

# Social Influences on Changes in Youth Athletes' Motivation and Well-being

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## INTRODUCTION

Participation in sport is believed to lead to a number of beneficial outcomes for youth participants, such as increased self-esteem, a valuing of physical activity, and enhanced well-being (Anderson-Butcher et al., in press; Holt, 2008). Research also shows, however, that youth can also experience negative outcomes, such as high levels of stress, burnout, and low self-esteem as a result of their participation (Brustad et al., 2001). Thus, it cannot be assumed that positive outcomes are automatic consequences of participation – simply signing up to play will not guarantee positive results. Rather, the impact of sport on youth will ultimately depend on their experiences while participating.

Grounded in self-determination theory (Ryan & Deci, 2002), the goal of this project was to better understand *how* and *why* participation in sport leads to more or less positive outcomes.

### THE PURPOSES OF THE STUDY

- To determine whether changes in athletes' motivation and well-being (i.e., burnout and self-esteem) over the course of a season were predicted by the extent to which athletes' needs for competence, autonomy, and relatedness were satisfied during their participation.
- To determine whether athletes' perceptions of autonomy support provided by their coaches and parents predicted changes in their need satisfaction and subsequent changes in their motivation and well-being.



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## METHOD

### Participants

The sample ( $N = 391$ ) included adolescent athletes ( $M$  age = 15.43 years, 60.90% female, 85.90% Caucasian) from around the Midwest portion of the United States. The majority of the sample participated in team sports ( $n=295$ ).

### Procedure and Measures

Participants completed a series of questionnaires during one of their regularly scheduled team practices during the first two weeks of their season (pre-season) and again during the final two weeks (post-season). Specific details are presented in Table 1.

## RESULTS

### Descriptive Statistics

Table 2 presents the descriptive statistics and the bivariate correlations among the study variables. The pattern of relationships were all in the expected direction.

### Path Analysis

LISREL 8.7 was used to test the hypothesized model. Details are as follows:

- All model constructs are represented as observed score variables.
- The data was input using the asymptotic covariance matrix, and robust maximum likelihood estimation procedures were used.
- Multiple fit indices were used to evaluate the adequacy of the estimated model. A good fit would be reflected by a non-significant ( $p > .05$ ) SB  $\chi^2$  value, root mean square error of approximation (RMSEA)  $< .05$ , and a goodness of fit index (GFI) of  $> .95$ .
- While not illustrated in Figure 1 for simplicity sake, changes in the athletes' perceived competence, autonomy, and feelings of relatedness were allowed to correlate, as were the changes in motivation, self-esteem, and burnout.

Results showed that the hypothesized model fit the data quite well ( $df = 9$ ,  $\chi^2 = 10.81$ ,  $p = .29$ ,  $RMSEA = .02$ ,  $GFI = .99$ ). Figure 1 presents the significant ( $p < .05$ ) standardized path coefficients (non-significant paths are omitted for simplicity). Highlights of the results are as follows:

- Changes in all three needs significantly predicted changes in self-determined motivation, self-esteem, and burnout, with the lone exception being a non-significant relationship between perceived autonomy and self-esteem.
- Interestingly, only perceived coach autonomy support significantly predicted changes in need satisfaction. Paths between autonomy support from mothers and fathers and changes in perceived competence approached significance.
- The model accounted for 19-24% of the variation in need satisfaction changes and 8%, 6%, and 12% of the variation in changes in self-determined motivation, self-esteem, and burnout, respectively.

Table 1: Measures

Pre-Season	Post-Season	Assessment Method
perceived competence	perceived competence	5 items developed by Amorose (2003)
perceived autonomy	perceived autonomy	6 items developed by Hollmark and Amorose (2003)
perceived relatedness	perceived relatedness	Feelings of Relatedness Scale (Richter & Valleraud, 1998)
self-determined motivation	self-determined motivation	Behavioral Regulation in Sport Questionnaire (Lombard et al., 2008)
self-esteem	self-esteem	Self-Esteem Scale (Rosenberg, 1965)
burnout	burnout	Athlete Burnout Questionnaire (Rundell & Smith, 2001)
coach autonomy support	coach autonomy support	Short version of the Sport Climate Questionnaire ("Perceived autonomy support" version; 2004)
mother autonomy support	mother autonomy support	Modified version of Sport Climate Questionnaire ("Perceived autonomy support" version; 2004)
father autonomy support	father autonomy support	Modified version of the Sport Climate Questionnaire ("Perceived autonomy support" version; 2004)
demographics	demographics	standard form asking about age, sex, sport history, etc.

Table 2: Descriptive Statistics and Correlations

	1.	2.	3.	4.	5.	6.	7.	8.
1. coach autonomy support	—							
2. mother autonomy support	.33	—						
3. father autonomy support	.33	.52	—					
4. changes in perceived competence	-.41	-.28	.27	—				
5. changes in perceived relatedness	.43	.21	.21	.36	—			
6. changes in perceived autonomy	.48	.19	.13	.35	.39	—		
7. changes in self-determined motivation	.25	.15	.14	.40	.40	.32	—	
8. changes in self-esteem	.27	.19	.14	.41	.23	.22	—	
9. changes in burnout	-.41	-.16	-.17	-.56	-.36	-.42	-.36	—
M	4.99	4.04	3.90	.06	.01	.16	-.96	.14
SD	1.53	.86	1.01	.93	1.04	1.10	5.22	.50

Note: All correlations significant at  $p < .05$ .

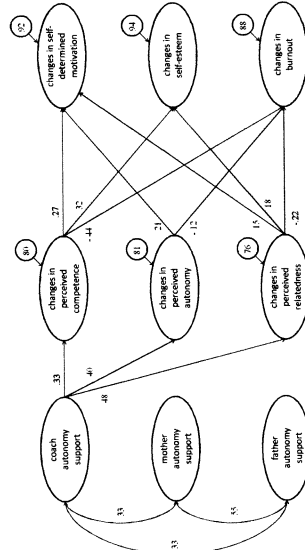


Figure 1: Significant Standardized Path Analysis Results

## SUMMARY

The results provide further support for the basic tenants of SDT (Ryan & Deci, 2002) in that changes in athletes' perceived competence, autonomy, and relatedness predicted changes in motivation and well-being outcomes.

Furthermore, general support for SDT is evidenced by the fact that perceived coach autonomy support was a significant positive predictor of changes in all three needs and indirectly predicted changes in motivation and well-being. These findings add to a growing body of literature highlighting the positive impact of coaches adopting a more autonomy supportive interpersonal style (see Amorose, 2007; Mageau & Vallerand, 2003).

Contrary to expectations, however, mother and father autonomy support did not significantly contribute to changes in athletes' psychological responses. While related research has shown that parents' influence, relative to significant others directly involved in the activity (e.g., coaches, teammates), is lesser (see Amorose, 2003), future research is needed to explore the combined and possible interactive effects of multiple others to understand these processes more fully.

Despite some potential study limitations (e.g., limited sample, exclusive use of self-report measures, use of change scores), the findings contribute to our understanding of *how* and *why* participation in sport leads to more or less positive outcomes for youth participants.

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