intention regarding sports persistence were most likely to perceive higher group cohesiveness. This study also found results similar to previous studies, suggesting there might be no difference in Japanese collegiate athletes in this regard. The results suggest that perception of group cohesion is positively related to intentions regarding sports persistence, and thus, individual attractions to a team and team integration might be important social factors to improve intention regarding sports persistence. In addition, Ajzen and Fishbein (1980) suggested that behavioral intentions were the most important predictors of actual behavior. Accordingly, perceptions of group cohesiveness might predict actual future sports adherence behavior.

Regarding the relationship between social support and sports commitment, similar findings have been found in other physical activity domains (Alexandris et al., 2002; Hardy et al., 1991; Felton & Parson, 1994) and competitive sports programs (Carpenter & Coleman, 1998; Scanlan et al., 2003; Hagiwara & Isogai, 2014). Scanlan et al. (2003) examined the national rugby team of New Zealand, and demonstrated that receiving social support from parents, coaches, and teammates predicted higher degree of sports commitment. The results of the present study indicated that social support such as advice; admiration, direction, and evaluation from teammates were positively related to intention regarding sports persistence. Therefore, social support from teammates might be an important predictor of sports adherence in collegiate athletes.

A few studies have demonstrated that social support from significant others is associated with group cohesion (Carless & De Paola, 2000; Isogai & Hagiwara, 2014). Isogai and Hagiwara (2014) found a relationship between social support and team cohesion in collegiate athletes, and indicated that athletes who receive higher amounts of social support from teammates perceived greater group cohesion in a team. The results of the present study supported those results from previous studies. These findings shed light on interesting conceptual issues about how to determine the group cohesion in a sports team. Widmeyer et al. (1985, p17) defined group cohesion as “a general orientation or motivation toward developing and maintaining social relationships within the group,” and thus, social support from teammates might be important for defining group cohesion.

The above findings suggest that group cohesion and social support both contribute to sports adherence behavior, and social support predicts group cohesion. The results of this study are essential to understanding the relationships between social influence and sports adherence; however, there are some limitations. The first is that this study was conducted in a small area of Japan. In order to better understand Japanese collegiate athletes, future studies should be conducted in broader areas of Japan. In addition, larger samples are needed in order to explain issues regarding collegiate athletes' sports adherence. Finally, this study did not address actual sports adherence behaviors. Further research is needed to develop a better understanding of social influences on sports adherence.

5. Conclusion

This study found relationships between group cohesion, social support, and sports adherence behavior in a sports team as well as a relation between social support and team cohesiveness. Both group cohesion and social support are significant social factors in developing sports adherence behavior, and social support from teammates is an important factor in developing sports team cohesiveness. These results enhance our understanding of Japanese student athletes. Towards maintaining the population of collegiate athletes in Japan, social influences (group cohesion and social support) might be important in sports adherence.

References

- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Engelwood Cliffs, NJ: Prentice Hall.
- Alexandris, K., Zahariadis, P., Tsorbatzoudis, C., & Grouios, G. (2002). Testing the sport commitment model in the content of exercise and fitness participation. *Journal of Sport Behavior, 25*(3), 217-230.
- Carless, S. A., & De Paola, C. (2000). The measurement of cohesion in work teams. *Small Group Research, 31*, 71-88.
- Carpenter, P.J., & Coleman, R. (1998). A longitudinal study of elite youth cricketers' commitment. *International Journal of Sport Psychology, 29*, 195-210.
- Carron, A.V., Widmeyer, W.N., & Brawley, L. (1988). Group cohesion and individual adherence to physical activity. *Journal of Sport & Exercise Psychology, 15*, 50-62.
- Carron, A.V., Widmeyer, W.N., & Brawley, L.R. (1985). The development of an instrument to assess cohesion in sport teams: The group environment questionnaire. *Journal of Sport Psychology, 7*, 244-266.
- Casper, J.M., Gray, D.P., & Stellino, M.B. (2007). A sport commitment model perspective on adult tennis player's participation frequency and purchase intention. *Sport Management Review, 10*, 253-278.
- Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16* (3), 297-334.
- Felton, G., & Parson, M. (1994). Factors influencing physical activity in average-weight and overweight young women. *Journal of Community Health Nursing, 11*, 109-119.
- Fraser, S.N., & Spink, K.S. (2002). Examining the role of social supports and group cohesion in exercise compliance. *Journal of Behavioral Medicine, 25*(3), 233-249.
- Hagiwara, G., & Isogai, H. (2013). Athletic identity and social supports in relation to formation of sports commitment. *Japan Journal of Sports Industry, 23*(2), 227-239.
- Hagiwara, G., & Isogai, H. (2014a). An attempt to develop providing and receiving social support scale for sports teams. *Journal of Japan Society of Sports Industry, 24* (1), 49-62.
- Hagiwara, G., & Isogai, H. (2014b). Examining the commitment for competitive sports- development of Japanese version of sports commitment scale-. *Japanese Journal of Sport Psychology, 41*(2), 131-142.
- Hardy, C.J., Richman, J.M., & Rosenfeld, L.B. (1991). The role of social support in the life stress/injury relationship. *The Sport Psychologist, 5*(2), 128-139.
- Inoue, K., Iriguchi, Y., Ohta, Y., & Yoshida, M. (2001). The current status and the future prospects of the collegiate athletic organizations- focus on the NCAA in the U.S.A.-. *Memoirs of Osaka Kyouiku University. IV, Education, Psychology, Special Education and Physical Culture, 50*(1): 193-210.

