



Role Conflict and Role Ambiguity Impact on Collective Efficacy – towards Team Cohesion: A China Youth Football Team Analysis

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	ABSTRACT
<p>2016 Research Leap/Inovatus Services Ltd. All rights reserved.</p> <p>DOI: 10.18775/jibrm.1849-8558.2015.35.3005 URL: http://dx.doi.org/10.18775/jibrm.1849-8558.2015.35.3005</p>	<p>In this empirical study we provide an explanation of team cohesion as a result of collective efficacy according to social cognitive theory. We measure the levels of collective efficacy, team cohesion, role ambiguity and role conflict on the sample of Chinese youth football teams, and indicate predictive values of each factor, thus contributing to the sports psychology field, regarding football players development. According to the results of our study, team cohesion and collective efficacy are mutually correlated. In that respect, team cohesion is regarded as an outcome of collective efficacy. Role ambiguity was found to be significant in affecting the players' perception of efficacy but in positive way. However, that contradicts to our theoretical assumption, stating that role ambiguity has a negative impact on collective efficacy. Individual perceptions of the players' regarding their role do not seem to change the collective perception, taking into account ambiguity factor. Role conflict encouraged a negative prediction of collective efficacy at an interpersonal level.</p>
<p>Keywords: Collective-Efficacy, Team Cohesion, Role Conflict, Team Conflict, Football Teams</p>	

1. Introduction

George et Feltz (1995) point out that although the majority of sports are group games, sport psychology has mostly concentrated on the performance and enthusiasm of individuals rather than the whole team. But individual efforts do not seem to be the only determinant of the overall performance of a sport team. It is rather a complicated interplay between interpersonal and situational factors, which made sport psychologists acknowledge the influence of psychosocial factors on a team's performance. That influence had been investigated by some researchers in recent years.

This topic is chosen due to the immense significance of collective efficacy in the individual development of football players, as well as team development and higher team performance. Many countries such as China have struggled with the development of football players, whereas in other individual sports they have great success. This study is of great significance considering that it pays more attention to psychological aspects of football and team development. Many of the major works published in this field mainly focus on the training and physical aspect.

In this empirical study we intend to provide an explanation of team cohesion as a result of collective efficacy according to social cognitive theory. We will measure the levels of collective efficacy, team cohesion, role ambiguity and role conflict in the studied sample, and indicate predictive values of each factor, thus contributing to the sports psychology field, regarding football players development.

2. Literature Review

2.1. Collective Efficacy and Team Cohesion

The importance of collective efficacy and cohesion to guarantee fruitful collective results has been recognized by recent studies in the field of sport psychology. (e.g., Carron et al., 2002; Heuze et al., 2006; Myers et al., 2004). According to Bandura (1986), collective efficacy is just a continuation of self-efficacy. Collective efficacy beliefs reflect on the team's effort and performance, especially for tasks requiring interaction between the members of the team. Therefore, he proposed that collective efficacy includes how individuals understand the team's performance skills (Bandura, 1990).

Bandura, (1997) comments that collective efficacy has often been observed in successful teams; and its impacts on the team's stamina and collective effort in different situations has been

noted. That makes it a key constituent in group sports. Some psychologists have proved that influence (e.g., Feltz & Lirgg, 1998; Greenlees et al., 1999; Hodges & Carron, 1992; Watson et al., 2001). Zaccaro et al., (1995) demonstrate that skills of coordination, shared conceptions, idiosyncrasies of different circumstances requirements, and combined means of task success all make up collective efficacy. The presence of these factors make up collective efficacy. According to studies and theory regarding precedents of self-efficacy, it is essential to determine the precedents and connections of collective efficacy as it is an important constituent of collective performance. (Bandura, 1997), Some suggest (see for example Feltz & Lirgg, 2002) that the precedents of collective efficacy could be the same six sources of self-efficacy, which are: verbal persuasion, the size of a team, prior performance, indirect experiences, leadership manner, and collective cohesion. Group cohesion is what makes unity, bond, and coordination between members stronger (Ronayne, 2004). Consequently, the bond and unity among team members contribute positively in the shared perceptions about their team's efficiency. The more cohesion among members, the more shared beliefs. Zaccaro et al., (1995) believe that group cohesion correlates with collective efficacy and also think that collective efficacy leads to group cohesion. Particularly, cohesion among members of a team increases when there are shared beliefs about their team's efficiency. Moreover, the more collective efficacy the more cohesion. Based on the previous concepts, cohesion was described by some social psychologists as a precedent of collective efficacy (Bandura, 1997), "whereas others considered it both an antecedent and a consequence of collective efficacy" (Zaccaro et al., 1995). (Bandura, (1997); Zaccaro et al., (1995) indicate that, as a precedent, there are certain positive shifts correlate with cohesion, such as better accepting for group rules, norms, assigned roles, and criteria, and stronger resistance of disturbance. These positive changes increase the performance capacity of the team and boost the collective efficacy. "As a consequence, stronger perceptions of collective efficacy should increase the desirability of the group and therefore group cohesion" (Zaccaro et al., 1995). The players' perception of efficacy can change over time, in terms of the fulfillment of their goals or failure in meeting expectations (Leo et al., 2012; Fransen et al., 2015). Even so, the variables mentioned above included in the measurement model can justify these fluctuations.

