

## Relationships among sports helplessness, depression, and social support in American college student-athletes

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### Abstract:

The purpose of this study was to examine the relationships between social support and mental health problems among male and female intercollegiate student-athletes. Participants were 204 American student-athletes (105 males, 99 females) recruited from the NCAA colleges and universities. Participants were 20.24 (SD = ±1.24) years old, and had a mean of 12.94 (SD = ±4.27) years of experience in sports. Results indicated that for female student-athletes, social support provided to and received from teammates were negatively correlated with both depression and sports helplessness, but for male student-athletes, no significant relationships were found. The results suggest that the relationship between teammate social support and mental health problems in intercollegiate student-athletes is gender-specific.

**Key words:** social support, intercollegiate, student-athletes, mental health.

### Introduction

In the United States, college student-athletes tend to receive a considerable amount of public attention (Etzel, Watson, Visek, & Maniar, 2006) and are often some of the most idolized individuals on campus (Parham, 1996). Such adulation from fans and others can create pressure which can increase student-athletes' vulnerability to mental health-related issues. Further, college is a transition period characterized by highly stressful events (e.g., leaving families for the first time), which makes it a prime period for psychological disorders to develop or worsen (NCAA, 2007). Thus, it is important to consider and address the mental health problems of college student-athletes.

Social support has gained attention from researchers as a beneficial resource for particular health-related issues (Uchino, 2006). Generally, social support is defined as “the help provided by individuals who comprise the social network of a person who occupies apposition of ego in this network” (Martinez-Hernaez, Carceller-Maicas, DiGiacomo, & Ariste, 2016; p. 2). According to Hisada (1987), the major findings from studies of social support show that “various forms of support provided by others should play the major role in maintaining or improving the person’s mental health” (p. 171). Drawing on these findings, sports scientists have begun focusing on the relationship between receipt of social support and mental health (Barefield & McCallister, 1997; Bianco, 2001; Malinauskas, 2008). This line of research has produced a number of important findings. For example, social support has been shown to reduce stress, anxiety, and helplessness related to engaging in, or continuing, competitive sports (Hardy, Richman, & Rosenfeld, 1991; Noblet, Rodwell, & McWilliams, 2003). Thus, social support from significant others might be beneficial for maintaining the mental health of intercollegiate student-athletes.

In recent years, social support has come to be viewed as an activity that takes place interactively within interpersonal relationships. More specifically, studies that have taken this view have examined interactions involved in social support. In particular, studies have focused on individuals who both receive and provide social support (Fukuoka, 1999; Isoya & Okabayshi, 2012; Lu & Argyle, 1992). Such studies have shown that providing social support to one’s significant other is beneficial for the provider’s mental health (Brown, Nesse, Vinokur, & Smith, 2003; Knoll, Kienle, Bauer, Pfuller, & Luszczynska, 2007). Such social support provider benefits may accrue to females in particular as females provide more social support to significant others than do males (Fukuoka, 1999). These findings may be specifically applicable to intercollegiate student-athletes as social support has been found to be a significant factor that reduces mental health problems related to continuing sports activities among females (Booth, Bauman, Owen, & Gore, 1997; Yang, Peek-Asa, Lowe, Heiden, & Foster, 2010).

The purpose of this study was to assess the relationships between social support and mental health problems in intercollegiate student-athletes. Based on previous research, we hypothesized that social support would particularly important for female intercollegiate student-athletes relative to male intercollegiate student-athletes.

## **Method**

### *Participants*

Participants were 204 American student-athletes (105 males, 99 females) recruited from NCAA institutions (Division I and III) located in the south-central and southwestern regions of the U.S. Participants were 20.24 years old ( $SD \pm 1.24$ ) and had experienced playing in sports for 12.94 years ( $SD = \pm 4.27$ ). Participants included: 37 track-and-field athletes, 34 baseball players, 34 American football players, 34 basketball players, 23 soccer players, 17 volleyball players, 15 swimmers, 10 handball players, 9 gymnasts, 6 rugby players, 5 tennis players, 4 squash players, 3 golfers, 3 badminton players, and 1 bowler.

