

Team building intervention program and its relationship with group processes in young athletes

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The aim of the present study is to analyze the effects of a pilot intervention program based on team building in diverse variables of group dynamics such as team cohesion, team conflict, transactive memory systems, and collective efficacy. Participants were 53 young players divided into an experimental group (n = 28) and control group (n = 25). The methodological design was quasi-experimental, with pre- and post-intervention measures. The application of the intervention program, based on team building, lasted two months. The results showed significant differences in the psychosocial variables evaluated between the control group and the experimental group after the implementation of the intervention program. Therefore, the application of team building strategies seems adequate to improve group dynamics in sport teams.

KEY WORDS: Cohesion, Collective efficacy, Team building, Team conflict, Transactive memory system.

Psychological training is becoming increasingly important in sports and, more specifically, in team sports (Brown & Fletcher, 2017; McEwan, Ruissen, Eys, Zumbo, & Beauchamp, 2017). There are many studies using correlational methodology that have tried to analyze different psychological variables related to improving sport teams' functioning (De Backer, Boen, De Cuyper, Høigaard, & Vande Broek, 2015; Eys et al., 2015; Filho, Tenenbaum, & Yang, 2015; Fransen et al., 2015). However, few works have tried to implement an intervention program to improve team functioning (i.e., "the team's ability to develop adequate cognitive, motivational, affective, and coordinative processes"; Leo, García-Calvo, González-Ponce, Pulido, & Fransen, 2019, p. 2), and the benefits found in some cases were not as expected (e.g.:

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cohesion; Bloom & Loughhead, 2011; Martin, Carron, & Burke, 2009; Paradis & Martin, 2012). The studies carried out to date have been mainly oriented towards cohesion, ignoring other variables cited in the organizational development literature (Bloom & Loughhead, 2011). In this sense, this research intends to implement an intervention program to improve the construction of the team (i.e., “a sense of unity whereby the whole is greater than the simple sum of its parts”; Beauchamp, McEwan, & Waldhauser, 2017; p. 114) and its relationship with diverse dynamic variables that have shown some benefits within sport teams.

Team Building In Sport

The concept of *team building* can be defined as “a method of helping the group to increase effectiveness, satisfy the needs of its members, or improve work conditions” (Brawley & Paskevich, 1997, p. 13). According to Yukelson (1997), team building is an “ongoing, multifaceted process where group members learn how to work together for a common goal, and share pertinent information about the quality of the team functioning for the purpose of establishing more effective ways of operating” (p. 73). Based on previous research, Carron and Spink (1993) developed a conceptual framework for implementing a team building program (Figure 1). The model is linear, consisting of inputs, throughputs, and outputs. This model comprises two inputs: a) team environment refers to aspects related to the differential char-

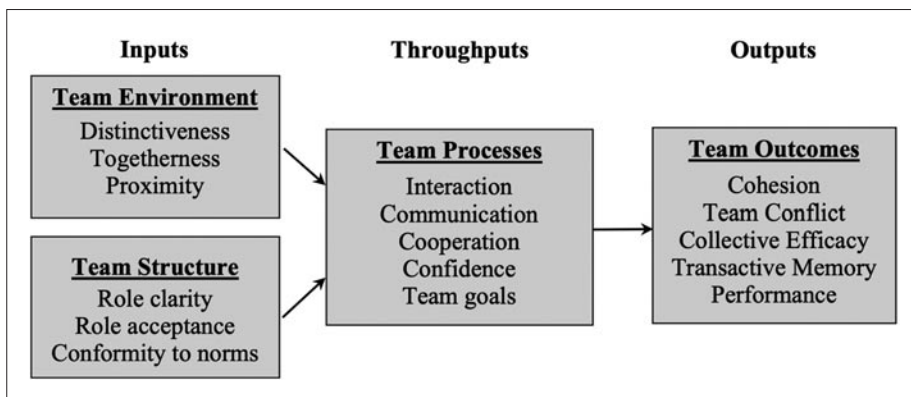


Fig. 1. Conceptual model for team building in sport (adapted from Carron & Spink, 1993; Paradis & Martin, 2012).

acteristics of the members of the group and the union between them, and b) team structure, which includes factors such as group roles and group norms. Team processes (throughputs) are a central element and include variables such as communication, cooperation, group objectives, etc. Finally, team outputs refer to the expected outcomes of the proposed intervention (team cohesion, collective efficacy, performance...).

