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ORIGINAL

ADAPTATION TO SPANISH AND VALIDATION OF THE SPORT TEAM SOCIALIZATION TACTICS QUESTIONNAIRE

ADAPTACIÓN Y VALIDACIÓN AL ESPAÑOL DEL CUESTIONARIO DE TÁCTICAS DE SOCIALIZACIÓN PARA EQUIPOS DEPORTIVOS

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RESUMEN

El objetivo del estudio era adaptar y validar el Cuestionario de Tácticas de Socialización para Equipos Deportivos (en inglés Sport Team Socialization Tactics Questionnaire, STSTQ) con jugadores españoles amateurs y semi-profesionales. Participaron 437 jugadores de fútbol de género masculino y femenino con edades comprendidas entre los 15-39 años ($M = 21,90$; $DT = 5,67$). Se realizó un análisis factorial confirmatorio para testar la estructura factorial compuesta por tres factores: tácticas de comunicación del rol del entrenador, tácticas de socialización en serie y tácticas sociales de inclusión. Los resultados mostraron que la versión española del STSTQ demuestra índices adecuados en su estructura factorial original y valores aceptables de consistencia interna. Además, el instrumento presentó una adecuada validez discriminante y concurrente y se mostró invariante en función del nivel competitivo. Estos resultados sugieren que la versión española del STSTQ es una herramienta válida y fiable para medir las tácticas de socialización en deportes colectivos amateurs y semi-profesionales.

PALABRAS CLAVE

Dinámicas de grupos, tácticas de socialización, propiedades psicométricas, cuestionario, deportes colectivos.

ABSTRACT

The aim of the study was to adapt and validate the Sport Team Socialization Tactics Questionnaire (STSTQ) with amateur and semi-professional Spanish players. The participants were 437 male and female players aged 15 to 39 ($M = 21.90$; $SD = 5.67$). Confirmatory factor analysis was applied to test the three-factor structure: coach-initiated role communication tactics, serial socialization tactics and social inclusionary tactics. According to the results, the Spanish version of the STSTQ presented adequate index values in its original factor structure and acceptable internal consistency values. Moreover, the instrument presented adequate discriminating and concurrent validity and proved to be invariant regardless of the competitive level. These results suggest that the Spanish version of the STSTQ is a valid and reliable tool to assess socialization tactics in amateur and semi-professional team sports.

KEYWORDS

Group dynamics, socialization tactics, psychometric properties, questionnaire, team sports.

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INTRODUCTION

A large number of group dynamics can take place in sports teams, which may lead to better or worse team functioning (F. Leo, Sánchez-Miguel, Sánchez-Oliva, Amado, & García-Calvo, 2014). The beginning of the season, when the group is created and the first contacts among players occur, is a critical moment. Both in teams where the majority of players continue, as well as in those that receive new players, an integration process of new components into the group will happen, and such integration at the beginning of the season may be a determining aspect for the future team's collective work (Benson & Eys, 2017).

There is evidence from organizational psychology that a key point for group dynamics in working teams is the initial interactions between the newcomers and the existing group members (Fang, Duffy, & Shaw, 2011; Hackman, 2012; Kim & Moon, 2021; R. B. Kline, 2023). This fact also applies to the sports field, especially when the new players play in the same positions as some players that were already part of the team. In the majority of teams, there

are strong social bonds between group members that are sometimes difficult to break in order to admit new members (Benson & Eys, 2017); (Benson, Evans, & Eys, 2016). Furthermore, there are clearly defined roles from previous seasons and it seems difficult to integrate new people into new or existing roles ((Benson, Evans, et al., 2016); Benson, et al., 2014), or to accept certain roles when they expect to play a more important one within the team (Benson, Evans, et al., 2016; Benson, Eys, Surya, Dawson, & Schneider, 2013; Benson, Eys, & Irving, 2016; Benson, Hardy, & Eys, 2016). This situation may result in communication problems (Benson, Hardy, et al., 2016), generate role ambiguity (Eys, Carron, Beauchamp, & Bray, 2003) or lead to social exclusion (Price & Van Vugt, 2014). Consequently, an adaptation period for these new players may be paramount to achieving appropriate socialization among players and better team functioning in the future (Benson, Evans, et al., 2016). Nevertheless, there are hardly any measuring instruments to evaluate this socialization period. To our knowledge, the Sport Team Socialization Tactics Questionnaire (STSTQ) (Benson & Eys, 2017) is the only existing measuring scale so far. This scale has been only developed in English, which limits its use to English-speaking participants. This work intended to validate this scale in Spanish, so that it can be applied by sports psychologists and coaches in Spanish-speaking contexts.

