MULTIDIMENSIONAL SOCIAL COMPETENCE, MOTIVATION AND CYBERBULLYING: A CULTURAL APPROACH WITH COLOMBIAN AND SPANISH ADOLESCENTS

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Abstract

International research on the risk and protective factors of cyberbullying focus on individual personality variables and the use of technological devices. However, it is necessary to examine in greater depth the interpersonal context as a factor that may influence cyberbullying and the possible differences between cultures. The objective of this paper was to analyze the relationship of influence of two interpersonal variables, multidimensional social competence and social motivation, on cyber-aggression and cyber-victimization through a cultural study of Spain and Colombia, which will permit generalizing the influence of interpersonal variables on cyberbullying in different cultural settings. The sample consisted of 3,830 secondary school students (50.4% Colombian and 49.6% Spanish). Self-reporting measurement instruments validated with different European samples were used. Confirmatory factor analysis and structural equation modeling were performed. A model of mutual influence revealing the inverse relationship of normative adjustment and the direct relationship of popularity goals in cyber-aggression was obtained. Cyber-victimization was explained by the direct influence of prosocial behaviors and avoidance goals and the inverse influence of perceived social efficacy, development goals, and social and normative adjustment. As conclusion this study demonstrates the homogeneity of the Colombian and Spanish models and the important role that the face-to-face context plays in cyberbullying involvement. This paper highlights and supports the design of cyberbullying prevention programs, which requires the inclusion of multidimensional social competence and social goals.

Introduction

Cyberbullying has shown a steady increase since 2000 (Finkelhor, Turner, Ormrod, & Hamby, 2010). This increment is related to the large expansion of the use of the internet

and information and comunication technologies (ICTs, hereinafter) facilitated by the availability of new mobile digital devices (Davies & Eynon, 2012; Gosling & Mason, 2015). It is estimated that about 7.1 billion people are mobile subscribers and that 46% of households in Western countries (Europe, the USA, Canada and New Zealand) have a connection to the network (ITU, 2015). In Colombia, about 48.6% of adolescents from 10 to 18 years old have access to the internet and 88.3% have a mobile or cellular phone (Arango, Bringué, & Sádaba, 2010), with an average of internet connection of 5.46 hours per week (ComScore, 2014). In Spain, 93.6% of young people aged between 10 and 15 years use internet (INE, 2015), which are online on average 8.27 hours a week (Martínez, Cortés, Medrano, & Apodaca, 2014). In general, this cross-cultural study in different Latin American countries and Spain (in addition to Ireland) shows that adolescents spend an average of 6.9 hours a week surfing the internet, although in Latin American countries there is a lower mean, due in part to socioeconomic and cultural parameters (Martínez, et al., 2014).

This situation has significantly changed the interpersonal and social relations of adolescents (Kubiszewski, Fontaine, Potard, & Auzoult, 2015) and has originated a complex scenario of social interaction that needs to be studied with detail, because it requires from adolescents the acquisition of new skills and competences to face new possibilities of interaction, included intimidatory, threatening and violent practices like cyberbullying, one of the most widely studied risks (Olweus, 2012; Smith, 2015), and recently recognized as a major public health problem in schools (Aboujaoude, Savage, Starcevic, & Wael, 2015). In this line, the use of digital dispositive could introduce differences in the social competence for the virtual interaction. It is probably that European adolescents, with a higher use of digital devices than Latino American, have

changed in some extent their social capacities, due precisely to the impact of having such devices widely available.

Cyberbullying is defined as harassment perpetrated under three main criteria: (1) intentionality; (2) repetition; and (3) the imbalance of power between the aggressor and the victim, but carried out through electronic means (Slonje, Smith, & Frisén, 2013). In addition, cyberbullying is considered to have a variety of idiosyncratic attributes: the ability to attack at any time and place (the so-called 24/7), the possibility of anonymity and the potential for a wider audience and identity theft (Gradinger, Strohmeier, & Spiel, 2010; Nocentini et al., 2010). About 20% of young people aged 10 to 18 have participated in this phenomenon (Hinduja & Patchin, 2012; Shin & Ahn, 2015).