In this sense, this conceptualization has served to develop intervention programs that have been directed towards two kinds of work: a) a direct method, where the specialist in sports psychology works directly with the players, or b) an indirect method, where the sports psychology specialist works exclusively with the coach, who then implements the intervention (Carron, Spink, & Prapavessis, 1997). Research has shown that both protocols are equally effective but, in many cases, it depends on the characteristics and the objective of the intervention (Martin et al., 2009).

The duration of the intervention can determine the effectiveness of this type of program. Specifically, intervention programs that lasted less than 2 weeks did not reflect significant effects, whereas programs that lasted between 2 and 20 weeks showed significant change (Martin et al., 2009). Another important aspect is the type of intervention carried out, as those that focus on setting goals are more effective (Senécal, Loughhead, & Bloom, 2008) than other approaches based on joint adventure activities (Martin et al., 2009). The trend in the development of intervention programs is for the group dynamics approach to be carried out outside the scope of training, despite the fact that it seems that strategies developed during training are more effective (Leo, García-Calvo, Parejo, Sánchez-Miguel, & García-Mas, 2009). In fact, Mcewan et al. (2017) have revised the concept of teamwork, underlining the importance of the players' conjoint work in the training sessions. However, to our knowledge, few interventions have focused on the inclusion of team building strategies associated with technical-tactical training tasks (Leo et al., 2009). For instance, Chicau, Silva, and Palmi (2012) developed a team building intervention based on the identification and communication to the players about three tactical functions in offense and defensive situations, but they did not implement technical-tactical training tasks to improve the team functioning.

Another relevant aspect within team training interventions are the outcome variables analyzed. A greater improvement is generally reflected in the measures of performance (Martin et al., 2009) but, within the sport context, there have also been attempts to improve psychosocial variables such as role clarity (Prapavessis, Carron, & Spink, 1996), communication (Newin, Bloom, & Loughhead, 2008), leadership (Smith & Smoll, 1997), or satisfaction (Bruner & Spink, 2011; Carron & Spink, 1993; Chicau et al., 2012).

However, team building interventions have been mainly focused on group cohesion (Chicau et al., 2012; Leo et al., 2009; Senécal et al., 2008; Wikman, Stelter, & Petersen, 2017), defined 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 the satisfaction of members’ affective needs” (Carron, Brawley, & Widmeyer, 1998, p. 213). The construct of group cohesion contains four dimensions (Carron & Eys, 2012): Individual Attraction to the Group–Task (ATG-T), Individual Attraction to the Group–Social (ATG-S), Group Integration–Task (GI-T), and Group Integration–Social (GI-S). However, the research of interventions on group processes has revealed little effect on social cohesion (ATG-S and GI-S) and no significant effect on task cohesion (ATG- and GI-T) (see Martin et al., 2009).

One of the reasons for these results may be the variety of the type of activities carried out, which often focus on social aspects than on task cohesion (Bloom & Loughhead, 2011; Bruner & Spink, 2011; Eys et al., 2015; Martin et al., 2009). Another reason may be that team building interventions may exert more influence through other psychological processes (individual and group) than through the process of simply bringing people together and making them feel more united. Bruner, Eys, Beauchamp, and Côté (2013) warn that key aspects of other areas of psychology have been largely ignored, and that this predominant approach to the development of cohesion may be somewhat restrictive.

In this sense, analyzing variables with negative connotations can provide a broader view of the benefits of intervention programs (Leo, González-Ponce, Sánchez-Miguel, Ivarsson, & García-Calvo, 2015; Paradis, Carron, & Martin, 2014). It is relevant to highlight that previous research have exclusively measured positive outcomes (Bruner & Spink, 2011; Chicau et al., 2012; Martin et al., 2009; Leo et al., 2009). Conversely, it is essential for a team to also be able to overcome potential barriers to team success such as team conflict (Leo et al., 2019; Paradis et al., 2014). For example, although team building would be important to obtain positive results, this is only beneficial when it is not counteracted by a larger team conflict (Leo et al., 2019). In this line, team conflict has received much attention and has been established as a determinant of team dynamics. Team conflict has been defined as a “dynamic process that occurs between interdependent parties as they experience negative emotional reactions to perceived disagreements and interference with the attainments of their goals” (Barki & Hartwich, 2004, p. 234). In fact, team conflict has been considered an antagonist of cohesion and it can reflect the group dynamics of sport teams more clearly.

