

Mediating effect of social support in relation between stress of golfers and exhaustion of exercise

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Abstract. A purpose of this study is to verify mediating effect of social support which is social psychological variable in relation between golf stress and exhaustion of exercise. In order to achieve above mentioned purpose, data were collected from golfers and verification of structural model was conducted by using scales of golf stress, exhaustion of exercise and social support. This study found that golf stress has an influence on exhaustion of exercise and social support is a variable that reduces exhaustion in relation between golf stress and exhaustion of exercise. In conclusion, stress that golfers experience and resulting exhaustion of exercise can be eased by various support behaviors of others.

Keywords: Social Support, Stress, Exhaustion of exercise

1 Introduction

People tend to participate in leisure activities actively to get out of meaningless everyday life that causes stress and recognition for leisure has changed. Such change in recognition of leisure has led to a rise in interest in sports and direct participation in sport activities. Many people participate in playing golf because golf is easy to learn and interesting and it is good to maintain good health.

Excessive stress that occurs in sports activities has a negative influence on cognitive, psychological and physiological process such as attention, consumption of energy and efficiency of exercise leading to exhaustion (Lazarus & Folkman, 1984). Exhaustion that people experience in golf activities out of various sports activities is likely to be caused by stress because it is difficult to improve golf skill in a short time and improvement of golf skill requires much time and effort which may cause golfer to feel depressed. Inferiority feeling and a lack of golf equipment may cause golfers to have a less interest in golf and especially rounding and practice requires may cause

physical exhaustion because it requires high level of physical strength(Yoo, 2005; Maslach, & Jackson, 1984).

Exhaustion is defined as a result of reaction to stress that is caused by exercise. Exhaustion may cause social and psychological abilities of participants of exercise to be reduced(Perlman & Hartman, 1982). Previous studies on exhaustion explained supports of superiors, colleagues and family members as a way to cope with work stress or exhaustion and investigated relations between stress and exhaustion taking social support as variable. However, there is a divergence of opinion about influence of social support on stress and exhaustion. There have been lots of studies which examined social support as a resource. A study reported that a lack of social support is strongly related to exhaustion and prevent or reduce exhaustion (Kim, 2011).

Stress causes exhaustion and exhaustion is a factor that obstructs participation in sports and health and social support is described as a resource that alleviates stress. Therefore, a purpose of this study is to investigate a role of social support in relation between stress and exhaustion of golfers.

2 Research methods

1) Research subject

Data of this study were collected from people who participate in golf practice and rounding regularly and reside in metropolitan area by using purposive sampling.

2) Measuring instrument

Scales which were used in this study include 『golfer stress scale』, 『exercise exhaustion scale』 and 『social support scale』 which were corrected and complemented in such a manner that they can reflect circumstances of golf club members properly.

3) Data analysis

Collected data except for data which contain dishonest responses were analyzed as follows by using SPSS 18.0 and AMOS 18.0 programs. First, Pearson's product-moment correlation analysis was conducted to find out correlations between sub-factors of variable established in this study. Second, Structural Equation Model was conducted to find out structural relation regarding established research model.

3 Result of study

1. Correlation between golf stress, exhaustion of exercise and social support
< Table 1> shows a result of conducting correlation analysis to find out relations between sub-factors of variable established in this study. As presented in < Table 1>, analysis showed that there is a significantly positive or negative relation between measuring variables. Correlation coefficient of each variable was fewer than .80 which is standard of multicollinearity which secured discriminant validity.

Table 1. Result of analysis of correlations between measuring variables

variables	1	2	3	4	5	6	7	8	9
discourtesy of partners	1								
financial burden	.207**	1							
performance of personal function	.292**	.252**	1						
information support	-.047	-.059	.031	1					
material support	.099	.070	.054	.569**	1				
emotional support	.132	.109	.149*	.583**	.450**	1			
exhaustion of body and mind	-.086	.181**	.041	-.270**	-.096	-.203**	1		
lack of achievement	-.113	-.080	.072	-.008	-.028	.023	-.201**	1	
loss of value	.019	.044	-.077	-.328**	-.093	-.253**	.491**	-.221**	1