A systematic review of studies on the cyberbullying phenomenon reveals that, from the beginning, research on this issue has been conducted primarily in North America and Europe (Zych, Ortega-Ruiz & Del Rey, 2015). The uneven geographical distribution in the number and importance of scientific publications points to the need to carry out studies on cyberbullying in developing countries with less scientific production, as is the case of Latin America. Research on cyberbullying in this setting is particularly relevant as it has been shown that the gap between Internet use in developed and developing countries is becoming increasingly narrower (ITU, 2015). However, the relationship between managing the use of ICTs and education aimed at safe and responsible usage is still incipient in Latin American countries (Gasser, Maclay, & Palfrey, 2010).

Although there are some studies on the prevalence of cyberbullying in Latin America (Del Río, Bringue, Sádaba, & González, 2010) and in individual countries, such as Mexico (Martínez et al., 2014) or Colombia, with values from 13,6 to 59% (Mura & Diamantini, 2013), the scientific production and knowledge on this issue is very poor.

In addition to the scarcity of studies, there is a lack of valid and reliable instruments to measure this phenomenon. Del Rey et al. (2015) designed and validated an instrument with a sample of six European countries that integrates the most relevant conceptual elements related to cyberbullying: the instrument captures different types of cyberbullying behavior, measures the dynamic nature of the phenomenon through its two dimensions (cyber-victimization and cyber-aggression) and makes no distinction between digital devices.

The use of a common instrument with known psychometric properties to compare the phenomenon of cyberbullying would allow us to gain further insight into the universality of the phenomenon and, where necessary, examine differences and similarities between countries. Comparisons between two different geographical regions, such as Spain and Colombia, which share a similar culture and history as well as the same language, are of particular interest as they open up new lines of inquiry into cyberbullying beyond cross-cultural, comparative studies among European countries (Del Rey et al., 2015) or between the United States and countries of Asia (Barlett et al., 2014).

Cyberbullying and face-to-face bullying are phenomena that often co-occur. Recent studies indicate that the involvement of victims or perpetrators in traditional bullying increases the likelihood of being cyber-aggressors or cyber-victims (Baldry, Farrington, & Sorrentino, 2015; Kowalski, Giumetti, Schroeder, & Lattanner, 2014). Studies addressing the relationship between the two phenomena have compared their definition and measurement (Thomas, Connor, & Scott, 2015). It has been shown that cyberbullying often occurs between victims and bullies who know each other and attend the same school (Juvonen & Gross, 2008), which suggests that interpersonal factors

influencing traditional bullying may also influence cyberbullying (Gradinguer, Yanagida, Strohmeier, & Spiel, 2016).