1. Socialization Theory

The organizational socialization theory provides a framework to understand the integration process of newcomers into sports teams and the associated consequences from various approaches. Socialization is a process through which newcomers learn about the culture, rules and expectations related to membership in a particular group (John Van Maanen, 1978). The term socialization tactics in sports refers to the ways in which the experiences of an individual in transition from one role to another are structured for him by others in the organization (J VAN MAANEN, 1979).

In this regard, both coaches and players are key agents to make this a successful process (Benson, Evans, et al., 2016; Benson et al., 2013). On one hand, the coach is responsible for conveying the role that every player will play within the team and has the mission to ensure that all roles are accepted by all team members (Benson, Evans, et al., 2016). Therefore, establishing strategies to assemble the roles of new and existing players may be relevant for the team's functioning.

On the other hand, players are the people who may have the greatest influence on the newcomers to the team, and who can provide them with the greatest help to transition to their new role within the team (Benson, Evans, et al., 2016). Not establishing socialization strategies may generate uncertainty and stress in the newcomers, as they may adopt a secondary social role and they may not assimilate the various statuses that already exist in the group (Benson, Evans, et al., 2016; Benson & Eys, 2017; Ellis et al., 2015). Considering these aspects altogether, it is likely that the strategies used by sports teams to manage the newcomers' adjustment experiences are associated with individual and collective outcomes (Benson, Evans, et al., 2016)).

1.1. Socialization Tactics Measuring Scales

To our knowledge, the instruments designed to examine socialization tactics in working groups are scarce. Within the organizational field, there is only one scale designed by (Jones, 1986). It consists of six pairs of opposing factors (collective vs. individual tactics; formal vs. informal tactics; sequential vs. random tactics; fixed vs. variable tactics; investiture vs. divestiture tactics; serial vs. disjunctive tactics). Nonetheless, despite having been used in numerous studies, the factor structure has been controversial, and some authors have used the scale with three or even just one factor.

The same situation is happening in the sports context. The only instrument that has been created to evaluate the newcomers' socialization process is the one developed by (Benson & Eys, 2017). These authors tested a questionnaire in the sports context starting from four premises from the organizational field. They conducted four studies within the same research (interviews with eight coaches, a revision by a panel of six experts, two cross-sectional studies in team sports and a two-measure longitudinal study) with the purpose to assess the STSTQ's validity and reliability.

The final version of the instrument consisted of 15 items organized in three main factors: a) coach-initiated role communication tactics, or to what extent the technical staff provides the newcomers with specific information on the role they will be playing; b) serial socialization tactics, or to what extent the older players share advice regarding the newcomers' roles and responsibilities in the team; and c) social inclusionary tactics, which refers to the organization of social events to help newcomers integrate into the group. To the authors' knowledge, this tool has not been applied in other studies to examine its relationship with other group processes. Moreover, this questionnaire has not been validated for other contexts or languages.

1.2. Socialization Tactics Consequences

In organizational contexts, appropriately structured socialization tactics are associated with a number of benefits, including role clarity (Lapointe, Vandenberghe, & Boudrias, 2014), cooperative goal interdependence (Lu & Tjosvold, 2013) and stronger social networks across the whole organization (Fang et al., 2011).

Since players need to cooperatively work to achieve common goals, the ability to integrate newcomers quickly and efficiently is probably a precursor to a series of positive consequences, like improved role perception, enhanced group cohesion and a greater commitment of group members (Benson, Evans, et al., 2016; Benson & Eys, 2017; Hackman, 2012; López-Gajardo, Ramírez-Bravo, Díaz-García, Tapia-Serrano, & Leo, 2022). As such, conducting systematic research on the socialization tactics applied in sports teams has multiple implications for the study of group dynamics in sports (Chamberlain, Hall, & Benson, 2021; F. Edson, y Leo, F. M., 2021; F. Y. Edson, 2021; F. M. Leo et al., 2020).