In addition, Bruner et al. (2013) pointed out that there may be other group mechanisms that act as mediators and that could reflect improvements

in the team's functioning. In this sense, collective efficacy, defined as "the beliefs of the group in the set of capacities to organize and execute the lines of action required to produce the proposed achievements" (Zaccaro, Blair, Peterson, & Zazanis, 1995, p. 309) can be improved by a program based on team building that promote cooperation, communication and trust among players (Leo et al., 2009), and is one of the variables that predicts sports performance (Filho et al., 2015; Leo, Amado, Sánchez-Oliva, Sánchez-Miguel, & García-Calvo, 2016; Myers, Feltz, & Short, 2004).

Another group of variables that has gained strength in the relationship between cohesion and performance are the collective cognitive processes (Filho et al., 2015; Leo et al., 2016). One of the most complete concepts is that of transactive memory systems (TMS), defined as "a shared system for encoding, storing, and retrieving information" (Wegner, Raymond, & Erber, 1991, p. 923), made up of the set of knowledge that each individual possesses and the intersubjective awareness of the knowledge that is possessed by others (who knows what). For example, during games, players have to constantly make decisions and if they know "who does what" (i.e., play more or less quickly, decide which side to attack, take a corner kick or free throw, etc.) the effectiveness of those decisions can improve (Leo et al., 2016). If we take into account that team building programs encourage teamwork, setting collective goals, and cooperation among players, then promoting improvements in a shared memory system may be relevant. In this way, we would be analyzing the benefits in different collective processes and not focusing attention solely on group cohesion (Bruner et al., 2013).

The Present Study

This study aims to contribute new knowledge to scientific literature within the intervention programs based on team building. As verified in the literature, there are hardly any studies that show how a team building intervention program influences different variables of collective processes such as cohesion, team conflict, collective efficacy, and transactive memory. Furthermore, most intervention programs have developed proposals inside and outside of trainings sessions, mainly to improve social aspects (Martin et al, 2009). Thus, this work will develop a pilot intervention program based on team building with different technical-tactical training tasks and group dynamics, focused on variables related to group environment, group structure, and group processes, three of the main factors of the team building model (Carron & Spink, 1993). Therefore, the main aim of the study is to analyze the effect of a team building intervention program on group vari-

ables, such as group cohesion, team conflict, transactive memory, and collective efficacy in soccer teams. Based on this aim, the main hypothesis that arises in this study is that after the intervention program, significant differences will be found between the experimental group compared with the control group in the variables under investigation (i.e., group cohesion, team conflict, transactive memory, and collective efficacy). Specifically, the experimental group will show higher values in these variables compared with the control group after the intervention program.

Method

PARTICIPANTS

A total of 53 athletes and four coaches from different clubs participated in the study. The athletes were 53 male soccer players aged between 14 and 16 years ($M = 14.90$, $SD = 2.56$), belonging to four under-16 teams of the first division of the Spanish soccer League. The average experience of the players in the club was 5.35 years ($SD = .29$). The intervention program was carried out with four male head coaches ($M = 26.3$, $SD = 4.86$), who had a soccer coaching license and at least four years of experience in training categories.

Of the initial athlete sample ($n = 58$), five players were removed (9,1%). These players could not complete the final measurement because they could not attend the team's training (injury or illness).

INSTRUMENTS

Team cohesion. The Group Environment Questionnaire (GEQ; Carron, Widmeyer, & Brawley, 1985) developed by Leo, González-Ponce, Sánchez-Oliva, Pulido, and García-Calvo (2015) was used to assess team cohesion. The GEQ consists of four subscales measuring Individual Attraction to Group–Task (ATG-T, three items, e.g., “I am pleased with my contribution to the team's game”), Attraction to Group–Social [ATG-S, three items, e.g., “I like to participate in activities aside from sports with the other team athletes (meals, excursions...)”], Group Integration–Task (GI-T, three items, e.g., “Team members are united in their efforts to reach their performance goals in training sessions and matches”), and Group Integration–Social (GI-S, three items, e.g., “Team members would like to spend time together in situations other than training and games”). Responses were recorded on a Likert scale ranging from 1 (*strongly disagree*) to 9 (*strongly agree*).