Social competence as a protective factor in cyberbullying

Recent research on predictors of cyberbullying have focused on the psychological and individual variables common to bullying, such as empathy, social anxiety and moral disengagement (Brewer & Kerslake, 2015; Gini, Pozzoli, & Himel, 2014) or other more specific variables, such as Internet access time, control of information and the social use of ICTs (Álvarez-García, Núñez, Dobarro, & Rodríguez, 2015; Shin & Ahn, 2015). In recent years, the scientific literature has shown that contextual predictive factors, such as social support, the school climate or peer group norms, are common to both phenomena (Casas, Del Rey, & Ortega, 2013; Kowalski et al., 2014), thus recognizing that cyberbullying is a psychosocial phenomenon (Festl, Scharkow, & Quandt, 2014; Romera, Cano, García-Fernández, & Ortega-Ruiz, 2016). It is therefore necessary to investigate the influence of the dynamics of interactive variables, among them social competence, which is defined as the ability to interact effectively with others (Rose-Krasnor, 1997). Studies on the relationship between social competence and aggression indicate that there is a scale effect such that the lower the level of social competence, the more serious the antisocial behavior (Arce, Fariña, & Vázquez, 2011). The relationship between social incompetence and traditional, face-to-face (Malti, 2006) or ICT-mediated aggressive behavior (Schoffstall & Cohen, 2011) has also been demonstrated. Moreover, longitudinal relationships have been found to explain aggressive behavior in terms of the lack of social competence (Laible, McGinley, Carlo, & Augustine, 2014). Other studies on social competence and cyberbullying using intervention programs have found that improved social competence prevents involvement in cyberbullying (Gradinguer et al., 2016) and vice versa: intervention in cyberbullying improves social competence (Garaigordobil & Martínez-Valderrey, 2014). Among the few works dealing with the study of social competence as a risk factor of cyberbullying is that of Navarro, Yubero, Larrañaga and Martinez (2012), which shows that a low level of social competence is a risk factor of cyber-victimization. However, the study addresses the concept of social competence using a small set of social skills, while the theoretical developments in this field of study recognize that the definition of social competence also includes emotional skills and social contact, adjustment to the interpersonal context, the acceptance of others, as well as the self-assessment of effectiveness in social interaction (Rose-Krasnor, 1997). This multidimensional perspective of social competence has been captured either by using a series of measurement instruments (Bornstein, Hahn, & Haynes, 2010; Santos, Vaughn, Peceguina, & Daniel, 2014) or a single instrument that captures the conceptual complexity of social competence in a brief manner (Adolescent Multidimensional Social Competence Questionnaire, AMSC-Q) (Gómez-Ortiz, Romera, & Ortega-Ruiz, 2017).

Social motivation has also been recognized as a social cognition variable associated with competence. It has been defined as cognitive representations about results desired in social domain and is divided in: a) social development goals, b) social demonstration-approach goals (popularity), and c) social demonstration-avoid goals (Ryan & Shim, 2006). It has been shown that school-age students that strive to enhance their interpersonal relationships enjoy greater acceptance by their peers, while boys and girls who seek social recognition –which implies a certain degree of narcissistic misadjustment– are more likely to display aggressive behavior (Rodkin, Ryan, Jamison, & Wilson, 2013; Rudolph, Abaied, Flynn, Sugimura, & Agoston, 2011). On the other hand, avoidance of negative social evaluation has been linked to negative social

outcomes and involvement in peer victimization (Shim, Cho, & Wang, 2013; Storch, Brassard, & Masia-Warner, 2003). To the best of our knowledge, however, there are no studies that address the relationship between social motivation and cyberbullying from this complex perspective.

Present Study

It is therefore of interest to investigate the direct influence of both constructs (multidimensional social competence and social motivation), as it would aid in identifying the specific dimensions of competence and motivation that explain involvement in bullying and harassment via the Internet. This study will allow to analyze what specific dimensions of social variables related with cyberbullying are common, due to the universality of phenomenon, and which ones are related with cultural statements (levels of participation, norms, adjustment).

This study aims to analyze the relationship of influence of social goals and multidimensional social competence on cyber-aggression and cyber-victimization through a comparative study of Spain and Colombia, which will permit generalizing the relationships between variables under the particular cultural conditions of each country (Delva, Allen-Meares, & Momper, 2010). The hypothesis of this study were:

H1: Similar patterns of influence of social competence and motivation can be observed, due to the universality of the phenomen cyberbullying.

H2: specific differences in normative adjustment may also be found regarding each country's particular peer culture, social media communication practices and specific style of social convention and norms.

Method

Participants

The total sample consisted of 3830 students from Colombia and Spain. All participants were of Colombian or Spanish nationality. Schools were selected according to criteria

of titularity (public or private) and geographic area (rural or urban) from the South of both countries. The Colombian sample comprised 1931 students (46.9% boys) aged 10-19 years (M = 14.92, SD = 1.89). Of these, 66.7% attended public schools and 33.3% attended private schools. The Spanish sample consisted of 1899 students (51% boys) aged 11-18 years (M = 14.34, SD = 1.81), of whom 63.9% attended public schools and 36.1% attended private schools.