### *Instruments*

To measure social support from teammates, the Receiving Social Support Scales for Sports Teams (Hagiwara, Bryant, Benavides Espinoza, & Isogai, 2016) was used. This questionnaire assesses individuals' perceptions of receiving social support from their teammates. The scale consists of six items, which are preceded by the sentence, "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..." Example items include "give you advice to help solve your problems" and "cheer you up when you are feeling low." These items are rated on a scale of 1 (*strongly disagree*) to 5 (*strongly agree*) and are summed to provide a total score representing the amount of received social support.

To measure participants' provision of social support to teammates, the Providing Social Support Scales for Sports Teams (Hagiwara et al., 2016) was used. This is a self-report inventory that measures provision of social support to teammates. This scale consists of six items that are preceded by the sentence, "We would like to ask you about the help and support you provide to your teammates when you play or decide to continue playing competitive sports. You..." Example items include "work with your teammates to solve their problems" and "respect your teammates as a team member and give an appraisal." Each item is rated on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The item scores are summed to provide a total score representing the amount of social support provided. For both social support scales, evidence of reliability and validity was obtained in previous studies (Hagiwara & Isogai, 2014; Hagiwara et al, 2016). The scales demonstrated sufficient values for Cronbach's alpha ( $>.70$ ) and the goodness of fit index ( $<.90$  for GFI, AGFI and CFI with RMSEA  $<.08$ ).

To measure the athletes' mental health issues, the depression and sports helplessness subscales of the Stress Response Scale for Athletes (Kemuriyama, 2013) were used. Each subscale begins with the following sentence: "To what extent have you experienced the following within the past two to three weeks?" The question is then followed by items such as "I feel depressed" or "I cannot find a meaning in the purpose of playing sports." Each item was rated on a five-point scale ranging from 1 (*completely disagree*) to 5 (*completely agree*). Support for the reliability and validity of the measurement were confirmed via Cronbach's alpha and confirmatory factor analysis (Kemuriyama, 2013).

### *Procedure*

Institutional review board approval was obtained from the corresponding author's research institute. Participants were informed of the instructions and purpose of this study during sports science classes. Interested student-athletes completed the questionnaire packet.

### *Data Analysis*

Descriptive statistics were calculated for each of the measures. In addition, t-tests were conducted to compare male and female intercollegiate student-athletes on each of the measures. Pearson's correlation coefficients were used to examine the relationships among receiving or providing social support with depression and sports helplessness. All data were analyzed using IBM SPSS Statistics 21.0.

## **Results**

### *Descriptive Statistics*

The descriptive statistics of the scores for social support, depression, and sports helplessness are shown in Table 1. Results revealed that there were no significant differences between males and female intercollegiate student-athletes in terms of social support, depression, and sports helplessness.

Table 1. Descriptive comparison of main variables by gender

Scale	Gender				<i>t-value</i>	
	Male (n=105)		Female (n=99)			
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>		
Receiving Social Support	24.31	4.36	25.20	4.21	1.48	n.s.
Providing Social Support	25.98	3.87	26.84	3.04	1.76	n.s.
Depression	5.36	2.54	5.59	2.09	0.69	n.s.
Sports Helplessness	4.61	2.32	4.94	2.19	1.05	n.s.

***Relationships between Receiving and Providing Social Support with Depression and Sports Helplessness***

Correlational analyses indicated, that for female intercollegiate student-athletes there were significant negative correlations between receiving social support and depression and sports helplessness and between providing social support and depression and sports helplessness. For male intercollegiate student-athletes, receiving and providing social support were not significantly correlated with depression and sports helplessness (see Table 2).

Table 2. Correlation coefficients between social support, depression, and sports helplessness

	Receiving Social Support		Providing Social Support	
	Males	Females	Males	Females
Depression	-0.06	-0.38**	-0.12	-0.29**
Sports Helplessness	-0.09	-0.35**	-0.07	-0.31**

**Discussion**

Although male and female intercollegiate student-athletes did not differ in terms of social support provided or received or in terms of the mental health variables measured, results revealed that for female intercollegiate student-athletes, both receiving and providing social support were negatively correlated with depression and sports helplessness. For male intercollegiate student-athletes, however, there were no statistically significant relationships between receiving and providing social support and mental health issues. These findings support our research hypothesis that female intercollegiate student-athletes gain mental health benefits from giving and receiving social support. A number of previous studies have shown that females benefit more from talking about their feelings with their friends than do males (Matuszek, Nelson, & Quick, 1995; Greenglass, 2002; Bellman, Forster, Still, & Cooper, 2003). Additionally, females tend to have closer social relationships, and require more social support to reduce stress and crisis than do males (Belle, 1987; Schraedley et al., 1999). Females also provide more social support to their friends and receive more help in return (Kessler, McLeod, & Wethington, 1985).