Team conflict. Team Conflict was measured using the six-item scale developed by Jehn (1995) and adapted by Tekleab, Quigley, and Tesluk (2009). Each item starts with the introductory stem “How frequently...”. It is divided into two factors: Task Conflict (three items, e.g., “... were there differences of opinion on your team?”) and Relationship Conflict (three items, e.g., “...was there tension among members on your team?”). Responses were rated on a 7-point Likert scale ranging from 1 (*never*) to 7 (*always*).

Transactive memory system. Transactive Memory System Scale developed by Lewis (2003), and adapted to the sport context by Leo, González-Ponce, Sánchez-Oliva, Pulido, and

García-Calvo (2018) was used to assess Transactive Memory. This scale is composed of one second-order factor (15 items) and three first-order factors: Specialization (three items, e.g., “each team member has specialized knowledge of some aspect of our play”), Credibility (three items, e.g., “I feel comfortable accepting suggestions from my teammates about the game”), and Coordination (three items, e.g., “our team worked together in a well-coordinated fashion”). Responses were rated on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Collective efficacy. Collective efficacy was measured using the short version of The Football Collective Efficacy Questionnaire developed by Leo, García-Calvo, Parejo, Sánchez-Miguel, and Sánchez-Oliva, (2010). This instrument starts with a stem phrase (i.e. “Our team’s confidence in our capability to...”) and has a total of six items that refer to certain football situations (i.e., “... resolve game situations in the attacking phase”), which are grouped into a single factor. Responses were rated on a 5-point Likert scale ranging from 1 (*bad*) to 5 (*excellent*).

Perceived team performance. To assess perceived team performance, we assessed the subjective perception of the players of the team performance through a single-item scale was previously used by Dithurbide, Sullivan, and Chow (2009). More specifically, players were asked to rate their team’s performance on a 5-point scale ranging from 1 (*poor*) to 5 (*excellent*). Although, single item scales have been discussed, Tenenbaum and Gershgoren, (2011) have argued that this type of measure has greater ecological validity.

PROCEDURE

The study received ethical approval from the first author’s university; Vice-Rectorate of Research, Transfer and Innovation - Delegation of the Bioethics and Biosafety Commission (Protocol number: 137/2015). The main researcher contacted the teams and coaches to explain the study’s objectives, and to ask for their participation in the project. Upon approval to participate in the study, the research assistants provided each individual with a letter of information and a consent form (to be signed by both the participant and a parent/guardian). All participants were treated according to the American Psychological Association ethical guidelines regarding consent, confidentiality, and anonymity of responses.

In this research, a repeated measures quasi-experimental design was carried out, with pre-test, intervention program, and post-test measures. There were two independent groups, a control group with two teams ($n = 25$) and an experimental group with another two teams ($n = 28$). The players and the coach in each team were predefined, but the assignment of the teams in the control and experimental groups was randomized. In both groups, we measured the dependent variables (cohesion, team conflict, transactive memory, collective efficacy, and team performance) one week before the start of the league competition. All teams trained three times per week and had a competition every week. Subsequently, a second evaluation was performed to determine the effects in the dependent variables as a consequence of the independent variable (the intervention program). The second measure was carried out two weeks after the intervention program was completed. The questionnaires were completed by the players without the presence of the coach, in a quiet environment. The main investigator was present at all times to clarify any doubts that might arise. Data collection through the questionnaires was carried out during the teams’ training sessions.

The intervention program, which was implemented with the coaches of the experimental group, was made up of four stages, following the suggestions of Carron and Spink (1993): a) an introductory stage, where all the information is presented: the objectives of the study, the tasks and dynamics to be developed, as well as the duration of the program; b) the conceptual

stage, where the theoretical model underpinning the intervention is explained, as well as its balance and benefits. For this purpose, a video about the importance of psychological training in these aspects was presented; c) the practical stage, where coaches receive detailed training to develop the intervention program; d) the intervention stage, where the specific program developed by the coach in the three previous stages is implemented with the players (i.e., an indirect method; Carron et al., 1997).

