

Collective efficacy, cohesion and performance in spanish amateur female basketball

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COLLECTIVE EFFICACY, COHESION AND PERFORMANCE IN SPANISH AMATEUR FEMALE BASKETBALL

KEY WORDS: Collective efficacy, Cohesion, Performance, Basketball, Women.

ABSTRACT: The purpose of this study was to examine the relationships between collective efficacy, cohesion and team performance in the Spanish amateur female basketball. Players (N = 68) from 8 basketball teams completed the Spanish versions of the Collective Efficacy Questionnaire for Sport and the *Group Environment Questionnaire for Sports* at the end of the 2011/2012 season. Collective efficacy was a powerful explanatory factor of success whereas general group cohesion was not. Even though, the players from successful teams declared higher levels of attraction to and integration with the group in relation to the task.

Excellence in sports is elusive by definition and both coaches and sports scientists know that for sure. The science of coaching searches for performance indicators and models (Eugster, 2012; Franks and Goodman, 1986) that may help in the decision making of coaches and trainers. The characteristics of the game of basketball (Parlebas, 1999) make this search a challenging venture that must take into account not only its structural complexity (Martín Acero and Lago Peñas, 2005) but also the psychosocial issues related to players, teams and coaches themselves. Collective efficacy and cohesion are two of the main topics in the accountability of success in team sports and our interest is to explore their alleged relationship with performance in the Spanish female amateur basketball.

Collective efficacy is defined as the group's shared belief that emerges from an aggregation of individual group members' perception of the group's capabilities to succeed at a given task (Bandura, 1997). Collective efficacy, often addressed interchangeably as team efficacy, can be seen as the extension of Bandura's self-efficacy theory to groups. The confidence on and the perception of an individual athlete of his/her team may even predict team performance more than the confidence an individual athlete places on his/her own individual abilities (Feltz and Lirgg, 1998)

Research on collective efficacy and performance has grown in recent years producing contradictory conclusions. Maclean and Sullivan (2003) concluded that no consistent relationships were found between collective efficacy and performance in one team in intercollegiate male basketball. Some other studies, with stronger designs in terms of sample size and number of teams, concluded differently. Feltz and Lirgg (1998) followed six ice hockey teams over the course of one season and found that aggregated team efficacy beliefs were a stronger predictor of performance than players' individuals efficacy beliefs. Myers, Payment, and Feltz (2004) studied 12 women's ice hockey teams and concluded that there is a reciprocal relationship between

collective efficacy and performance and suggested that, because collective efficacy is amenable to change, managers and team leaders should try to use techniques to improve the team members' sense of collective efficacy.

Cohesion is another interesting trait of a group's dynamics that has been called upon to explain successful performance. Cohesion has been thought of as a "dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs" (Paskevich and Mark, 1996). Group cohesion is a complex construct (Carron and Brawley, 2000): *Group Integration-Social* (GI-S; how the team functions at a social level), *Group Integration-Task* (GI-T; how the team functions to achieve important team goals), *Individual Attraction to the Group-Social* (ATG-S; the extent to which athletes are attracted to the team by its social environment), and *Individual Attraction to the Group-Task* (ATG-T; the extent to which athletes are attracted to the team to achieve important goals).

Gammage, Carron and Estabrooks (2001) added the supposition in the definition of cohesion that group cohesion facilitates performance, productivity, and achievement in helping both to the development and the protection of the group and to the accomplishment of the group's goals. Although lots of researchers in sport psychology agree that cohesiveness and team performance are related but they have not identified yet whether cohesiveness leads to better performance or better performance leads to cohesiveness. Carron and Chelladurai (1981) argued that cohesion is conceptually linked to performance by facilitating effective interaction and that such a relationship is applicable only to those sports where interaction and coordination are predominant predictors of performance. Basketball is an example of sport where people gather in groups and compete against others under agreed rules.

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Numerous studies have been conducted on group dynamics and performance in basketball in North America and Europe, and overall results point at positive links between cohesiveness and performance in basketball (Hardy, Eys and Carron, 2005). Martens and Peterson’s study (1971) involving over 1200 male intramural basketball players on 144 teams constituted an early benchmark in sport cohesiveness research, generating some of the strongest support for a positive performance-cohesion relationship. Bray and Whaley (2001) also employed basketball players to investigate the relationship between work output and team cohesion. Their results pointed out that work output was positively related to all four dimensions of cohesion on the *Group Environment Questionnaire* (GEQ) and they concluded that cohesion is positively related to individual work output.