Some researchers have been made following these suggestions about the relationship between these two concepts in group sports. Paskevitch et al. (1999) have examined this relationship in university and club volleyball teams. Another study was made on rugby-union teams by Kozub & McDonnell (2000) and the findings of both studies demonstrate the positive relationship between duty cohesion and collective efficacy. Kozub & McDonnell have also noted that the social element of cohesion does not have a big influence on collective efficacy. The results of two recent studies show a slight difference. In

agreement with Kozub and McDonnell's (2000) results, Heuze et al. (2006) found that there is a positive correlation between duty cohesion conception and collective efficacy. But they also found that social aspect of cohesion is positively related with collective efficacy. Ronayne (2004) also found at the early season, especially at the late season mensuration, that two aspects of group cohesion (duty and social cohesion) are related significantly with collective efficacy.

2.2. Role Ambiguity and Role Conflict

The concepts of cohesion, group conflict, ambiguity, role conflict have been described in all these precedents as dynamic, so they are perceived as changing over time (Bandura, 1997; Carron & Eys, 2012; Paradis et al., 2014). Accordingly, the concepts of team members concerning expectations of group efficacy can also vary over time. In fact, the suggestion that the collective efficacy decreases over the season is supported by some studies (Heuz et al., 2006; Leo, Sanchez-Miguel, Sanchez-Oliva, Amado, & García-Calvo, 2012). Therefore, to understand the way these efficacy expectations can develop, variation of collective efficacy need to be examined over time. That can also reveal if the precedents relate to these variations, in comparison to past cross-sectional studies.

As being prospectively important for explaining collective efficacy and group performance, different elements have been determined through a detailed and critical analysis of the literature. The current relationships were drawn from past studies and researches, and the theory needs further studying. Lastly, the completed and reviewed model will be experimented on a sample of football teams.

The variable of collective efficacy and cohesion were chosen together with the mentor and due to its significance to team performance. The performance cohesion relationship has been well documented in existing research whereas collective efficacy-cohesion requires more review and validation.

Both of them have a positive impact on team performance in a number of studies, which together with theoretical support suggests that a direct relationship between efficacy and cohesion exists.

The hypothesized relationships in the study are:

- Hypothesis 1 Collective-efficacy has a positive impact on team cohesion on the sample of young football players;
- Hypothesis 2 Role ambiguity has a negative impact on collective efficacy;
- Hypothesis 3 Role conflict has a negative impact on collective efficacy;
- Hypothesis 4 Collective efficacy is a mediator between conflicts, ambiguity and cohesion.

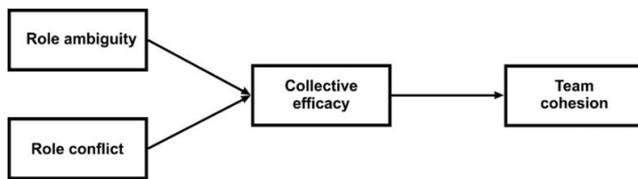


Figure 1: Team Cohesion Research Model

3. Research Methodology

As for research approach, the method of deduction was utilized as follows. Firstly, all the theory relevant to team cohesion and collective efficiency as well as their predictors was sorted and studied. Secondly, the relationships in the form of theoretical assumption were deduced from the previous studies and theory found. Thirdly, it was important to find the appropriate and reliable method of measurement for the chosen variables. Later, when the measurements are confirmed, the operational step was executed in form of data collection and further establishing the relationship between variables. As it can be already seen from abovementioned, the purpose of the study is to explain the relationship between collective efficacy and team cohesion, to establish the causal connection between them and compare the variables in different countries.

The Youth Sport Environment Questionnaire (YSEQ; Eys et al., 2009) evaluated Individual understanding of group cohesion, a cohesion questionnaire designed specifically for individuals aged 15 -19 years. Participants rated the level to which they confirmed with each statement on a 9-point Likert-type scale ranging from 1 (strongly disagree) to 9 (strongly agree). Higher scores depict greater perceptions of group cohesion.