The first three phases were carried out in three 2-hour meetings (Paradis & Martin, 2012), and the fourth phase lasted two months. The intervention stage included team goals setting, 14 training tasks, and five group dynamics. Firstly, at the beginning of the intervention, a meeting to team goals setting were designed to defined task and performance objectives in the short, medium and long term. Secondly, in those two months, the 14 tasks proposed in the intervention stage are carried out during trainings in the soccer field. The designed tasks were directly related to technical-tactical aspects of soccer and included warm up (seven tasks), main part (four tasks), and return to calm (three tasks), aimed at working with the model's inputs and throughputs (e.g., quick defensive recovery task where interaction, communication, cooperation and confidence were necessary to solve the task successfully). Thirdly, five group dynamics were designed to be carried out outside of training. These group dynamics were activities of knowledge and trust among players, games of cooperation and identity with the team, meeting to establish rules of the team, punishments and rewards, day of coexistence among players, and departure to see teamwork in teams of higher category.

Concerning control group, the coaches developed the trainings they considered appropriate depending on the objectives to achieve in their teams. Furthermore, the coaches of both groups previously informed us about trainings and tasks that were not part of the intervention and later, one of the researchers performed a follow-up and anecdotal record of what was carried out in control and experimental group. Both the design of the training and the register of the sessions were examined by the group of researchers to ensure that what was carried out during the training did not affect the variables under research.

TABLE I
Intervention Program based on Team Building

Stages	Content
1. Introductory stage(2 hours)	Meeting to present the objectives, the tasks and dynamics to be developed, as well as the duration of the program.
2. Conceptual stage(2 hours)	Meeting to show theoretical model underpinning the intervention is explained, as well as its balance and benefits.
3. Practical stage(2 hours)	Meeting where coaches receive detailed training to develop the intervention program.
4. Intervention stage (2 months)	The coach develop with the players the program learn in the three previous stages:A meeting to team goals setting were designed to defined task and performance objectives in the short, medium and long term. 14 designed tasks related to technical-tactical aspects of soccer are carried out during trainings in the soccer field: 1) seven tasks in the warm up; 2) four tasks in the main part; and 3) three tasks in the return to calm. Five group dynamics were designed to be carried out outside of training: 1) activities of knowledge and trust among players; 2) games of cooperation and identity with the team; 3) meeting to establish rules of the team, punishments and rewards; 4) day of coexistence among players; and 5) departure to see teamwork in teams of higher category.

Data analysis

All statistical analyses were performed with the SPSS 23.0. A descriptive analysis of the research variables before and after the intervention program in the control group and the experimental group was carried out. In addition, one-way repeated measures multivariate analysis of variance (i.e., the one-way repeated measures MANOVA) was performed for the dependent variables of the study, including a within-subject factor (measure), that is, the pre-test post-test difference in the players themselves; a between-subject factor (group), that is, the group differences; and the interaction of the within-subject and between-subject factors to determine the effect of the intervention program.

Results

Table II shows the results of the descriptive statistics and reliability analysis of the dependent variables at pre-test and post-test of all the participants, as well as of the two groups of players (control group and experimental group). All scales had acceptable internal consistency [$\alpha < .70$; (Cronbach, 1951)], and only GI-S and TMS at pre-test and collective efficacy at post-test yielded lower values ($\alpha < .60$; see Table 2). Although the former value reflects a relatively low internal consistency, Lowenthal (2001) recommended that values above .60 should be considered suitable if there is good validity evidence, good theoretical support for the scale, and there are fewer than 10 items. As the present scale meets all these criteria, the internal consistency was deemed acceptable.