Taking this into account, the main purpose of this study was to analyze the relationships between collective efficacy and cohesion and performance in the Spanish amateur female basketball. Although it could be considered a pilot study, we think that our results can be interesting enough for the community of coaches of women’s basketball, top women’s team sport in Spain both in practice and media.

Method

The target population for this study was amateur female basketball players from the Basque Country. Our sample consisted of 68 basketball female players at Clubs from the Basque Country Region (6 from Bizkaia, and 2 from Álava). They all participated in 1st and 2nd national division leagues during the 2011/2012 season. Teams were chosen based on representative and accessibility basis from the province from both leagues (1st and 2nd division). All of the coaches contacted consented to participate in the research after being informed of purposes and conditions of the study. Consent forms and questionnaires were given to each player to complete individually

during data collection before one of their training sessions at their usual locations.

The instruments used for this study were:

The Spanish version of the *Collective Efficacy Questionnaire for Sports* (Roman Martínez, Guillen and Feltz, 2011). The unit of analysis used in this research project is the total collective efficacy score, and not each subscale one. The total score was chosen based on collective efficacy’s overall impact and not the impact of each component of the construct.

The Spanish version of the *Group Environment Questionnaire for Sports* (Iturbide, Elosua and Yanes, 2010). The unit of analysis was the group averages, more specifically the group’s means of each four subscales (Carron, Bray and Eys, 2002).

Athletes completed just one measure at the end of the season. Administration of the questionnaires took place within the 2 weeks before the competition came to an end. The teams’ performance variable, win/loss percentage, was recorded for each team at the completion of each one’s respective season. Teams with a winning percentage higher than 50% were classified as successful.

Results and discussion

Table 1 contents mean values for each performance level and the results from the ANOVA test showing that athletes from successful teams rated higher in collective efficacy than unsuccessful teams. Our results are congruent with those from Spink (1990), Lirgg, Feltz and Chase (1994) and Swain (1996) who found that collective efficacy was positively correlated with group performance. They reported that teams with higher collective efficacy scores performed significantly better in competition than teams with lower levels did in all of the dimensions of the construct.

	N	Mean	SD	Std. Error	95% Confidence Interval for Mean		F	Sig.	
					Lower Bound	Upper Bound			
Persist.	1	36	7.22	1.17	.19	6.51	7.43	18.29	.000
	2	32	5.71	1.72	.30	5.84	6.83		
	Total	68	6.51	1.63	.20	6.34	7.01		
Prep.	1	36	7.24	1.31	.22	6.59	7.46	18.85	.000
	2	32	5.71	1.60	.28	6.62	7.81		
	Total	68	6.52	1.63	.20	6.76	7.47		
Unity	1	36	7.41	1.59	.26	5.53	6.45	11.01	.001
	2	32	6.04	1.81	.32	5.40	6.41		
	Total	68	6.76	1.82	.22	5.62	6.28		
Ability	1	36	7.38	1.31	.22	5.95	6.75	19.41	.000
	2	32	5.84	1.57	.28	4.84	5.78		
	Total	68	6.66	1.62	.20	5.54	6.19		
Effort	1	36	6.99	1.46	.24	6.24	6.93	9.69	.003
	2	32	5.78	1.73	.30	5.77	6.61		
	Total	68	6.42	1.69	.20	6.13	6.67		
TOTAL	1	36	7.25	1.18	.19	6.51	7.43	18.59	.000
	2	32	5.81	1.55	.27	5.84	6.83		
	Total	68	6.57	1.54	.18	6.34	7.01		

Table 1. CEQS means comparison between successful (1) and unsuccessful (2) teams.

In Manning's study (2008), the female basketball university team registered a total CEQS mean score of 6.99, and Heuzé, Raimbault, and Fontayne's work (2006) with French and foreign professional basketball players found scores of 7.44 and 7.74. Once again, our total mean values are congruent with previous studies and allow us to take them as a benchmark knowing that the most acute difference comes from the ability dimension and the slightest from the effort one.

From this point, we can look into the second trait of the group dynamics that we are interested in. Can cohesion explain performance differences and the perception about collective efficacy? We know that the participants could understand and inform about the competence of the group at the end of the season and so the could about the cohesion level of the teams. Table 2 shows that, as a whole, cohesion levels in successful and unsuccessful teams were alike.