To examine role ambiguity among young sportsmen, a 7-item scale adapted from the instrument developed by Beauchamp et al. (2001) was used. To assess role conflict, we used scale adapted from the instrument developed by Beauchamp and Bray (2001). Examples of role conflict include "I am sometimes provided with conflicting information of what my role is". To measure the beliefs of individual towards his/her groups' capacity Collective Efficacy Questionnaire (CEQ) was used (Riggs et al., 1994; Feltz & Lirgg, 1998).

To dissolve the issue, a complex of different methodological approaches, methods and methods of data collection and processing were used. The complex of diagnostic methods included: 1) original author's methods developed by the author, calculating the conjugacy of factors for collective efficacy. 2) a modified method for cohesion. 3) Mathematical processing included the analysis of the significance of differences using qualitative and quantitative criteria, using correlation, qualitative-quantitative factor analysis. Data processing was carried out using the SPSS software license package.

The research of young footballers in China is given that there is a restricted quantity of studies on this relationship between this age group can be assessed as a modifying factor of forming

efficacy-cohesion relationship, as it shows experience which is demanded for these relationships to form. The impact of age as a modifying factor is observed when compared to other studies performed on samples of adults and other age groups.

4. Data Analysis and Interpretation

4.1 Descriptive Statistics of Chinese Sample

Descriptive statistics of the Chinese sample is presented by several indicators. They are grouped in table 1 with 232 as the total number of observations Starting with extremes, the minimum value among four variables is 1,00 for role conflict. It is followed by team cohesion and role ambiguity with quite close in the meaning minimum value – 1,28. Collective efficiency has the highest minimum and maximum values among them – 1,6 and 7,00 accordingly. Role ambiguity also shares the top position in terms of maximum values. However, team cohesion and role conflict have slightly different values regarding maximum statistics – 6,72 and 6,9. The mean values vary from 3,9 till 4,8 with standard deviation 1,2 – 1,45.

Team cohesion has several peaks and slightly prolonged to the left. Collective efficiency has a quite similar histogram. Unlike two aforementioned variables, the tail of the histogram for role conflict is prolonged to the right. As for role ambiguity, the data for this variable is located on the histogram almost symmetrical. In addition, steam and leaf plots are also provided for each of the four variables. Normal distribution line is located in each QQ plot. The data for all the variables are located along this line, proving normal distribution with only slight deviations.

Skewness and kurtosis are other variables of descriptive statistics. Along with the value of these coefficients, the sign of the value is of high importance. Thus, skewness is the measurement that indicates how symmetrical the data are. The perfect skewness always tends to zero, while deviations from zero show that the data are not symmetrical and are prolonged to the left or right depending on the sign of the coefficient. In our sample, the majority of variables have negative skewness, except role conflict. That means that the left tail of the distribution is longer than the right one. As it was already mentioned, role conflict has positive skewness. Moreover, its skewness is close to zero - of 0.16 which indicates that its data distribution is almost symmetrical. Nonetheless, it is important to mention, that all values of skewness are between the range - 0.5 and 0.5, which means that all the data are distributed fairly symmetrical.

As for kurtosis, some researchers believe that it is a measurement of flatness of the distribution.

Here, all the variables have negative kurtosis, which means that is less than 0. The coefficients vary from 0,6 to 1,1. Based on this information, it is clear that the data are quite platykurtic.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error	Statistic	Std. Error
team_cohesion	232	1,28	6,72	4,3807	,09338	1,42240	-,361	,160	-1,048	,318
coll_effic	232	1,60	7,00	4,8386	,09491	1,44563	-,378	,160	-1,131	,318
role_conf	232	1,00	6,90	3,8772	,09523	1,45052	,163	,160	-1,015	,318
role_ambg	232	1,29	7,00	4,4366	,07861	1,19731	-,286	,160	-,574	,318
Valid N (listwise)	232									

4.2 Normality Test

The results of the normality test are presented in the table below. It consists of two parts or two test – Kolmogorov Smirnov and Sharpiro – Wilk. The main element in both of these tests is the level of significance.