1.3. AIMS

The aim of this research was to validate the Sport Team Socialization Tactics Questionnaire for Spanish (Benson & Eys, 2017). To our knowledge, there is no instrument in Spanish to examine this matter and, as mentioned above, it may turn very relevant in the optimization of sports team functioning (Benson, Surya, & Eys, 2014). Therefore, the purpose of the study was to analyze the psychometric properties of the original instrument's factor structure (Benson & Eys, 2017) in Spanish. In this regard, we expect the instrument to present adequate factor validity, with three first-order correlated factors, like the original instrument (*hypothesis 1*). Besides, we expect that the instrument's factors present adequate reliability (*hypothesis 2*).

In this line, the discriminating capacity between instrument factors will try to be confirmed. To do so, the correlations between factors will be analyzed. They are expected to be significant, positive and moderate (*hypothesis 3*), according to Kline's postulates 2005 (R. Kline, 2005). In keeping with this, nomological validity will also try to be confirmed. To do so, firstly, team cohesion will be used, which has been closely related to new players' adjustment (Benson & Eys, 2017). Secondly, the negative variable team conflict (Paradis, Carron, & Martin, 2014) will be used, which is the opposite of cohesion and will allow for analysis of how the instrument factors show upon positive and negative consequences of the newcomer adjustment instrument. In this regard, a positive relationship is expected between new-player adjustment factors and cohesion factors, while a negative relationship is expected between new-player adjustment factors and team conflict factors (*hypothesis 4*). Ç

Furthermore, some instruments have only been validated in very specific contexts. Therefore, our aim was to analyze the instrument's behavior in an amateur, semi-professional context, since different outcomes have been obtained for some psychological variables depending on the context. Moreover, the original instrument's authors highlighted the need for analyzing the instrument's validity in different competitive contexts (Benson & Eys, 2017). With regard to this, it was hypothesized that the new-player adjustment instrument would remain invariant regardless of the team's competitive level (*hypothesis 5*).

2. MATERIAL AND METHOD

2.1. DESIGN

According to the classification system proposed by (Ato, López-García, & Benavente, 2013), the present research applied the instrumental methodology, since the aim was to adapt and validate a scale.

2.2. PARTICIPANTS

The participants were 437 football players between 15 and 39 years old ($M = 21.90$; $SD = 5.67$), from which 385 were male ($M = 21.97$; $SD = 5.63$) and 52 were female ($M = 21.40$; $SD = 6.03$). The athletes were either amateur players

from regional leagues ($n = 279$) or semi-professional players from Spanish national leagues ($n = 158$). The average time they had belonged to their teams was 2.96 years ($SD = 2.02$). Besides, 159 players were spending their first season in their current teams.

2.3. INSTRUMENTS

Sport Team Socialization Tactics. An adaptation to Spanish of the instrument developed by (Benson & Eys, 2017) was used to assess the newcomer socialization process. This scale started with the introductory sentence: "When new players join this team, ...", followed by 13 items divided into three factors: coach-initiated role communication tactics (seven items; e.g., "the coaching staff ensures there are learning opportunities designed to give newcomers an understanding of their task responsibilities"), serial socialization tactics (three items; e.g., "More experienced teammates are there to assist in helping them improve their skill-set"), and social inclusionary tactics (three items; e.g., "They all participate in similar social activities together"). The items were rated on a nine-point scale, ranging from totally disagree (1) to totally agree (9).

Group Cohesion. The 12-item scale designed by (Marcos, González-Ponce, Sánchez-Oliva, Pulido, & García-Calvo, 2015) was used to assess team cohesion. This instrument is composed of four sub-scales: group integration-task (GI-T, three items; e.g., "All the players take responsibility for a poor team result"), group integration-social (GI-S, three items; e.g., "The players of this team sometimes like to get together after the season is over"), individual attractions to group-task (ATG-T, three items; e.g., "I can do my best on this team"), and individual attractions to group-social (ATG-S, three items; e.g., "My teammates make up one of the most important social groups I belong to"). The items were rated on a nine-point scale, ranging from *totally disagree* (1) to *totally agree* (9). The confirmatory factor analysis (CFA) revealed an adequate model fitting ($\chi^2 = 98,661$, $df = 48$, $p < 0.001$, $CFI = 0.956$, $TLI = 0.939$ and $RMSEA = 0.049$ [95% CI: 0.035, 0.053]). Cronbach's alpha values for internal consistency were 0.72 for GI-T, 0.70 for GI-S, 0.81 for ATG-T and 0.72 for ATG-S; while omega coefficient values were 0.74 for GI-T, 0.72 for GI-S, 0.82 for ATG-T and 0.73 for ATG-S.