* p<.05 **p<.01 ***p<.001

2. Mediating effect of social support in relation between golf stress and exhaustion of exercise

A purpose of this study is to investigate a meaning of social mediating effect in relations between golf stress and exhaustion of exercise. Mediating and moderating effects of social support were verified through three models. First, total effect model means relations between golf stress and exhaustion of exercise and if there appears no significant path in total effect model, mediating effect of social support cannot be verified. Second, complete mediation model is to verify relation of social support except for total effect model. Third and lastly, complete mediation model is to clearly confirm mediating effect of social support. <Figure 1> shows a result of verification of total effect model.

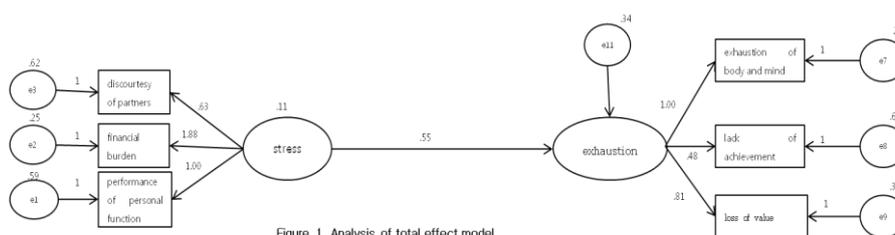
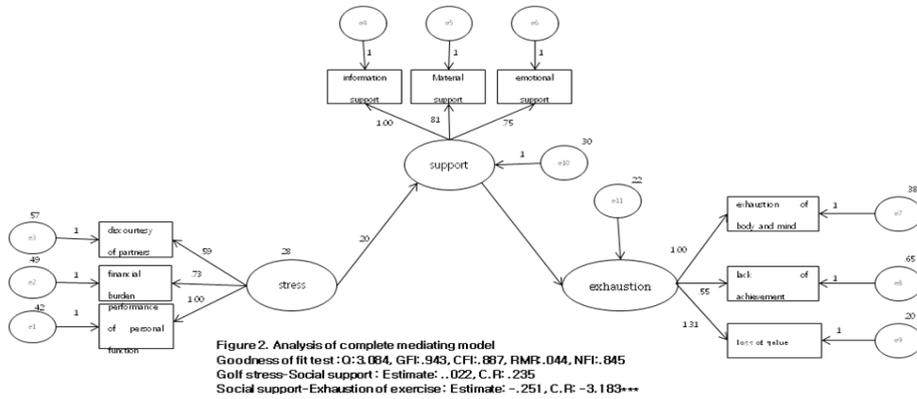
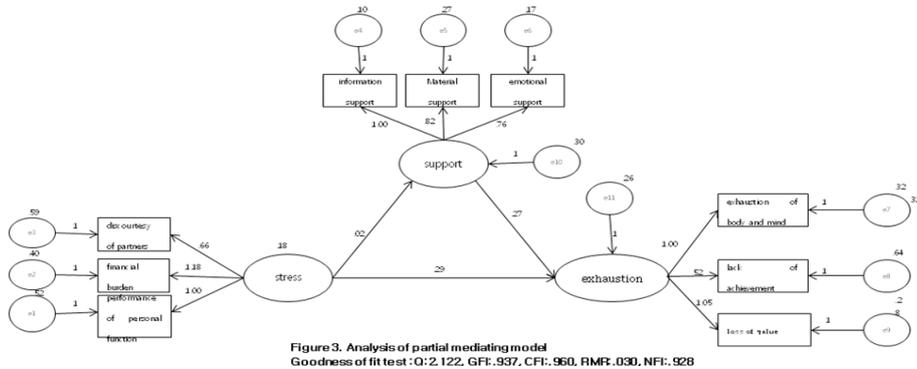


Figure 1. Analysis of total effect model
 Goodness of fit test :Q:3.778, GFI:.967, CFI:.873, RMR:.040, NFI:.881
 Stress-Exhaustion Estimate: .554, C.R: 2.925**

Analysis showed that total effect model is valid. In other words, golf stress and exercise exhaustion are significantly correlated and perception of stress that golfers experience while playing golf is closely related to exhaustion of exercise. Goodness of fit of total effect model was: Q: 3.778, GFI: .967, CFI: .873, RMR: .040, NFI: .881 which suggests that total effect model is mostly suitable. <Figure 2> shows a result of conducting analysis of complete mediation model to find out first mediating effect of social support.