Instruments

European Cyberbullying Intervention Project Questionnaire (ECIPQ; Del Rey et al., 2015) composed of 22 Likert-type items (11 for cyber-victimization and 11 for cyberaggression) with five response options (0 = never, 1 = once or twice, 2 = once or twice a*month*, 3 = *about once a week*, 4 = *more than once a week*). Examples of the items are: "Someone spread rumors about me on the Internet," "Someone hacked into my account and pretended to be me)" or "I posted embarrassing videos or pictures of someone online." The internal consistency of the original test, which was validated in six European countries, included Spain, was optimal: $\alpha_{\text{cybervictimization}} = .97;$ $\alpha_{cyberaggression} = .93$ (Del Rey et al., 2015). The Colombian validation also yielded optimal values: $\Omega_{\text{cvber-aggression}} = .96$, $\Omega_{\text{cvber-victimization}} = .94$, $\Omega_{\text{total}} = .97$ (Herrera-López, Casas, Romera, Ortega-Ruiz, & Del Rey, 2017).

Adolescent Multidimensional Social Competence Questionnaire (AMSC-Q; Gómez-Ortiz et al., 2017). The AMSC-Q consists of 26 items divided into five dimensions: prosociality, perceived social self-efficacy, social adjustment, normative adjustment and cognitive reappraisal. Responses are measured on a Likert-type scale with seven levels of agreement. Examples of the items are: "I join in the activities of others" or "I don't bother my classmates when they are working." The internal consistency of the original test validated in Spain, was optimal: $\Omega_{\text{prosocialty}} = .77$; $\Omega_{\text{socialselfefficacy}} = .82$; $\Omega_{\text{socialadjustment}} = .83$; $\Omega_{\text{normativeadjustment}} = .80$; $\Omega_{\text{cognitivereappraisal}} = .79$; $\Omega_{\text{total}} = .90$ (reliability values were optimal because the inter-items correlation was between .68 and .18 respectively. So values cannot be considered influenced by high correlations between items).

Social Achievement Goal Scale (Ryan & Shim, 2006; Spanish adaptation in Herrera-López, Romera, Ortega-Ruiz, & Gómez-Ortiz, 2016). The scale comprises 12 items structured into three factors: a) social development (SDevG hereafter) (e.g., "I strive to develop my interpersonal skills"); b) social demonstration-approach (popularity) (SPopG hereafter) (e.g., "It is important to me that others think of me as popular"); and c) social demonstration-avoid (SAvG hereafter) (e.g. "My goal is to avoid doing things that would cause others to make fun of me"). Responses were measured using a 7-point Likert-type scale (where 1 = not at all true and 7 = very true). The internal consistency of the original scale was adequate: $\alpha_{SDevG} = .80$; $\alpha_{SPopG} = .85$; $\alpha_{SAvG} = .81$.

Procedure

The research design was transversal, ex-post-facto retrospective with a single group and multiple measures (Montero & León, 2007). After obtaining authorization from the administrative bodies of the schools and the families, the schools were visited to administer the questionnaire. The students were informed of the aim of the study and told that participation would be anonymous, confidential and voluntary. The average time required to complete the questionnaire was 30 minutes.

Data analysis

The adaptation of the instruments used to the study population of Colombia was first assessed by expert opinion. A pilot test was then conducted with 60 students and a confirmatory factor analysis (CFA) was performed. Given the absence of multivariate normality and the categorical nature of the variables to be studied, the weighted least squares (WLS) estimation method with the Satorra-Bentler robust correction (Bentler, 2005; Byrne, 2006) was selected for both the CFA and the structural equation models (SEM). The fit indices used were the Satorra-Bentler chi-square (χ^2_{S-B}) (Satorra & Bentler, 2001) and its probability value (*p*), the comparative fit index (CFI) (> .95), the non-normed fit index (NNFI) (> .95), the root mean square error approximation (RMSEA) (< .08), the standardized root mean square residual (SRMR) (< .08) and the AIC index (Byrne, 2006; Hu & Bentler, 1999). The analyses were performed using EQS 6.2 software (Bentler, 2005).