Team Conflict. The scale developed by (Jehn, 1995) and adapted to sports by (F. M. Leo, González-Ponce, Sánchez-Miguel, Ivarsson, & García-Calvo, 2015) was used to assess team conflict. The instrument comprises six items grouped into two factors: task conflict (three items; e.g., "How frequently were there conflicts about ideas on your team?") and social conflict (three items; e.g., "How frequently was there emotional conflict among members on your team?"). The items were rated on a seven-point scale, ranging from *never* (1) to *always* (7). The CFA yielded an acceptable model fit ($\chi^2 = 15,263$, $df = 13$, $p = 0.291$, $CFI = 0.997$, $TLI = 0.996$, $RMSEA = 0.020$ [95% CI: 0.001, 0.054]). Cronbach's alpha values for internal consistency were 0.83 for social conflict and 0.74 for task conflict, while omega coefficient values were 0.80 for social conflict and 0.71 for task conflict.

3. PROCEDURE

The research project was initially approved by the Ethics Committee of the University of Extremadura (239/2019). All participants were handled according to the ethical guidelines published by the (Association, 2010) American Psychological Association (2010) regarding consent and response confidentiality and anonymity. The adaptation of the Sport Team Socialization Tactics instrument followed the methodology proposed by (Muniz, Elosua, & Hambleton, 2013). Thus, firstly, five sports psychology experts adapted the questionnaire items to Spanish. Secondly, a pilot study was conducted with semi-professional and amateur football players ($n = 36$) with the aim to verify the correct item comprehension, as well as the estimated completion duration. The instrument adaptation process outcomes provided evidence of validity based on the test content. Subsequently, the data collection was completed with the purpose to verify the instrument's factor validity. The principal investigator contacted all the sports clubs to inform them about the study aims and procedures, in case they were finally involved in the research. Similarly, the players of the participating clubs were also informed about the study aims and procedures and were reminded that their participation was completely voluntary and their responses would remain confidential. Underage participants were requested approval from their legal guardians through an informed consent form.

4. DATA ANALYSIS

The factor structure of the newcomer socialization inventory was validated through CFA using Mplus 7.3 software (Muthén, (1998-2019)). Firstly, to analyze how well the model used fit the data, various fit measures were calculated: chi-squared (χ^2), degrees of freedom (df), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and Root Mean Square Error of Approximation ($RMSEA$). Thus, CFI and TLI values higher than .90 are acceptable, while higher than .95 are considered excellent (Hu & Bentler, 1999). Besides, the model fit is considered to be good when $RMSEA$ is lower than .06 (Cole & Maxwell, 1985). Secondly, internal consistency was assessed through Cronbach's alpha and omega coefficient. Thirdly, a bivariate correlation analysis was conducted on the instrument factors to assess discriminant validity. Fourthly, the variables team cohesion and team conflict were used to determine nomological validity. Lastly, an invariance analysis was performed based on the athletes' competitive level, applying the following model sequence: configural invariance, metric invariance, strong invariance and strict invariance. The nested models were compared based on the changes in the fit indices, where increases in CFI or TLI smaller than 0.010, or increases in $RMSEA$ smaller than 0.015 were considered evidence of factorial invariance (Cheung & Rensvold, 2002).

5. RESULTS

5.1. FACTOR STRUCTURE

Confirmatory Factor Analysis (CFA) was applied using the maximum likelihood estimation method with a bootstrapping procedure, ensuring that all

estimated results were robust and, therefore, not affected by the lack of multivariate normality (Byrne, 2001). This analysis was based on the original model developed by (Benson & Eys, 2017), with a three-factor structure addressing coach-initiated role communication tactics (seven items), serial socialization tactics (three items) and social inclusionary tactics (three items). The factor structure presented adequate fit index values: $\chi^2 = 149,760$; $df = 62.80$, $p < 0.001$, $CFI = 0.943$, $TLI = 0.920$ and $RMSEA = 0.060$ (95% CI: 0.042, 0.060). Furthermore, as shown in Figure 1, the factor loading of every item within their factor presented adequate values for coach-initiated role communication tactics ($\lambda = 0.620$ - 0.793), serial socialization tactics ($\lambda = 0.805$ - 0.835) and social inclusionary tactics ($\lambda = 0.605$ - 0.790).