- Isogai, H., & Hagiwara, G. (2014). The relationship of cohesion and social support in collegiate athletes. *Presented at 7th Asian South Pacific Association of Sport Psychology International Congress, Tokyo.*
- Jeon, J.H. & Ridinger, L.L. (2009). An examination of sport commitment of windsurfers. *Journal of Sport Behavior, 32*(3), 325-338.
- Kawazu, K., Sugiyama, Y., & Nakazuga, T. (2012). Relationships among organizational citizenship behavior, team mental model, and team performance: A case of collegiate athletes engaged in ball sports. *Research Journal of Sports Performance, 4*, 117-134.
- Lukwu, R. M., & Guzmán, J. F. (2011). Sport commitment and adherence: A social-cognitive analysis. *Revista Internacional de Ciencias del Deporte, 25*(7), 277-286.
- Oshio, S. (2008) *First analysis of covariance structure: Pass analysis with Amos*. Tokyo: Tokyotosho, 110-111.
- Scanlan, T.K., Russell, D.G., Beals, K.P., & Scanlan, L.A. (2003). Project on elite athlete (PEAK): II. A direct test and expansion of the sport commitment model with elite amateur sportsmen. *Journal of Sport & Exercise Psychology, 25*(3), 377-401.
- Scanlan, T.K., Simons, J.P., Carpenter, P.J., Schmidt, G.W., & Keeler, B. (1993). The sport commitment model: measurement development for the youth-sport domain. *Journal of Sport & Exercise Psychology, 15*, 16-38.
- Spink, K.S. (1995). Cohesion and intention to participate of female sport team athletes. *Journal of Sport & Exercise Psychology, 17*, 416-427.
- Spink, K.S., & Carron, A.V. (1992). Group cohesion and adherence in exercise classes. *Journal of Sport & Exercise Psychology, 14*, 78-86.
- Spink, K.S., & Carron, A.V. (1993). The effects of team building on the adherence patterns of female exercise participants. *Journal of Sport & Exercise Psychology, 15*, 39-49.
- Spink, K.S., & Carron, A.V. (1994). Group cohesion effects in exercise classes. *Small Group Research, 25*, 26-42.
- Suga, K, Shoji, H., Oka, K., Nakamura, Y., & Mano, Y. (2011). Development of a social support scale for sports: examination of reliability and validity. *Japan Journal of Sports Industry, 21*(2), 169-177.
- Widmeyer, W.N., Brawley, L.R., & Carron, A.V. (1985). *The measurement of cohesion in sports teams: The group environment questionnaire*. London, Ontario: Sports Dynamics.
- Yamazaki, T., Maeda, H., Sumino, M., & Takeshita, S. (2013). A geographical study on the state of extracurricular sport activities in junior and senior high school. *Kyushu Journal of Physical Education and Sport, 28*(1), 33-44.
- Yoshimura, W., & Ohashi, M. (2015). A study of Japanese student athletes in the Olympic Games focusing on changes in the Olympic charter. *Bull. Tokyo Gakugei Univ. Division of Arts and Sports Sciences, 67*, 141-147.