To analyze internal consistency, a McDonald's Omega (Ω) test (> .70) was performed using Factor 9.2 software (Lorenzo-Seva & Ferrando, 2006). This test is recommended for ordinal variables in the absence of multivariate normality.

To compare the SEM models, a configural invariance analysis was performed. To do so, the significant difference between the chi-squares (p < .001) and delta values ($\Delta \le .01$) of the fit indices was considered (Chen, 2007).

Results

In a first phase, analyses were performed to verify the suitability of the scales used in the Colombian population as data were not available. For the AMSC-Q scale, the total internal consistency and the consistency of each dimension were also adequate $(\Omega_{\text{prosociality}} = .80; \quad \Omega_{\text{socialselfefficacy}} = .82; \quad \Omega_{\text{socialadjustment}} = .85; \quad \Omega_{\text{normativeadjustment}} = .82;$ $\Omega_{\text{cognitivereappraisal}} = .74; \quad \Omega_{\text{total}} = .91; \text{ reliability values were optimal because the inter-items$ correlation was between .67 and .07 respectively, so values cannot be consideredinfluenced by high correlations between items). The fit indices obtained in the CFA $confirmed the adequacy of the original factor structure: <math>\chi^2_{\text{S-B}} = 1698.05; p < .001;$ NNFI = .96; CFI = .97; RMSEA = .05 (90% CI [.046, .053]); SRMR = .05; AIC = 1120.05. For the Social Achievement Goal Scale, adequate internal consistency was obtained for each factor: $\Omega_{\text{SDevG}} = .91$; $\Omega_{\text{SPopG}} = .86$; $\Omega_{\text{SAvG}} = .74$; $\Omega_{\text{total}} = .82$. The fit indices obtained in the CFA confirmed the adequacy of the original factor structure: $\chi^2_{\text{S-B}} = 350.99$; p < .001; NNFI = .97; CFI = .98; RMSEA = .05 (90% CI [.045, .052]); SRMR = .08; AIC = 248.99.

A hypothetical SEM model was initially used in which all the independent variables, social competence and social goals influenced the dependent variables, the dimensions of cybervictimization and cyber-aggression. The fits were inadequate with no significant effects observed between the variables in both countries. The model for each country was then modified taking into account the different theoretical approaches and the statistically significant relationships observed in the initial hypothetical model, until obtaining the best possible model with optimum indicators of adjustment (see Figure 1). In the first model with the Colombian sample, high and direct correlation values were observed in the polychoric matrix between perceived social self-efficacy and social development goals, social adjustment and development goals, and normative adjustment and social self-efficacy, whereas inverse correlations were found between normative adjustment and cyber-aggression and normative adjustment and cyber-victimization (see Table 1).

INSERT TABLE 1

The model showed optimal values for the fit indices: $\chi^{2}_{S-B} = 10643.37$; p < .001; NNFI = .95; CFI = .95; RMSEA = .04 (90% CI [.037, .044]); SRMR = .08; AIC = 7269.37 (see Figure 1).

INSERT FIGURE 1

The Colombian model showed that the variables having a direct and negative effect on cyber-aggression were normative adjustment ($\beta = -.02$; p < .05) and popularity goals

($\beta = -.02$; p < .05). This relationship explained 21% of the variance in cyber-aggression (see Figure 1).

As regards cyber-victimization, the model indicated a negative influence of normative adjustment ($\beta = -.29$; p < .05), perceived social self-efficacy ($\beta = -.19$; p < .05), social development goals ($\beta = -.18$; p < .05) and social adjustment ($\beta = -.14$; p < .05). In contrast, prosociality was observed to have a positive effect ($\beta = .25$; p < .05). The model explained 19% of the variance in cyber-victimization (see Figure 1).

In the second model with the Spanish sample, the polychoric matrix (see Table 2) showed high values between perceived social self-efficacy and social adjustment, social adjustment and prosociality, perceived social self-efficacy and normative adjustment, and perceived social self-efficacy and prosociality (see Table 2).