Focusing specifically on the literature in sports, Yang et al. (2010) showed that female college athletes tend to rely more on friends for social support when recovering from injuries than do male athletes. As previously mentioned, Hagiwara and Isogai (2013) found that Japanese female athletes showed a stronger relationship between social support from significant others (e.g., family or friends) and continuing competitive sports participation than did male athletes. Therefore, social support with teammates appears to be an important social interaction that may reduce mental health problems related to athletic activities for female intercollegiate student-athletes.

For male athletes, on the other hand, social support provided to or received from teammates was not related to mental health issues. This was supported by stating that social support did not reduce stress among males, but only females (Graham, Fischer, Fitzpatrick, & Bina, 2000). Also, it was reported that males tend to have inferior relational skills with others in their lives (Cohen, Sherrod, & Clarke, 1986), as well as that of males

who normally have fewer supportive relationships with significant others (Sarason, Sarason, & Shearin (1986). These examples might explain why depression and sports helplessness were not inversely related to social support for male student-athletes.

### Conclusion

The purpose of this study was to investigate the relationships between social support with teammates and mental health problems among male and female intercollegiate student-athletes. Our results indicate that social support with teammates—both receiving and providing—is a significant factor in reducing mental health problems among female intercollegiate student-athletes. Further studies should be conducted to clarify the specific factors associated with mental health remediation for male intercollegiate student-athletes.

### References

- Barefield, S., & McCallister, S. (1997). Social support in the athletic training room: Athletes' expectations of staff and student athletic trainers. *Journal of Athletic Training, 32*, 333-338.
- Belle D. (1987). Gender differences in the social moderators of stress. In R. C. Barnett, B. L. Biener, & G. K. Baruch (Eds.), *Gender and stress* (pp.257-277). NY: The Free Press.
- Bellman, S., Forster, N., Still, L., & Cooper, L. C. (2003). Gender differences in the use of social support as a moderator of occupational stress. *Stress and Health, 19*, 45-58.
- Bianco, T. (2001). Social support and recovery from sport injury: Elite skiers share their experiences. *Research Quarterly for Exercise Sport, 72*, 376-388.
- Booth, L. M., Bauman, A., Owen, N., & Gore, J. C. (1997). Physical activity preferences, preferred sources of assistance, and perceived barriers to increased activity among physical inactive Australians. *Preventive Medicine, 26*, 131-137.
- Brown, S. L., Nesse, R. M., Vinokur, A. D., & Smith, D. M. (2003). Providing social support may be more beneficial than receiving it: results from a prospective study of mortality. *Psychological Science, 14*, 320-327.
- Cohen, S., Sherrod, D. R., & Clarke, & M. S. (1986). Social skills and the stress-protective role of social support. *Journal of Personality and Social Psychology, 50*, 963-973.
- Etzel, E. F., Watson, J. C., Visek, A. J., & Maniar, S. D. (2006). Understanding and promoting college student-athlete health: Essential issues for student affairs professionals. *NASPA Journal, 43*, 518-546.
- Fukuoka, M. (1999). Reciprocity of receiving and giving support and emotional states in friendships: From the perspectives of perceived and enacted supports. *Annual Report of University of Shizuoka, Hamamatsu College, 13*, 57-70.
- Graham, C. W., Fischer, J. L., Fitzpatrick, J., & Bina, K. (2000). Parental status, social support, and marital adjustment. *Journal of Family Issues, 21*, 888-905.
- Greenglass, E. R. (2002). Work stress, coping, and social support: Implications for women's occupational well-being. In D. L. Nelson, & R. J. Burke (Ed.), *Gender, work stress, and health* (pp.85-96). Washington, DC: American Psychological Association.
- Hagiwara, G., & Isogai, H. (2013). Athletic identity and social supports in relation to formation of sports commitment. *Journal of Japan Society of Sports Industry, 23*, 227-239.
- Hagiwara, G., & Isogai, H. (2014). An attempt to develop providing and receiving social support scale for sports teams. *Journal of Japan Society of Sports Industry, 24*, 49-62.
- Hagiwara, G., Bryant, G. L., Benavides Espinoza, C., & Isogai, H. (2016). A cross-cultural comparison of the providing-receiving social supports in sports teams – Japanese and American student's athletes. *Journal of Sports Science, 4*, 210-218.
- 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*, 128-139.
- Hisada, M. (1987). A perspective of researches on social support. *The Japanese Journal of Nursing Research, 20*, 170-179.
- Isoya, T., & Okabayashi, H. (2012). Relationship between social support exchanges with friends and ego identities: Gender-based differences among university students. *Meisei University Annual Report on Psychological Research 30*, 7-16.
- Kemuriyama, C. (2013). Development of the Stress Response Scale for Athletes. *The Annals of Gifu Shotoku Gakuen University, 52*, 31-38.
- Kessler, R. C., McLeod, J. D., & Wethington, E. (1985). The costs of caring: A perspective on the relationship between sex and psychological distress. In I. G. Sarason & B. R. Sarason (Ed.), *Social Support: Theory, research and applications* (pp.491-506). Dordrecht, The Netherlands: Martinus Nijhoff.
- Knoll, N., Kienle, R., Bauer, K., Pfuller, B., & Luszczynska, A. (2007). Affect and enacted support in couples undergoing in-vitro fertilization: When providing is better than receiving. *Social Science & Medicine, 64*, 1789-1801.