Table 2: Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
team_cohesion	,124	232	,000	,945	232	,000
coll_effic	,112	232	,000	,932	232	,000
role_conf	,090	232	,000	,967	232	,000
role_ambg	,066	232	,015	,980	232	,002

a. Lilliefors Significance Correction

The acceptable should be less than 0,05. Only this condition enables the researchers to reject a null hypothesis. In our case, the significance level in both of normality tests meets the requirement to reject the null hypothesis. In details, Kolmogorov-Smirnov test showed that p-value of team cohesion, collective efficiency and role conflict is less than 0,001, while for role ambiguity, probability level equals to 0,015. Sharpiro-Wilk test showed almost similar results, and the only exception is role ambiguity. In this case, a probability test is 0,002. Referring to these results, we can conclude that the data are normally distributed for all the variables.

4.3 T-Test

Another way to identify whether the data are normally distributed is through the help of T-Test. The table consists of different parts, where the degree of freedom represents the number of observations or our sample. In this case, it is equal to 231. The main component that we should pay particular attention is the level of significance which is below 0.001. Based on this, we can conclude that the population means are different. T-values varies from 40,71 for role conflict to 56,44 for role ambiguity. Meanwhile, mean difference ranges from 3.88 for role conflict to 4,84 for collective efficiency.

Table 3: One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
team_cohesion	46,911	231	,000	4,38075	4,1968	4,5647
coll_effic	50,980	231	,000	4,83858	4,6516	5,0256
role_conf	40,713	231	,000	3,87716	3,6895	4,0648
role_ambg	56,440	231	,000	4,43658	4,2817	4,5915

4.4 Correlations

Before analysing the connection between variables, it is important to explore the character between the variables, whether the growth in one variable can lead the increase or vice versa the decrease in another variable. Moreover, it is necessary to bear in mind that all the relationships should be on the appropriate level of significance. The correlation table consists of several parts. The left side is filled with variables. Also, there are three lines for each of them. Pearson correlation shows the direction of relationships and the intensity. Positive sign illustrates a positive association, that means that the higher one variable the higher is another. The negative sign means the opposite. Sig. 2 tailed is the significance of correlations.

There are several options for this indicator, however, the main requirement is that it should be below 0.05. Another indicator to see the significance of the association is stars located right next to correlation indicators. N represents our sample. Upper right and lower left parts of the table are representing the same results. However, we will focus only on the upper right side. The analysis of team cohesion with other variables shows that it is positively associated with collective efficiency and role ambiguity. Their coefficients are 0,86 and 0,62 accordingly and with high indicators of the significance of less than 0,001.

Role conflict has a positive association with other variables. Nonetheless, only correlation with role ambiguity is of high significance and equals to 0.45.

The directions for the associations between collective efficiency and team cohesion and role ambiguity are also positive. The correlation for each of those relationships scores 0,86 and 0,64 accordingly.

Table 4: Correlations

		team_cohesion	coll_effic	role_conf	role_ambg
team_cohesion	Pearson Correlation	1	,862**	,106	,623**
	Sig. (2-tailed)		,000	,108	,000
	N	232	232	232	232
coll_effic	Pearson Correlation	,862**	1	,090	,641**
	Sig. (2-tailed)	,000		,170	,000
	N	232	232	232	232
role_conf	Pearson Correlation	,106	,090	1	,446**
	Sig. (2-tailed)	,108	,170		,000
	N	232	232	232	232
role_ambg	Pearson Correlation	,623**	,641**	,446**	1
	Sig. (2-tailed)	,000	,000	,000	
	N	232	232	232	232

** . Correlation is significant at the 0.01 level (2-tailed).

4.5 Regression

In order to establish the relationship between our variables, the regression analysis was executed. Firstly, the analysis of Chinese sample will be executed. The regression part was split into several steps. On the initial step, we analyzed the relationship between team cohesion and collective efficiency solely. Secondly, the relationship between collective efficacy and role conflict and role ambiguity. As the third step, the effect of variables – role conflict and role ambiguity on team cohesion was tested as well. And finally all the variables were put in one regression model to establish the impact of collective efficacy on the relationship between team cohesion and role conflict and role ambiguity.

4.6 Collective Efficiency – Team Cohesion

Here, we can see that 74% of the variance in team cohesion is predicted by collective efficiency. R-value is 0,86 and Adjusted R square is slightly less 0,74. The significance of F-test is high with the p-value less than 0,001. The regression table states that the relationship between collective efficiency and team cohesion is positive and significant, meaning that predictor positively impact on team cohesion (β -value=085 and p-value<0,001).

Table 5: Team Cohesion Coefficients and Model Summary ^a
(F-test=66,8 p> .001; R²= ,74)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,275	,166		1,658	,099
coll_effic	,849	,033	,862	25,837	,000

a. Dependent Variable: team_cohesion

4.7 Collective Efficacy and Role Conflict, Role Ambiguity

In order to confirm the theoretical assumption, stating that there is a negative impact of role ambiguity and role conflict on collective efficacy, the regression analysis was performed. According to the table below, the variance of collective efficacy is predicted by role ambiguity and role conflict only on 46%, where R is equal to 0.68 and Adjusted R is almost the same as variance value 0.45.