	N	Mean	SD	Std. Error	95% Confidence Interval for Mean		F	Sig.		
					Lower Bound	Upper Bound				
ATG-T	1	36	6.97	1.34	.22	6.51	7.43	3.70	.059	
	2	32	6.33	1.38	.24	5.84	6.83			
	Total	68	6.67	1.39	.17	6.34	7.01			
ATG-S	1	36	7.03	1.28	.21	6.59	7.46	.27	.605	
	2	32	7.21	1.65	.29	6.62	7.81			
	Total	68	7.11	1.46	.18	6.76	7.47			
GI-S	1	36	5.99	1.37	.23	5.53	6.45	.07	.796	
	2	32	5.91	1.39	.24	5.40	6.41			
	Total	68	5.95	1.37	.16	5.62	6.28			
GI-T	1	36	6.35	1.19	.20	5.95	6.75	11.69	.001	
	2	32	5.31	1.31	.23	4.84	5.78			
	Total	68	5.86	1.34	.16	5.54	6.19			
TOTAL	1	36	6.58	1.03	.17	6.24	6.93	2.20	.142	
	2	32	6.19	1.16	.20	5.77	6.61			
	Total	68	6.40	1.10	.13	6.13	6.67			

Table 2. GEQS means comparison between successful (1) and unsuccessful (2) teams.

Even though, when looking into the cohesion subscales the same we find a similar situation as far as collective efficacy was concerned: the members of successful teams show higher attraction to the group and integration in relation to the task itself with no differences in both social dimensions nor in a weak way (Marcos et al., 2011). Likewise, Leo et al. (2010) stated that social cohesion was a better predictor of performance than task cohesion in U-16 male basketball players. On the contrary, our results are a confirmation of those found by Paskevich, Brawley, Dorsch and Widmeyer (1999) and Carron, Bray and Eys (2002).

Conclusion

The level of collective efficacy allows detecting successful and unsuccessful teams in the Spanish amateur female basketball. This clearly discriminant perception of the competitive ability is strongly related to the task domains of group cohesion. Social cohesion is not relevant in terms of successful performance. Nevertheless, due to its circular relationships, team efficacy, cohesion and performance must be taken into account from both sides of the mirror, both as a reflection of higher collective performances and the basis for success, both as an evaluation tool and a coaching content.

EFICACIA COLECTIVA, COHESIÓN Y RENDIMIENTO EN BALONCESTO FEMENINO AMATEUR

PALABRAS CLAVE: Eficacia colectiva, Cohesión, Rendimiento, Baloncesto, Mujer.

RESUMEN: El objetivo de este estudio fue el de examinar las relaciones entre la eficacia colectiva, la cohesión y el rendimiento en el baloncesto español amateur femenino. Para ello, 68 jugadoras amateurs de ocho equipos diferentes completaron las versiones españolas del *Collective Efficacy Questionnaire for Sport* y del *Group Environment Questionnaire for Sports* al final de la temporada 2011/2012. Los resultados mostraron que la eficacia colectiva declarada por las jugadoras es un potente factor de explicación de rendimiento, a diferencia de la cohesión de grupo general. Sin embargo, y en consonancia con la primera conclusión, las jugadoras de los equipos exitosos declararon mayores niveles de atracción e integración con el grupo en relación a la tarea.

EFICÁCIA COLECTIVA, COESÃO E RENDIMENTO NO BASQUETEBOL AMADOR FEMININO

PALAVRAS-CHAVE: Eficácia colectiva, Coesão, Rendimento, Basquetebol, Mulheres.

RESUMO: O objetivo deste estudo foi examinar as relações entre a eficácia coletiva, a coesão e o rendimento no basquetebol espanhol amador feminino. Para tal, 68 jogadoras amadoras de oito equipas diferentes completaram as versões espanholas do *Collective Efficacy Questionnaire for Sport e do Group Environment Questionnaire for Sports* no final da temporada 2011/2012. Os resultados mostraram que a eficácia colectiva declarada pelos jogadores é um fator potente em desempenho explicando, ao contrário de coesão do grupo em geral. No entanto, e de acordo com a primeira conclusão, os jogadores bem sucedidos equipas relataram maiores níveis de atração e integração com o grupo em relação à tarefa.

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