INSERT TABLE 2

The fit indices showed adequate values: $\chi^2_{S-B} = 10789.92$; p < .001; NNFI = .96; CFI = .96; RMSEA = .04 (90% CI [.043, .052]); SRM = .08; AIC = 7417.92. (see Figure 1).

The model with the Spanish sample showed that the variables exerting a direct and inverse influence on cyber-aggression were popularity goals ($\beta = .14$; p < .05) and normative adjustment ($\beta = -.32$; p < .05). This relationship explained 12% of the variance in cyber-aggression (see Figure 1).

As regards cyber-victimization, the model showed an inverse effect of perceived social self-efficacy ($\beta = -.21$; p < .05), social adjustment ($\beta = -.20$; p < .05) and normative adjustment ($\beta = -.29$; p < .05). In contrast, a direct influence was observed for prosociality ($\beta = .29$; p < .05) and social avoidance goals ($\beta = .12$; p < .05). These effects explained 11% of the variance in cyber-victimization (see Figure 1).

Finally, an analysis of configurational invariance was performed. Although the results revealed clear differences across the models, the structure is similar. Therefore, a configuration test was performed on the two models obtained. The results showed no differences between the models. Moreover, no difference was found regarding the cutoff criteria for assessing invariance or a change of > -.010 in the CFI index or a change of > 0.015 in the RMSEA index following Chen (2007) (see Table 3).

INSERT TABLE 3

Discussion

The aim of the study was to analyze the influence of multidimensional social competence and motivation on cyberbullying in Colombia and Spain, two countries that differ with regard to their geopolitical situation and economic and social development, but which share a common language and historical Spanish culture. The optimal fit indices obtained and the similarity of the relationships observed between the models with Spanish and Colombian adolescents revealed that it is important take into account variables such as social competence and motivation for understanding involvement in cyber-aggression and cyber-victimization. This finding confirms the psychosocial nature of cyberbullying (Festl et al., 2014; Romera et al., 2016) and the importance of quality in interpersonal relationships for the prevention of this phenomena. However, several nuances, which could be attributed to the use and level of inclusion in technologies, were also observed; some of which were related to specific characteristics, particularly those concerning the behaviors and habits of youth in each culture.

In cyber-aggression it was observed a model where the social competence dimension that most influences was normative adjustment with an inverse relationship. Also it was observed a direct relationship of popularity goals in cyber-aggression was. Cybervictimization was explained by the direct influence of prosocial behaviors and avoidance goals and the inverse influence of perceived social efficacy, development goals, and social and normative adjustment.

The results show a strong and inverse relationship between normative adjustment and involvement in cyberbullying, particularly in the model for Colombia, in which there may be a greater perception of punishment. It suggests that it is very probable that the violence and insecurity that Colombian society (guerrilla, drug trafficking, urban violence, etc.) has experienced during the last six decades has influenced family environments and socialization styles among peers (Lila, Musitu, & Buelga, 2000; Ortiz, 1985). This result may indicate that breaching classroom norms can lead to the development of risk behaviors in which respect and affective consideration are not taken into account in interactions with others. Such transgressive behavior, far from being perceived as harmful by youth, can be seen as appropriate and morally justified (Pozzoli, Gini & Vieno, 2012). This finding is consistent with studies indicating that normative adjustment is an important factor in both cyberbullying and traditional bullying because it determines the regulation and modulation of behavior in interactions with peers (Casas et al., 2013). The Spanish model also showed that popularity goals have a direct influence on cyberbullies and are negatively associated with normative adjustment. This suggests that the pursuit of popularity can lead some boys and girls in certain peer groups to act contrary to socially established norms (Berger & Caravita, 2016). Seeking popularity could also be interpreted as affording implicit power (Hinduja & Patchin, 2012), whose relationship with aggressive behavior has been widely recognized (Rodkin et al., 2013). Although Spanish students consider themselves to be adapted (Serrano, El-Astal, & Faró, 2004), they are characterized by more individualistic traits and more social pressure, due to the western cultural stereotypes that favor the development of personal autonomy, being attractive and

popular (Pastor, 2016). These values lead to a greater segmentation of the social world (Lila et al., 2000), and to the tendency to give greater relevance to the activity and / or comments in social networks, perhaps driven by the search of a greater visibility or popularity. It is therefore necessary to analyze in further depth the relationship between popularity, cyber-aggression and normative adjustment.