Table 6: Collective Efficacy Coefficients and Model

Summary

(F-test= 97,2; p= .001; R²= ,46)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1,763	,281		6,267	,000
role_conf	-,243	,054	-,244	-4,495	,000
role_ambg	,906	,066	,750	13,820	,000

a. Dependent Variable: Collective Efficacy

The results of multiple regression can be found on the table 4.20, which represents p-value of less than 0.001 for both of independent variables. That means that the relationship with collective efficacy are of high significance. Collective efficacy is negatively predicted by role conflict with β -value -0.24. However, interestingly that role ambiguity has a positive impact on collective efficacy.

4.8 Team Cohesion and Role Ambiguity, Role Conflict

In the third regression model, team cohesion was considered as the dependent variable, whereas the role ambiguity and role conflict as the independent ones.

Proceeding further, the relationship between the abovementioned variables should be examined by the help of regression analysis. Here it is clearly seen that R square is 0,43. That means that 43% of the variance of the dependent variable can be explained by the independent variable. While the adjusted R square is slightly less, the R coefficient is higher than the previous indicator. When role ambiguity and role conflict are taken as the predictors of team cohesion, the significance of F-test is less than 0,001.

R square is quite high, thus, we can consider the regression analysis more closely. The significance of role conflict as the predictor of the team cohesion is high, the p-value is below the point of 0,001. Moreover, beta coefficient is negative (-0.21). Given this, it is possible to conclude that role conflict has a negative impact on team cohesion. As for role ambiguity, it has an opposite effect on team cohesion. B coefficient 0,85 indicates that it positively predicts team cohesion and their relationships are significant.

Table 7: Team Cohesion Coefficients and Model Summary(F-test= 85; p= .001; R²= ,42)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
Constant	1,407	,285		4,933	,000
role_conf	-,211	,055	-,215	-3,840	,000
role_ambg	,854	,066	,719	12,857	,000

a. Dependent Variable: Team Cohesion

4.9 Collective Efficacy, Team Cohesion, Role Conflict and Role Ambiguity

In the final multiple regression model, we added another variable along with role ambiguity and role conflict – collective efficiency. The same as in the previous model, the impact on team cohesion was investigated. As it can be seen from the model summary, R square is 0,75, meaning that 75% of the variance in team cohesion is explained by three independent variables. Interestingly that introduction of collective efficiency increased that indicator almost twice.

Table 8: Team Cohesion Coefficients and Model Summary(F-test= 23.1; p= .001; R²= ,75)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	,058	,203		,287	,774
role_conf	-,025	,038	-,025	-,655	,513
role_ambg	,162	,059	,136	2,729	,007
coll_efficiency	,765	,044	,777	17,356	,000

a. Dependent Variable: team cohesion

When it comes to adjusted R square and R, they also increased their value. Thus, 0,75 and 0,89 accordingly. F-test has high significance and is below 0,001. Multiple regression itself is represented in the table above. As it can be seen, the significance level is acceptable only for role ambiguity and collective cohesion, as p-values are equal to 0,007 and 0,000 accordingly. Role ambiguity positively effects on team cohesion with beta value 0,16 and collective efficiency also positively predicts team cohesion. Their relationships are quite strong and significant with beta value 0,77 and p-value<0,001. The direction of the relationship between role conflict and team cohesion is negative, however as it was mentioned, the significance level is low to be accepted. Thus, the null hypothesis should be accepted.

5. Discussions

According to the results of our study, team cohesion and collective efficacy are mutually correlated. In that respect, team cohesion is regarded as an outcome of collective efficacy. When a team often talks about their capabilities, it is highly possible that their unity will develop as well. Many researchers were investigating the vice-versa relationship, where team cohesion is predicting the collective efficacy. Additionally, the cohesiveness is another element that increases when the sense of being useful in a team increases. Bandura portrayed the term cohesion as the outcome of the collective efficacy considering the previous approaches (1997). On the hand, other psychologists regard the term cohesion as the cause and effect of collective efficacy (Zaccaro et al., 1995).