- Lu, L., & Argyle, M. (1992). Receiving and giving support: Effects on relationships and well-being. *Counseling Psychology Quarterly*, 5, 123-133.
- Malinauskas, R. (2008). College athletes' perceptions of social support provided by their coach before injury and after it. *The Journal of Sports Medicine and Physical Fitness*, 48, 107-112.
- Martinez-Hernaez, A., Carceller-Maicas, N., DiGiacomo, M. S., & Ariste, S. (2016). Social support and gender differences in coping with depression among emerging adults: A mixed-methods study. *Child and Adolescent Psychiatry and Mental Health*, 10, 1-11.
- Matuszek, P. A. C., Nelson, D. L., & Quick, J. K. (1995). Gender differences in distress: Are we asking all the right questions? *Journal of Social Behavior & Personality*, 10, 99-120.
- National Collegiate Athletic Association. (2007). Managing student-athletes' mental health issues. Retrieved December 25, 2016, from [https://www.ncaa.org/sites/default/files/2007\\_managing\\_mental\\_health\\_0.pdf#search=%27managing+student+athletes+mental+health%27](https://www.ncaa.org/sites/default/files/2007_managing_mental_health_0.pdf#search=%27managing+student+athletes+mental+health%27)
- Noblet, A., Rodwell, J., & McWilliams, J. (2003). Predictors of the strain experienced by professional Australian footballers. *Journal of Applied Sport Psychology*, 15, 184-194.
- Parham, W. (1996). Diversity within intercollegiate athletics: Current profile and welcomed opportunities. In E. F. Etzel, A. P. Ferrante, & J. W. Pinkney (Eds.). *Counseling college student-athletes: Issues and interventions* (2nd ed., pp. 26-49). Morgantown, WV: Fitness Information Technology.
- Sarason, I. G., Sarason, B. R., & Shearin, E. N. (1986). Social support as an individual differences variable: Its stability, origins, and relational aspects. *Journal of Personality and Social Psychology*, 50, 845-855.
- Schraedley, P.K., Gotlib, I. H., & Hayward, C.J. (1999). Gender differences in correlates of depressive symptoms in adolescents. *The Journal of Adolescent Health*, 25, 98-108.
- Uchino, B. N. (2006). Social support and health: a review of physiological processes potentially underlying links to disease outcomes. *Journal of Behavioral Medicine*, 29, 377-387.
- Yang, J., Peek-Asa, C., Lowe, J., Heiden, E., & Foster, T. D. (2010). Social support patterns of collegiate athletes before and after injury. *Journal of Athletic Training*, 45, 372-379.