The Effect of Autonomy-Supportive Behaviors of Coaches on Need Satisfaction and Sport Commitment of Elite Female Players in Handball Premier League

Sedigheh Hosseinpoor Delavar  
Member, Islamic Azad University, Kermanshah Branch, Iran

Shirin Zardoshtian  
(PhD) Assistant Professor, Faculty of Physical Education, Razi University of Kermanshah, Iran

Behesht Ahmady  
MA in sport management, Iran

Azadeh Azadi  
MA in Behavior Learning, Iran

Abstract

This study determined the effects of autonomy-supportive behaviors on satisfying the psychological needs and commitment of female handball players in premier league in Iran. Here, we used descriptive research (survey) method. The statistical population of 237 players was selected as our samples. We administered three questionnaires for autonomy-Supportive behaviors, psychological needs and commitment including perceived autonomy-supportive behaviors of coaches in sport (PASSES), satisfaction of the psychological needs in sports and sports Commitment Scale (SCMS) questionnaires. We applied multiple regression analysis and structural equation modeling (SEM) to analyze the data. Results showed there was a positive correlation between autonomy-supportive behaviors with the psychological needs of competence and commitment of athletes. On the other hand, the players `commitment correlated positively with psychological needs. Results of multivariate regression showed that the autonomy-supportive behaviors were predictor of psychological needs and commitment of players. The path analysis, also, established mediator role of psychological needs between autonomy-supportive behavior of the coach and players` commitment. Thus, the self-determination Theory among the elite players and sports teams was confirmed.

Key words: Self-Determination Theory, Autonomy-Supportive, Sport Commitment, coaching behavior, need satisfaction
Introduction

Self-determination theory is a theoretical framework that can induce a wide knowledge on various aspects of sports social environment (Deci & Ryan, 1985).

Satisfying the psychological needs of the communities require regulation, feedback, rewards, or the relationship between the individuals (Deci & Ryan, 2000). In recent years, two interpersonal styles –control and autonomy-supportive - has attracted the most attention (Alvarez et al, 2009). The autonomy-supportive style is defined as a position of authority in which one, who minimizes the pressure and command, uses the ideas of others, takes their feelings into consideration and provide information and opportunities for them to choose (Mageau & Vallerand, 2003).

Studies in sport have established the relationship between autonomy-supportive behaviors and needs satisfaction. Almagro et al (2010) found a positive relationship between coach's autonomy-supportive behaviors with players' autonomy need satisfaction.

Studies show few research considered sport commitment as one of the behavioral outcomes of self-determination. Also, few studies have been conducted in Asian countries (Lim and Wang, 2009). On the other hand, given different cultural values in Iran, no research on the theory of self-determination has been made in the sport setting. Therefore, this study effects of autonomy-supportive behaviors to satisfy the psychological needs and commitment of female handball players in premier league in Iran.

Methodology

This is descriptive (survey) study. Our statistical population included 237 women with mean age of 34 ± 82.19. This study conducted as census and the sample was equal to the total study population. We took 3 questionnaires into account as follows:

1 - Perceived autonomy-supportive behaviors of coaches in sports: This questionnaire developed by Hagger et al (2007) consisting of 12 questions.

2 - The assessment of psychological needs questionnaire encompassed the following: The need for autonomy in the exercise with six items (Deci et al, 2001) The need for competence with 5 items (McAuley et al, 1989) and the need to relatedness with 5 items (Richer and Vallerand, 1998). The Questions were modified and updated to handball sport. Cronbach's alpha for the competence, communication and autonomy needs were 0.69, 0.76, 0.79 respectively.

3 - Sport commitment Scale: This questionnaire developed by Askanlan et al (1993) and has 14 items.

We analyzed the data using SPSS16 and LISREL. The mean and standard deviation for age, history of the game were determined. To evaluate the correlation between variables and for
predicting the predictive variables on the mediator and the criterion variable, we used the Pearson correlation multivariate regression analysis, respectively, and structural equations used for modeling and finally a model were presented.