In the Colombian model, the lack of normative adjustment was also found to be the most influential variable in cyber-victimization, thus indicating that disruptive behavior is a significant risk factor for cyberbullying involvement in this context.

The influence of the other dimensions of social competence follow a similar pattern in both contexts: there exists a cyber-victimization risk profile characterized as prosocial, but which in turn displays a low level of perceived efficacy in interpersonal relations and poor adjustment among peers. The lack of social adjustment has been recognized as one of the most influential risk factors in bullying victimization (Hymel & Swearer, 2015; MacEvoy & Leff, 2012). Because these children are socially devalued by their peers, attacks against them may be seen as warranted by the peer group (Isaacs, Voeten, & Salmivalli, 2013). Therefore, greater attention should be paid to the study of norms and conventions within the peer group, as they may be the basis for fomenting and normalizing online aggressive behavior (Sasson & Mesch, 2014). The influence of the lack of social adjustment on victimization is also explained by the failure to acquire the necessary social skills to interact with others (Camodeca, Caravita, & Coppola, 2015). In the case of Spanish students, this statement is reinforced by the avoidance of negative social evaluation by peers, thus confirming the relationship between avoidance goals and victimization (Shim et al., 2013; Storch et al., 2003) and by the lack of motivation to improve relations with others in the Colombian setting. The fact that low levels of perceived social self-efficacy are found to be associated with cyber-victimization demonstrates the acknowledged difficulty of victims to engage in positive and satisfying relationships (Navarro et al., 2012). Therefore, the negative perception of oneself when interacting with others is a clear risk factor for involvement in cyber-victimization, as has been demonstrated in face-to-face victimization (Salmivalli & Isaac, 2005).

The similarity of the models with Spanish and Colombian adolescents suggests that the phenomenon of cyberbullying, according to the theoretical framework of multidimensional social competence and motivation, responds to similar dynamics and dimensions (Del Rey et al., 2015). These results coincide with cross-cultural studies, in which is acknowledged the relationship between the cultural context of Spain and Colombia in particular aspects as the model family, whose respect and support system influences socio-emotional development of adolescents (Gracia & Musitu, 2003; Mesurado et al., 2014). The common language, on the other hand, may be functioning as a communicative paradigm -expressive and comprehensive- of social processes such as cyberbullying. In this regard, Latin model (which includes Latin American countries but also Spain) differs from others, such as the Anglo-Saxon, in certain school and family educational styles and in behaviors and attitudes which include promoting most familiar independence of boys and girls (Naldini, 2003). Latin countries also share a friendly, proactive and empathetic relationship style seeking welfare living together coexistence in Spanish- (Mesurado et al, 2014; Ortega-Ruiz, 2015). These social characteristics of the Latin countries may explain the similarities in socially competent behaviors and motivations

Although this inference should be taken with caution, it warrants a new line of inquiry for further studies. The results for each cultural context have revealed certain nuances. In Colombia, disruptive behavior is a clear risk factor for involvement in cyberbullying. This trend may be due to collectivist and restrictive connotation that characterizes the Colombian school culture (Lila et al., 2000), where respect for the rules of the institutions, conformity and obedience are highly valued and feared. It is not so much in the Spanish school culture, where the model of tolerant socialization promotes individualism and self-assertion (Arnett, 1995). The results indicate that the perception of peers and the role played within the group is key to understanding the phenomenon in Spain. In this sense, the Spanish culture is characterized by enhancing more individualistic values such us the recognition and social image and acceptance within the group, common in a more competitive European culture (Lila et at., 2000; Tafarodi & Swann, 1996).