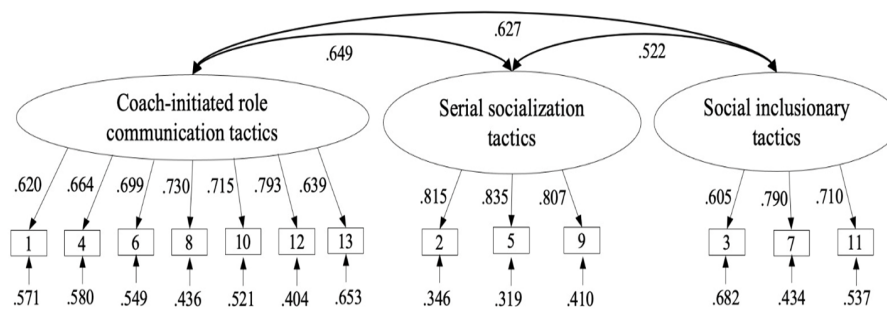


Figure 1. Confirmatory Factor Analysis.

Descriptive Statistics and Internal Consistency. Table 1 contains the descriptive statistics for the newcomer adjustment factors, and it can be observed that the means were above the central values in all factors. Likewise, Table 1 shows the internal consistency values for all factors. Adequate values were obtained for coach-initiated role communication tactics ($\alpha = .87$; $\omega = .86$) and serial socialization tactics ($\alpha = .86$; $\omega = .76$) (Nunnally). By contrast, despite omega coefficient value for social inclusionary tactics being acceptable ($\omega = .70$), Cronbach's alpha was below the expected value ($\alpha = .69$). Nevertheless, although this value revealed a relatively low internal consistency, it was very close to the reference value. Besides, (Lowenthal, 2001) recommended that values above .60 should be considered adequate if there is proper evidence of validity, strong theoretical support for the scale and the number of items is lower than 10 (three, in this case). Since the current scale met all these criteria, we considered the internal consistency to be acceptable.

Discriminant Validity and Nomological Validity. Regarding discriminant validity, Table 1 shows the measuring instrument's between-factor correlations. Significant, positive, moderate correlations were found between coach-initiated role communication tactics and serial socialization tactics ($r = .59$), between coach-initiated role communication tactics and social inclusionary tactics ($r = 0.47$), and between serial socialization tactics and social inclusionary tactics ($r = 0.43$). As mentioned above, the team cohesion and team conflict variables (Paradis et al., 2014) were used to confirm nomological validity, by examining the instrument's behavior with positive and negative resulting variables. In this regard, the three instrument factors, coach-initiated role communication tactics, serial socialization tactics and social inclusionary tactics, yielded significant positive correlations with the four cohesion factors ($r = 0.15 - 0.48$). Only coach-

initiated role communication tactics and GI-S were not significantly associated. By contrast, significant negative relationships were obtained between serial socialization tactics and team conflict ($r = -0.20 - -0.32$).

Table 1. Descriptive statistics, internal consistency, discriminant validity and nomological validity

	<i>M</i>	<i>SD</i>	α	1	2	3	4	5	6	7	8	9
1. Coach-initiated role communication tactics	7.29	1.29	0.87	-			0.07	0.46*	0.33*	0.48*	-0.20*	-0.32*
2. Serial socialization tactics	7.46	1.39	0.86	0.59*	-		0.15*	0.46*	0.40*	0.36*	-0.25*	-0.20*
3. Social inclusionary tactics	7.59	1.34	0.69	0.47*	0.43*	-	0.31*	0.37*	0.45*	0.25*	-0.23*	-0.24*

Note. 4. GI-S; 5. GI-T; 6. ATG-S; 7. ATG-T; 8. Task conflict; 9. Social conflict. * $p < 0.05$, ** $p < 0.01$

Invariance by Competitive Level. Factor structure invariance by competitive level (amateur and semi-professional) was examined applying a multi-group analysis. This technique allowed us to confirm that the instrument designed worked similarly for all groups. Therefore, the potential differences between the non-restricted model (Model 1) and the nested models (invariance models) can be tested. Table 2 shows the fit indices for the models compared by competitive level in the invariance analysis (Adham et al., 2022).