Role ambiguity was found to be significant in affecting the players' perception of efficacy but in positive way. However, that contradicts to our theoretical assumption, stating that role ambiguity has a negative impact on collective efficacy. Individual perceptions of the players' regarding their role do not seem to change the collective perception, taking into account ambiguity factor. The reason for this may be the fact that role ambiguity is often associated with self-efficacy (Beauchamp, Bray, Fielding, & Eys, 2005; Eys & Carron, 2001). The confusion experienced by the players about their individual tasks positively influences their perception of team competence. In other words, a team member can keep his/her confidence in the group's performance while he/she needs to be informed more about the task individually. As stated in the introductory part, team sports need high interdependence between the group members, which makes impossible to explain perceptions within a team solely by analysing individual perception issues (Fransen et al., 2012; Bandura, 1997; Son et al., 2011). Heretofore, a positive correlation had been found between collective efficacy and role ambiguity factor, which are related to the players' perceptions about their behaviour (Eys & Carron, 2001; Beauchamp et al., 2002, 2005). Besides, conceptualized factors have different degrees of concordance from each other. One is the players' confidence to perform tasks as a team (group level), whereas the other

corresponds to some confusion or conflict experienced by the team members concerning their tasks or functions individually (individual level).

As the concordance in the conceptual definition of a factor (such as role ambiguity and role conflict) with collective efficacy increases, we can observe a stronger correlation between them (Paiement, Myers & Feltz, 2007). Considering the factors associated with the individual perceptions in a team, both role ambiguity and role conflict variables seem to be effective on the variations in collective efficacy factor.

Role ambiguity led to a positive estimation while role conflict encouraged a negative prediction of collective efficacy at an interpersonal level. To be more specific, lower levels of confidence about the team's performance is shown by the team members perceiving higher conflict levels (Tekleab et al., 2009). Even the individual attraction to a team is regarded as an individual perception; it may also become a variable which has closely related to collective perception factor because it is associated with the group's ability to attract their members as well.

On the other hand, role conflict or role ambiguity factors do not have any dimension related to the group, since both terms refer to the individual perceptions of individual team members about their tasks or functionalities. Moreover, we should keep in mind that some factors like role conflict (task and relationship) that are associated with negative aspects were also statistically important.

6. Conclusion

The purpose of our research is to present how role ambiguity and role conflict could be used in order to estimate collective efficacy, bearing in mind that there is a strong correlation between the athletes' role and the bonds within their team (Eys & Carron, 2012). Furthermore, our study is to synthesize these similar concepts in order to handle interpersonal issues within a team or a group, e.g., conflicts or devotion, to establish stronger relationships (Marks et al., 2001). We conducted the analysis of these factors to reach this aim, in order to assess the variations of players' confidence levels through a season using a multilevel study approach. Moreover, the study contributes to the theoretical and practical knowledge as the research is done in two dimensional form. It covers both the individual level by investigating the importance of role conflict and role ambiguity and the collective level represented by collective efficacy and team cohesion. When results are assessed, it is seen that collective efficacy has an impact on team cohesion. As the perception of that particular type of players on collective competence in group tasks increases, their involvement with the team's goals and activities also improves both individually and as a group.

In our research, we evaluated the effect of various psychosocial factors (i.e., role conflict and role ambiguity) in predicting the collective efficacy. Throughout our research, the players' approaches and perceptions of these factors during the season are shown to explain the concept of collective efficacy within their groups. In general, role ambiguity and role conflict seem to affect confidence levels of team members, though they did not mainly appear as determinants for this factor. Therefore, this finding partially agrees with our initial hypothesis; however, the hypothesis is still undoubtedly relevant since it provides several practical benefits for mentors of high-performance sports.

One of the limitations of the study is that it is related to self-reports, which were the sole source of the data obtained during the study. So, shared method variance may have affected our results and conclusions to some extent. In order to get much more objective predictors of team cohesion and role conflict, which are obtained through objective observation tools and data, a further longitudinal study would be beneficial. A final caution is that our findings should be generalized to the other sports and populations carefully since our data was taken from specific sports players (i.e., football), and a specific country (i.e., China). Nevertheless, despite all these limitations, our study is sufficient to create a unique value for the literature since it evaluates the concurrent impacts on prediction caused by individual (role conflict and role ambiguity) and collective (team cohesion) perceptions within a semi-professional sports group in China. If a further study to be conducted in the future, this research might be helpful when forming a new plan to diminish quarrels among players and to increase cohesion (Carron & Eys, 2012; Holt et al., 2012). For future studies, we highly advise the potential differences between females and males, as well as amateurs and professionals to be examined, in both intercept and slopes.