The present study allows to suggest that the differences found in the models respond to differences observed between both countries, both in coverage and in time of Internet use, being socioeconomic and cultural parameters key to understanding the phenomenon. This results reflect the possible influence of the technological gap still existing between Europe and Latin America.

The limitations of this study arise from the cross-cutting nature of the analysis, which to some extent restricts causal inferences and limits the interpretation regarding the directionality of the relationships found. It is therefore necessary to address the relationships explored here through longitudinal studies and delve deeper into the role of emotion regulation in relation to the risk of cyber-victimization, as well as the role of the peer group setting in cyberbullying in general.

The results and analysis provide elements for designing educational cross-cultural programmes aimed at preventing cyberbullying. Given the complex social structure of peer group involvement, teachers and school counselors have more precise models to analyze peer networks, in order to improve social motivation and competence among their students to prevent such phenomena.

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Table 1.

Descriptive statistics and polychoric correlations matrix for Colombia

Scale	n (1931)											
	М	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Cyber aggression	.12	.26										
2. Cyber victimization	.25	.37	.49**									
3. Prosociality	5.37	1.02	36**	11**								
4. Social adjustment	5.35	.95	25**	24**	.64**							
5. Normative adjustment	5.57	.98	64**	62**	.58**	.42**						
6. Perceived social self-	5.37	1.04	40**	32**	.55**	.60**	.65**					
efficacy												
7. Cognitive reappraisal	4.72	1.17	31**	20**	.33**	.35**	.47**	.52**				
8. Social development	5.80	.99	33**	20**	.64**	.66**	.63**	.69**	.50**			
goals												
9. Social popularity	3.88	1.42	.13	.06	.13**	.24**	.14	.23**	.10**	.32**		
goals												
10. Social avoidance	4.62	1.43	02	04	.12**	.15**	.21**	.18**	.20**	.33**	.54**	
goals												
Skewness			4.81	3.56	79	91	77	80	49	-1.22	.04	34
Kurtosis			30.92	18.63	1.12	1.63	.63	.98	.15	2.27	78	36

Note: (** *p* < .01)

Table 2.

Descriptive statistics and polychoric correlations matrix for Spain

Scale	n (1899)				2						0	10
	М	SD	- 1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Cyber aggression	.14	.32										
2. Cyber	.20	.38	.54**									
victimization												
3. Prosociality	5.44	1.12	38**	09								
4. Social adjustment	5.39	1.11	25**	24**	.66**							
5. Normative	5.54	1.17	58**	54**	.58**	.47**						
adjustment												
6. Perceived social	5.32	1.18	35**	27**	.65**	.71**	.62**					
self-efficacy												
7. Cognitive	4.99	1.35	33	14	.50**	.47**	.59**	.53**				
reappraisal												
8. Social	3.99	.68	12	.02	.46**	.39**	.35**	.42**	.37**			
development goals												
9. Social popularity	2.35	1.00	.46**	.36*	12**	.07	05**	.03	.02	.17**		
goals												
10. Social avoidance	3.00	.99	.15	.13**	.02	06	.10*	.01	.07*	.33**	.48**	
goals												
Skewness			4.90	3.91	91	87	81	79	50	82	.47	.01
Kurtosis			32.32	20.61	1.52	1.53	.52	.88	.02	.93	51	70

Note: (**p* < .05; ** *p* < .01)

Table 3.

Models	χ^2 s-b	df	р	NNFI	CFI	RMSEA	SRMR	$\Delta \chi^2_{\text{S-B}}$	Δdf	Δp	ΔNNFI	ΔCFI	Δ rmsea	Δ srmr
Colombia	10643.37	1687	.001	.95	.95	.04	.08	146.55						
Spain	10789.92	1686	.001	.96	.96	.04	.08	n.s.	1	.000	.01	.01	.00	.00

Configural invariance of SEM models (Colombia and Spain)