Firstly, confirmatory factor models were estimated for every level, and optimal fit indices were obtained for both amateur and semi-professional groups. Likewise, the non-restricted model, as well as the three invariance models yielded a good model fit. Additionally, in agreement with (Cheung & Rensvold, 2002), the increases in CFI and TLI were smaller than 0.010 and, in agreement with Chen (2007), the increases in RMSEA were smaller than 0.015. This means that the STSTQ can be considered invariant regardless of the competitive level.

Table 2. Invariance analysis by competitive level

	χ^2	df	CFI	TLI	RMSEA	$\Delta\chi^2$	Δ CFI	Δ TLI	Δ RMSEA
Model 0. Semi-professional	91.611	62	0.974	0.967	0.039	-	-	-	-
Model 0. Amateur	103.306	62	0.949	0.936	0.050	-	-	-	-
Model 1. Configural invariance	201.081	127	0.957	0.947	0.047	-	-	-	-
Model 2. Metric invariance	221.251	140	0.958	0.953	0.044	20,170	0.001	0.006	-0.003
Model 3. Strong invariance	249.017	153	0.951	0.950	0.046	27,766	0.007	0.003	0.002
Model 4. Strict invariance	249.017	153	0.951	0.950	0.046	0.000	0.000	0.000	0.000

6. DISCUSSION

The aim of this study was to adapt to Spanish and to validate the Sport Team Socialization Tactics Questionnaire (Benson & Eys, 2017) with amateur and semi-professional football players. The results revealed that the scale presented adequate factor validity, internal consistency, discriminant validity and nomological validity values, and it also proved to be invariant regardless of the competitive level. Therefore, the Spanish version of the STSTQ seems to be a valid and reliable scale for socialization tactics analysis in sports teams.

Firstly, the scale's factor validity was examined, trying to test the same factor structure as the original instrument, with three first-order correlated factors (Benson & Eys, 2017). Similar values to the original instrument were obtained, the fit indices (CFI and $TLI < 0.90$; $RMSEA < 0.06$) and the factor loading of every item within their factor ($\lambda > 0.60$) proving adequate in both cases. Consequently, study *hypothesis 1* can be confirmed, which predicted adequate factor validity with three first-order correlated factors.

Secondly, the scale's reliability was assessed. Internal consistency values were high for two of the instrument factors ($\alpha_{coach} = 0.87$ and $\alpha_{serial} = 0.86$) and similar ($\alpha_{coach} = 0.89$ and $\alpha_{serial} = 0.83$) to those of the scale developed by Benson and Eys 2017. By contrast, they were below the expected values for social inclusionary tactics ($\alpha = 0.69$; $\omega = 0.70$) and especially low compared to the previous study ($\alpha_{inclusion} = 0.81$). This revealed relatively low internal consistency for the Spanish version, but still very close to the values that are considered acceptable ($\alpha > 0.70$; Nunnally & Bernstein, 1994). In addition, the scale met the three recommendations proposed by (Lowenthal, 2001) in the case of moderate-reliability factors ($\alpha > 0.60$): a) a strong theoretical framework supports the questionnaire, b) there is adequate instrument validity, and c) the number of items per factor is small (three, in this case). Therefore, *hypothesis 2* can be confirmed, which stated that the questionnaire would present adequate internal consistency.

Thirdly, the discriminating capacity between instrument factors was analyzed. In this regard, significant, positive, moderate relationships ranging between 0.43 and 0.59 were found between factors, in keeping with the instrument's English version ($r = 0.30 - 0.56$; (Benson & Eys, 2017). Therefore, considering that this type of validity is present when the variables that measure the different constructions are not too closely related (R. Kline, 2005), *hypothesis 3* can be confirmed, which predicted the scale's adequate discriminating validity.

Fourthly, the scale's nomological validity was tested using team cohesion and team conflict, variables that have shown an association with newcomer adjustment in various research fields (Benson & Eys, 2017; Saks & Ashforth, 1997). The conceptual linkages between athletes' perceptions of sports team socialization tactics and various psychological variables further support the STSTQ's construct validity. In accordance with theory, the STSTQ's dimensions presented differential relationships with the perceptions of team cohesion and team conflict. As hypothesized, newcomer adjustment factors were positively related to team cohesion factors and negatively related to team conflict factors,

confirming *hypothesis 4*. Similar results were reported by (Benson & Eys, 2017) in the sports context.