References:

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of social and clinical psychology*, 4(3), 359-373.
- Beauchamp, M. R. (2007). Efficacy beliefs within relational and group contexts in sport. In S. Lavalley, & D. Jowett (Eds.), *Social psychology in sport* (pp. 181e193). Champaign, IL: Human Kinetics.
- Beauchamp, M. R., & Bray, S. R. (2001). Role ambiguity and role conflict within interdependent teams. *Small Group Research*, 32, 133e157.
- Beauchamp, M. R., Bray, S. R., Eys, M. A., & Carron, A. V. (2002). Role ambiguity, role efficacy, and role performance: multidimensional and mediational relationships within interdependent sport teams. *Group Dynamics: Theory, Research, and Practice*, 6, 229e242.

- Beauchamp, M. R., Bray, S. R., Fielding, A., & Eys, M. A. (2005). A multilevel investigation of the relationship between role ambiguity and role efficacy in sport. *Psychology of Sport and Exercise*, 6, 289e302.
- Bettman JR, Weitz BA. Attributions in the boardroom: causal reasoning in corporate annual reports. *Adm Sci Q* 1983; 28(June):165– 83. [Crossref](#)
- Katrien Fransen, Steven Decroos, Norbert Vanbeselaere, Gert Vande Broek, Bert De Cuyper, Jari Vanroy & Filip Boen (2015) Is team confidence the key to success? The reciprocal relation between collective efficacy, team outcome confidence, and perceptions of team performance during soccer games, *Journal of Sports Sciences*, 33:3, 219-231. [Crossref](#)
- Bowman EH. Strategy and the weather. *Sloan Manage Rev* 1976; 17(Winter): 49– 62. 1114 M.D. Michalisin et al. / *Journal of Business Research* 57 (2004) 1108–1115. [Crossref](#)
- Campbell WK, Sedikides C. Self-threat magnifies self-serving bias: a metaanalytic integration. *Rev Gen Psychol* 1999;3(March):23– 43. [Crossref](#)
- Carron, A. V., & Eys, M. A. (2012). *Group dynamics in sport* (4th ed.). Morgantown, WV: Fitness Information Technology.
- Carron, A. V., Brawley, L. R., & Widmeyer, W. N. (1998). The measurement of cohesiveness in sport groups. In J. L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 213e226). Morgantown, WV: Fitness Information Technology.
- Carron, A. V., Eys, M. A., & Martin, L. J. (2012). Cohesion: Its nature and measurement. *Handbook of measurement in sport and exercise psychology*. Champaign, IL: Human Kinetics.
- Eys, M. A., & Carron, A. V. (2001). Role ambiguity, task cohesion, and task self-efficacy. *Small Group Research*, 32, 356e373. [Crossref](#)
- Eys, M. A., & Carron, A. V. (2001). Role ambiguity, task cohesion, and task self-efficacy.
- Eys, M., Loughhead, T., Bray, S. R., & Carron, A. V. (2009). Development of a cohesion questionnaire for youth: The Youth Sport Environment Questionnaire. *Journal of Sport and Exercise Psychology*, 31(3), 390-408.
- Faria AJ. Business simulation games: current usage levels—an update. *Simul Gaming* 1998;29(September):295– 308. [Crossref](#)
- Feltz, D. L., & Lirgg, C. D. (1998). Perceived team and player efficacy in hockey. *Journal of applied psychology*, 83(4), 557.
- Feltz, D. L., Short, S. E., & Sullivan, P. J. (2008). *Self-efficacy in sport*. Champaign, IL: Human Kinetics.
- Fransen, K., Decroos, S., Vanbeselaere, N., Vande Broek, G., De Cuyper, B., Vanroy, J., et al. (2015). Is team confidence the key to success? The reciprocal relation between collective efficacy, team outcome confidence, and perceptions of team performance during soccer games. *Journal of Sports Sciences*, 33, 219e231. [Crossref](#)
- Fransen, K., Decroos, S., Vanbeselaere, N., Vande Broek, G., De Cuyper, B., Vanroy, J.,
- Fransen, K., Vanbeselaere, N., Exadaktylos, V., Vande Broek, G., De Cuyper, B., Berckmans, D., et al. (2012). “Yes, we can!”: perceptions of collective efficacy sources in volleyball. *Journal of Sports Sciences*, 30, 641e649.
- Fransen, K., Vanbeselaere, N., Exadaktylos, V., Vande Broek, G., De Cuyper, B., Berckmans, D., et al. (2012). “Yes, we can!”: perceptions of collective efficacy sources in volleyball. *Journal of Sports Sciences*, 30, 641e649.
- George, T. R., & Feltz, D. L. (1995). Motivation in sport from a collective efficacy perspective. *International Journal of Sport Psychology*, 26, 98-98.
- Greenlees, I. A., Graydon, J. K., & Maynard, I. W. (1999). The impact of collective efficacy beliefs on effort and persistence in a group task. *Journal of sports sciences*, 17(2), 151-158.
- Hayes, A. F. (2006). A primer on multilevel modeling. *Human Communication Research*, 32, 385e410.
- Heck, R. H., Thomas, S. L., & Tabata, L. N. (2010). *Multilevel and longitudinal modeling with IBM SPSS*. New York: Routledge.
- Heck, R. H., Thomas, S. L., & Tabata, L. N. (2010). *Multilevel and longitudinal modeling with IBM SPSS*. New York: Routledge.
- Heider F. Social perceptions and phenomenal causality. *Psychol Rev* 1944;51(April):358– 74.
- Heuz, e, J. P., Raimbault, N., & Fontayne, P. (2006). Relationships between cohesion, collective efficacy and performance in professional basketball teams: an examination of mediating effects. *Journal of Sports Sciences*, 24, 59e68. [Crossref](#)
- Heuz_e, J. P., Raimbault, N., & Fontayne, P. (2006). Relationships between cohesion, collective efficacy and performance in professional basketball teams: an examination of mediating effects. *Journal of Sports Sciences*, 24, 59e68. [Crossref](#)
- Hodges, L., & Carron, A. V. (1992). Collective efficacy and group performance. *International Journal of Sport Psychology*.
- Hogg MA. The social psychology of group cohesiveness: from attraction to social identity. New York: New York Univ. Press; 1992.
- Paskevich, D. M., Brawley, L. R., Dorsch, K. D., & Widmeyer, W. N. (1999). Relationship between collective efficacy and team cohesion: Conceptual and measurement issues. *Group Dynamics: Theory, Research, and Practice*, 3(3), 210.
- Marcos, F. M. L., Sánchez-Miguel, P. A., Sánchez-Oliva, D., Alonso, D. A., & García-Calvo, T. (2012). Evolution of perceived cohesion and efficacy over the season and their