**Results**

Table 1: Regression coefficients associated with the prediction of "commitment to sport and satisfying psychological needs" based on "coaches' Autonomy-Supportive behaviors"

<table>
<thead>
<tr>
<th>Predictive variable</th>
<th>The criterion variable</th>
<th>B</th>
<th>β</th>
<th>t</th>
<th>sig</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy-Supportive</td>
<td>competence</td>
<td>0.049</td>
<td>0.216</td>
<td>3.385</td>
<td>0.001</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>relatedness</td>
<td>0.069</td>
<td>0.158</td>
<td>2.401</td>
<td>0.000</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td>autonomy</td>
<td>0.263</td>
<td>0.598</td>
<td>11.220</td>
<td>0.017</td>
<td>0.99</td>
</tr>
<tr>
<td></td>
<td>Commitment</td>
<td>0.250</td>
<td>0.255</td>
<td>4.037</td>
<td>0.000</td>
<td>1</td>
</tr>
</tbody>
</table>

Also, the regression results in Table 2 show a positive linear relationship between the need for competence, integrity and autonomy with sport commitment and all 3 psychological needs could predict the sport commitment of players in the α=0.01.

Table 2 - Regression coefficients associated with the prediction of "commitment to sport," according to "satisfying psychological needs."

<table>
<thead>
<tr>
<th>Predictive variable</th>
<th>The criterion variable</th>
<th>B</th>
<th>β</th>
<th>t</th>
<th>sig</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Commitment</td>
<td>1.157</td>
<td>0.269</td>
<td>4.274</td>
<td>0.000</td>
<td>1</td>
</tr>
<tr>
<td>relatedness</td>
<td>Commitment</td>
<td>0.395</td>
<td>0.320</td>
<td>5.175</td>
<td>0.000</td>
<td>1.2</td>
</tr>
<tr>
<td>autonomy</td>
<td>Commitment</td>
<td>0.494</td>
<td>0.206</td>
<td>3.227</td>
<td>0.001</td>
<td>1</td>
</tr>
</tbody>
</table>

**The path analysis**

In order to examine the predictive role of independent variable as well as investigate their direct and indirect effects on dependent variable, we used structural equation model. After designing the model, the model was studied and related indices of goodness of fit and measurement errors were obtained. In this regard, as shown in Table 3, five different criteria were measured.
Table 3 - Parameters associated with the model presented

The final model in Figure 1 shows that a direct and indirect relationship exists between the coaches’ autonomy-supportive behaviors and sport commitment (0.25), and total direct and indirect effects on the commitment of the players is 0.6251.

![Figure 1: The model of autonomy-supportive behaviors effects on commitment and psychological needs of sports players](image)

**Conclusion**

Many studies have emphasized the importance of effective communication between coach and player. Quality of effective communication is an important factor enhancing athletic performance. Hence, given the review of current research in the framework of self-determination theory, this study examines the effect of autonomy-supportive behaviors on the satisfaction of psychological needs and commitment to sport.

Results showed that there is positive relationship between autonomy-supportive behavior with satisfying the needs of competence, autonomy and team cohesion. Some research in this regard (Valerand Richter, 1995; Blanchard and Valrand, 1996; Mageau and Valerand, 2003; Reinboth et al, 2004; Alvarez et al, 2009 and Kamaroa, 2010) refer to the relationship between coaches’ autonomy-supportive behaviors and satisfaction of the above-mentioned needs. Also, The results of the research are consistent with those of Edmunds et al 2005; Coatsworth & Conroy (2009), Almagro et al (2010) and Jam et al (2010). The underlying reason for the consistency of the results is the universality of the psychological needs. Also Deci and Ryan (2000) acknowledged that an important feature of the needs is that they can’t change. In this regard, several studies have (Standage et al, 2005) showed that these needs are the same as far as sex is concerned. Also, concerning interpersonal communication in sport environments,
Valerand & Mageau (2003) have confirmed that interpersonal communication in sport settings shall meet the psychological needs and coach's support of the players.

References