Fifthly, given the need for using instruments in the specific contexts where research will be conducted (Brawley & Carron, 2003; F. M. Leo et al., 2015), we aimed to analyze how the scale would behave in amateur and semi-professional settings, since different results have been previously found in some psychological variables depending on the context (Carron, Colman, Wheeler, & Stevens, 2002). In this regard, the scale's invariance was tested by competitive level, yielding adequate fit index values for the non-restricted model and the three invariance models in amateur and semi-professional players independently (CFI and $TLI < 0.90$; $RMSEA < 0.06$). Furthermore, the differences between the two non-restricted models and the three invariance models were lower than 0.01 for CFI, TLI and RMSEA. Similarly, (Benson & Eys, 2017) found that the instrument was invariant regardless of sex, the number of years in the team and being either a starting or a substitute player. In light of all the above, *hypothesis 5* can be confirmed and the STSTQ can be considered invariant regardless of the competitive level.

7. LIMITATIONS AND FUTURE RESEARCH LINES

This research presents a number of limitations that must be borne in mind when analyzing the results obtained. One study limitation is that player's experience, the amount of time belonging to the group, or whether the players were starting or substitute players were not taken into account, which could affect the questionnaire completion (Benson & Eys, 2017). Consequently, the present study cannot confirm the STSTQ's validity as regards the different sexes, time belonging to the group or player status. Further studies are needed to confirm the questionnaire's validity in different sports and considering the team characteristics. A second limitation is that the STSTQ was validated with a limited number of teams, hindering the ability to verify multi-level, individual and group validity.

That is, it was measured through individual player perception and at an individual analysis level. The use of fixed-effect models entails not taking into account the between-team variability. Therefore, including a larger number of teams would allow for individual- and group-level analyses, which would give researchers the opportunity to examine whether the consequences of the socialization tactics differ based on the contextual variables (Benson & Eys, 2017). Another aspect to bear in mind is that socialization tactics do not work in isolation from other factors during the newcomer adjustment process. The analysis of the role of socialization tactics together with other factors that are relevant for newcomer adjustment would provide a better understanding of the socialization processes within sports teams. A new and valuable research line could address the background (e.g. player characteristics, group history, coach competencies) and consequences of these socialization techniques (e.g. cohesion, role ambiguity, collective effectiveness, performance, etc.). Understanding the socialization processes that occur within a sports team can help manage such processes in a way that benefits both individual and collective processes.

8. CONCLUSIONS

The present study provided evidence that supports the use of the STSTQ in Spanish as a valid and reliable instrument to measure socialization tactics in team sports contexts. Besides, it contributed to gaining knowledge on the STSTQ's factor structure. From a practical perspective, sports coaches and psychologists can use this tool to assess socialization tactics in sports teams. Since the newcomers need to adapt to their new team and the team staff and players need to welcome these new players, knowing the extent of the socialization process will help to understand how the new player adjustment process is developing.

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Appendix

Sport Team Socialization Tactics Questionnaire (STSTQ)

Cuando los nuevos jugadores se unen a este equipo. . . .

1. El entrenador les da instrucciones personales cuando llegan sobre cómo prepararse para la temporada.
2. Los/as compañeros/as de equipo más experimentados les ayudan a mejorar su conjunto de habilidades.
3. Participan juntos/as en las mismas actividades sociales que el resto.
4. El cuerpo técnico garantiza en los entrenamientos que los recién llegados comprendan las responsabilidades de sus tareas.
5. Los miembros del grupo más experimentados dan consejos sobre cómo mejorar sus habilidades.
6. Los entrenadores indican claramente lo que los recién llegados deben lograr para adquirir un papel más destacado en situaciones competitivas.
7. Los eventos sociales grupales están programados para que todos los nuevos miembros participen.
8. El cuerpo técnico les da el tiempo necesario para lograr responsabilidades más importantes en el grupo.
9. Los jugadores del equipo más experimentados hacen todo lo posible para asegurarse de que los recién llegados comprendan sus responsabilidades.
10. Se les comunica claramente el tiempo necesario para lograr más responsabilidades en el grupo.
11. Se programan eventos sociales orientadas a todo el equipo.
12. Nuestro entrenador les informa paso a paso de cómo adquirir sus responsabilidades.
13. La adquisición de nuevas responsabilidades en las tareas ocurre poco a poco.

Note. Coach-initiated role communication tactics: 1, 4, 6, 8, 10, 12, 13; Serial socialization tactics: 2, 5, 9; Social inclusionary tactics: 3, 7, 11.