TABLE II
Descriptive Statistics and Reliability of the Variables at Pre-test and Post-test

	Global				Control Group		Experimental Group	
	Pre-test <i>M (SD)</i>	α	Post-test <i>M (SD)</i>	α	Pre-test <i>M (SD)</i>	Post-test <i>M (SD)</i>	Post-test <i>M (SD)</i>	Pre-test <i>M (SD)</i>
GI-T	7.10 (1.40)	.86	6.91 (1.84)	.81	7.64 (1.23)	6.85 (1.98)	6.67 (1.75)	6.95 (1.81)
ATG-T	7.03 (1.98)	.81	7.18 (1.53)	.89	7.57 (1.59)	6.73 (1.68)	6.38 (2.15)	7.56 (1.39)
GI-S	7.47 (1.62)	.60	7.17 (1.47)	.81	7.24 (1.22)	6.94 (1.69)	7.60 (1.59)	7.36 (1.35)
ATG-S	7.56 (1.04)	.77	7.32 (1.42)	.84	7.35 (.84)	6.97 (1.57)	7.75 (1.11)	7.67 (1.31)
Task Conflict	2.39 (1.31)	.71	2.47 (1.33)	.87	1.74 (.93)	3.04 (1.39)	2.97 (1.37)	2.93 (1.57)
Social Conflict	2.83 (1.30)	.73	2.97 (1.40)	.83	2.43 (1.25)	1.88 (.68)	3.24 (1.17)	2.93 (1.47)
TMS	3.65 (1.62)	.66	3.70 (.46)	.74	3.69 (.43)	3.59 (.49)	3.59 (.40)	3.78 (.45)
Collective Efficacy	3.97 (.54)	.74	3.80 (.53)	.68	4.20 (.42)	3.75 (.58)	3.82 (.54)	3.85 (.48)
Team Performance	3.83 (.70)	-	3.66 (.74)	-	3.76 (.66)	3.44 (.65)	3.86 (.74)	3.86 (.79)

Note. GI-T = Group Integration–Task, ATG-T = Individual Attraction to the Group–Task, GI-S = Group Integration–Social, ATG-S = Attraction to the Group–Social, TMS = Transactive Memory System.

The analysis of differences showed the effects of the group factor (between-subject), indicating that, after averaging the pre- and post-intervention scores, the players' perceptions of the group dynamics varied as a function of the study group (Wilk's $\Lambda = .44$, $F(10, 43) = 2.99$, $p < .001$; $\eta^2_p = .55$) for social attraction and task conflict. Likewise, the perception of the group dynamics also varied significantly as a function of the measure, that is, between pre-test and post-test (Wilk's $\Lambda = .62$, $F(10, 43) = 2.99$, $p = .013$; $\eta^2_p = .38$), although only for collective efficacy. In addition, the effects of the Group $\times$ Measure interaction revealed significant group differences (Wilk's $\Lambda = .59$, $F(10, 43) = 2.99$, $p = .006$, partial $\eta^2 = .41$) in the scores of GI-T ($F = 4.22$, $p = .04$; $\eta^2_p = .07$), ATG-T ($F = 12.46$, $p = .001$; $\eta^2_p = .19$), social conflict ($F = 4.27$, $p = .04$; $\eta^2_p = .07$), and collective efficacy ($F = 8.50$, $p = .005$; $\eta^2_p = .14$) after the intervention program (Figure 2).

Likewise, the players' perception of social attraction and integration, task conflict, transactive memory, and team performance revealed that the experimental group showed slightly higher values than the control group after the intervention, although the difference did not reach statistical significance (Figure 2).

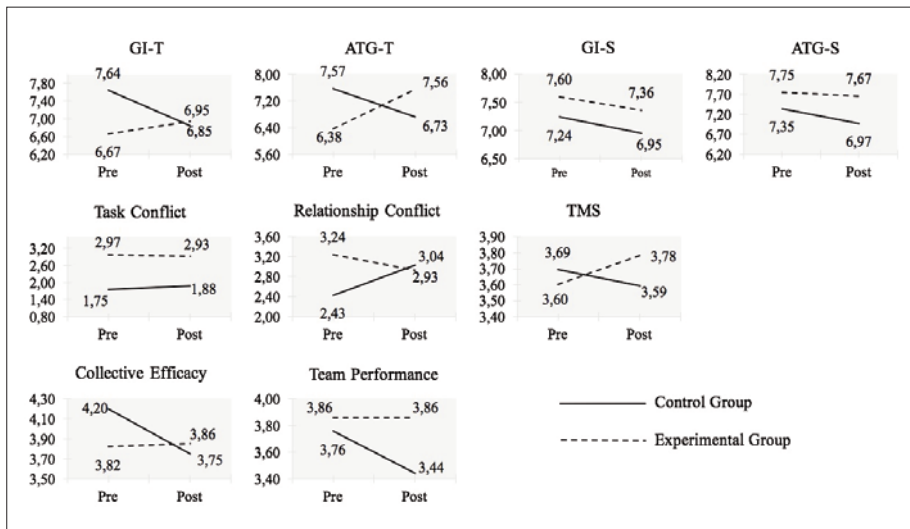


Fig. 2. Scores of the Control Group and Experimental Group at Pre-test and Post-test Measurements.