- relation to success expectations in soccer teams. *Journal of human kinetics*, 34(1), 129-138.
- Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of management review*, 26(3), 356-376.
 - Michelson, D., Snyder, E., Paradis, E., Chengan-Liu, M., Snavely, D. B., Hutzelmann, J., & Lines, C. (2014). Safety and efficacy of suvorexant during 1-year treatment of insomnia with subsequent abrupt treatment discontinuation: a phase 3 randomised, double-blind, placebo-controlled trial. *The Lancet Neurology*, 13(5), 461-471.
 - Myers, N. D., Paiement, C. A., & Feltz, D. L. (2004). Reciprocal Relationships Between Collective Efficacy and Team Performance in Women's Ice Hockey. *Group Dynamics: Theory, Research, and Practice*, 8(3), 182.
 - Myers, N. D., Paiement, C. A., & Feltz, D. L. (2007). Regressing team performance on collective efficacy: Considerations of temporal proximity and concordance. *Measurement in Physical Education and Exercise Science*, 11(1), 1-24.
 - Ingram RW, Frazier KB. Narrative disclosures in annual reports. *J Bus Res* 1983;11(March):49–60. [Crossref](#)
J Mark Res 1978;15(May):220– 8.
 - Kozub, S., & McDonnell, J. (2000). Exploring the relationship between cohesion and collective efficacy in rugby teams. *Journal of Sport Behaviour*, 23(2), 120-129.
 - Leo, W. R. (2012). *Techniques for nuclear and particle physics experiments: a how-to approach*. Springer Science & Business Media.
 - Riggs, M. L., Warka, J., Babasa, B., Betancourt, R., & Hooker, S. (1994). Development and validation of self-efficacy and outcome expectancy scales for job-related applications. *Educational and psychological measurement*, 54(3), 793-802.
 - Ronayne, L. S. (2004). *Effects of coaching behaviors on team dynamics: how coaching behaviors influence team cohesion and collective efficacy over the course of a season* (Doctoral dissertation, Miami University).
 - Tekleab, A. G., Quigley, N. R., & Tesluk, P. E. (2009). A longitudinal study of team conflict, conflict management, cohesion, and team effectiveness. *Group & Organization Management*, 34(2), 170-205.
 - Wellman, H. M., Cross, D., & Watson, J. (2001). Meta-analysis of theory-of-mind development: The truth about false belief. *Child development*, 72(3), 655-684.
 - Zaccaro, S. J., Blair, V., Peterson, C., & Zazanis, M. (1995). Collective efficacy. In *Self-efficacy, adaptation, and adjustment* (pp. 305-328). Springer, Boston, MA.