Analysis showed that in complete mediation model, social support has negative relation with exhaustion of exercise. In other words, social support affects a reduction of exhaustion of exercise. It was found that golf stress does not have significant relation with social support which suggests that social support influences exhaustion independently without being associated with stress. Goodness of fit of complete mediation effect model was: Q:3.084, GFI:.943, CFI:.887, RMR:.044, NFI:.845 which suggests that complete mediation effect model is mostly suitable. <Figure 3> shows a result of conducting analysis of partial mediation model to find out first mediating effect of social support.



Analysis showed that in partial mediation model, social support has mediating effect in relations between stress and exhaustion. Goodness of fit of partial mediation effect model was: Q:2.122, GFI:.937, CFI:.960, RMR:.030, NFI:.928. <Table 2> shows a result of path coefficient analysis of each variable.

Table 2. path coefficient analysis of research model							
critierion variable	path	predictor	Estimate	S.E.	C.R.	P	approval/disapproval
support	<-----	stress	.022	.117	.189	.850	invalid
exhaustion	<-----	stress	.290	.139	2.093	.036	valid

exhaustion	<-----	support	-.273	.084	□3.254	.001	valid
performance of personal function	<-----	stress	1.000	restriction of regression coefficient			
financial burden	<-----	stress	1.177	.387	3.042	.002	valid
discourtesy of partners	<-----	stress	.664	.200	3.320	***	valid
information support	<-----	support	1.000	restriction of regression coefficient			
material support	<-----	support	.824	.088	9.407	***	valid
emotional support	<-----	support	.762	.077	9.833	***	valid
exhaustion of body and mind	<-----	exhaustion	1.000	restriction of regression coefficient			
lack of achievement	<-----	exhaustion	.522	.121	4.312	***	valid
loss of value	<-----	exhaustion	1.050	.204	5.144	***	valid

As shown in <Table 2>, relation between golf stress and social support was rejected but mediating effect of social support in relation between golf stress and exhaustion of exercise was statistically significant. In other words, social support can effectively reduce exhaustion of exercise which is caused by stress that golfers experience while playing golf. It was found that mediating effect of social support which was established in this study was significant because path that can cause individual reduction of exhaustion of exercise was confirmed. It was found that path of subfactors which each latent variable contains was also significant. Mediating effect of social support was verified through partial mediation model. It was found that stress and resulting exercise exhaustion which golfers experience while playing golf can be alleviated by various support behaviors of others.

4 Discussion and conclusion

This study was conducted to verify mediating effect of social support which is positive social psychological variable in relation between golf stress and exercise exhaustion. Structural equation analysis showed that social support has an mediating effect that reduces exhaustion of exercise. Findings of this study support a result of a study conducted by Kim(2011) and Yeom (2012) that investigated effect of social support in golf circumstances. It was reported that social support influenced participation motivation of golfers and continuation of intention and social and psychological characteristics of participants. A study conducted by Park and Kang(2012) suggested that social support can act as important factor in golfers continuing to play golf considering the fact that golf requires expensive equipment and is difficult to play with many people, which supports the findings of this study. A study conducted by Song(2012) suggested that positive influence of support that an individual perceives changes various factors which are related to environment which an individual perceives and adaptation to environment positive and such perception influences social adaptation and psychological satisfaction which supports the findings of this study.

Effect of social support found in this study is an important factor that can reduce various stress and exhaustion which may cause golfers to discontinue playing golf. Social support can serve as important link which can be utilized in a useful manner even in a negative aspect such as stress or exhaustion. Support of family members or colleagues for playing golf will have a very positive influence on golfers and help golfers improve an ability to cope with stress caused by golf resulting in prevention of exhaustion. In conclusion, gold stress influences exhaustion of exercise and social support is very important variable which can reduce exhaustion.

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