Discussion and conclusions

The main objective of the study was to examine the effect of a pilot intervention program to improve team building and its relationship with several dynamic variables that have been shown to provide some benefits in sport teams, such as team cohesion, team conflict, transactive memory, collective efficacy and team performance. In general, the results showed the benefits of an intervention program based on team building strategies involving team environment, team structure, and team processes in variables such as task integration and attraction, social conflict and collective efficacy.

Specifically, regarding the factors of cohesion, the experimental group showed a significant improvement compared with the control group in their levels of the factor task cohesion (task attraction and integration), but social cohesion did not reach significance. Previous studies had already confirmed the importance of team building to improve cohesion, but the results found by other authors were the opposite, that is, the effects of the different interventions targeting social cohesion were small, and nonexistent in task cohesion (Chicau et al., 2012; Leo et al., 2009; Martin et al., 2009). Most of the intervention programs have been developed outside the scope of training or have used non-specific tasks. This may improve social cohesion but it seems irrelevant to improve task cohesion (Bloom & Loughhead, 2011; Bruner et al., 2013; Martin et al., 2009). In this study, as the tasks were carried out within the training sessions together with technical-tactical contents, the players could unite their efforts to solve tasks relevant to team performance (Leo et al., 2009). On the contrary, as fewer strategies were aimed at fostering social cohesion, and it may take more time to establish more bonds in the group (Martin et al., 2009), the expected results were not found. Therefore, it can be stated that the intervention program produced benefits by increasing levels of task cohesion, but these same benefits cannot be claimed for social cohesion.

In relation to team conflict, both task and social conflict decreased in the experimental group compared with the control group. However, unlike cohesion, only social conflict showed significant differences. These results may be a consequence of the increased task cohesion, which unites all the players to fight for the team's goals, although it does not seem to increase social cohesion, but it might have the effect of reducing extra-sport conflicts. In addition, the lack of significant improvement in task conflicts may be justified, as, in many cases, not sharing the idea of team play cannot be modified unless the coach changes the way he/she trains and plays. Perhaps establishing strategies by which the form of the game and its benefits are valued could contribute to decreasing task conflicts within the team (Paradis et al., 2014).

Likewise, when analyzing the results, the transactive memory of the teams that received the intervention program was observed to increase, whereas in the control group, it decreased. Despite this, the differences were not significant. Detailed analysis of the transactive memory construct and its factors (Lewis, 2003) shows that, in order to create a group of players with specific tasks for each player acting coordinately and with full credibility in the other teammate's tasks – that is, a solid shared memory system – a large number of trainings in very specific tasks are necessary (Lewis & Herndon, 2011). Therefore, perhaps an increase in the duration of the intervention program and the activities in which tasks are distributed more specifically would reveal differences in an intervention program (Bloom & Loughhead, 2011).

In relation to collective efficacy, the players of the experimental group improved their perception of collective efficacy, whereas the control group showed a very marked decrease. Although few intervention programs have measured collective efficacy as an outcome after a team building program through cooperative tasks (Leo et al., 2009), they did not find any improvements in this variable. If we take into account that collective efficacy focuses on confidence in the group's competition skills, the more specific the team building program is concerning competition-related tasks, the greater the success of this program to increase the levels of collective efficacy (Myers et al., 2004).

Similarly, when measuring the evolution of team performance, while the experimental group maintained its levels, the control group presented a very pronounced decrease, although the group differences were nonsignificant. When examining the trend of the two groups and the specificity of the intervention program, we conclude that a longer duration of the program may be associated with players' more accurate perception of the program and of the benefits of team performance. In this sense, after the intervention program, the experimental teams were better classified (second and fourth), whereas the teams of the control group obtained lower positions (sixth and seventh).

Consequently, the established hypothesis can be confirmed because after the intervention program, the experimental group showed a series of benefits with regard to the control group in the variables task cohesion, social conflict, and collective efficacy. Furthermore, it is important to highlight the validity of the intervention program performed in this research, as all the dependent variables analyzed improved in the experimental group compared with the control group, although the differences were nonsignificant.

In relation to the strengths of this research, first, it used a quasi-experimental design with a control group and an experimental group, thus ensuring the benefits of the program (Bloom & Loughhead, 2011; Senécal et al., 2008). Some previous studies did not use a control group and thus, they

could not observe the true benefits of the interventions because the variables are dynamic and tend to decrease during the sport season (Bloom & Loughhead, 2011; García-Calvo et al., 2014; Leo, González-Ponce, Sánchez-Miguel, et al., 2015). In this way, we could observe how the levels remained stable in the experimental group and decreased in the control group.

Secondly, it must be pointed out that despite being an intervention program focused on training tasks and group dynamics, it has an adequate duration according to this type of programs. Previous studies with a duration of less than two weeks (Martin et al., 2009) or even shorter than eight weeks did not obtain the expected results (Bloom & Loughhead, 2011).

Thirdly, an intervention program is established focused on very specific strategies (Bloom & Loughhead, 2011; Martin et al., 2009), such as training tasks with technical-tactical contents and group dynamics. In turn, various psychological variables are appraised, which can show more specifically the benefits of this type of program (Bloom & Loughhead, 2011; Bruner et al., 2013).

Despite its strengths, it should be noted that this study also has some limitations. Initially, few participants are included in the study but, taking into account the typology of the intervention, it is not easy to reach more participants. Moreover, no follow-up assessment was carried out after a period of extinction to corroborate the long-term effect of the intervention program.

As future lines of intervention, it would be interesting to carry out a mixed analysis with quantitative data and observation and qualitative records to examine the effects of the program (Bloom & Loughhead, 2011; Bloom & Stevens, 2002; Loughhead & Hardy, 2006). In addition, we recommend performing a study in amateur teams and different collective sports, to corroborate that these intervention programs are also effective in adult population and in different sport teams focused on performance. Likewise, another prospective would be to conduct an intervention program with a longer duration (Bruner et al., 2013; Martin et al., 2009; Paradis & Martin, 2012) and with the possibility of follow-up measures throughout the season to see if the benefits are maintained over time.

Finally, the main conclusion of this research is that the team building intervention program through technical-tactical training tasks and group dynamics, and focused on improving task cohesion, social conflict, and collective efficacy showed some benefits in the sport teams' performance. The results of this study extend the previous knowledge of correlational studies where the importance of the figure of the trainer was marked to optimize variables that can improve the team functioning (De Backer et al., 2015; Hampson & Jowett, 2014; Van Puyenbroeck, Stouten, & Vande Broek, 2018). The strategies proposed in this study are not only focused on social aspects to locate all players within their role and achieve high satisfaction

within the group (Benson, Evans, & Eys, 2016), but also on task aspects during team building, where interdependence among players has been shown to help improve outcomes (Evans & Eys, 2015). In this sense, in terms of practical applications that can be drawn from this study, sports psychologists can use the strategies presented in this study to improve the group dynamics of their sport teams. Furthermore, with this intervention program, we have shown that tasks can be planned with a technical-tactical objective together with a psychological goal during the training. Therefore, sports psychologists emerge as a fundamental piece in the construction of sports teams.

Specifically, sports psychologists can have a relevant role in the design of training tasks, since they can give a component of psychological work in predominantly technical-tactical tasks. In this way, it can include in these activities components of team processes such as communication, interaction, cooperation or confidence, relevant in the construction of sports teams. One more practical application of great utility is the importance of generating tasks in training where the clarity of the roles and acceptance of them is encouraged, since it is a key in the team functioning.

In addition, this study corroborates the initial idea of establishing short, medium and long term objectives as a motivating element of the players and to be able to achieve the expected performance. As well as, to develop meetings where the rules of the group are established and a commitment is created to comply with these rules.

Another aspect that corroborates previous studies is the need to create activities inside and outside of training where the team environment is fostered (distinctiveness, togetherness, and proximity), in order to improve group processes such as cohesion, transactional memory or efficiency collective and avoid conflicts within the team.

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