Psychosocial Intervention

Are Loneliness and Emotional Intelligence Important Factors for Adolescents? Understanding the Influence of Bullying and Cyberbullying Victimisation on Suicidal Ideation

Cirenia Quintana-Orts[a], Lourdes Rey[a], and Félix Neto[b]

[a]University of Málaga, Spain; [b]University of Porto, Portugal

ABSTRACT

The aims of the present study were to examine whether (1) loneliness mediated the association between two types of peer victimisation and suicidal ideation and (2) emotional intelligence (EI) played a moderating role in the indirect and/or direct effect of a mediation model in a large sample of adolescents. Cross-sectional data on 1,929 students (M_{age} = 14.65, SD = 1.79) were analysed. A self-report questionnaire was used to measure demographic variables (course grade, sex, and age), peer victimisation types (traditional and cybervictimisation), loneliness, EI, and suicidal ideation. The results indicated that loneliness only partially mediated the relationship between traditional victimisation and suicidal ideation. By contrast, loneliness was not a significant mediator between cybervictimisation and suicidal ideation. Furthermore, the indirect effects of the mediation model for traditional victimisation were moderated by EI. The greater the level of EI, the weaker the indirect effects of traditional victimisation on suicidal ideation. The findings suggest that interventions targeted at improving EI abilities may help break the links among peer victimisation, loneliness, and suicidal ideation in adolescent victims of bullying.

¿Son la soledad y la inteligencia emocional factores importantes para los adolescentes? La influencia de la victimización por acoso y ciberacoso en la ideación suicida

RESUMEN

Los objetivos del presente estudio fueron examinar (1) si la soledad mediaba la relación entre dos tipos de victimización entre iguales y la ideación suicida y (2) si la inteligencia emocional (IE) ejercía un papel moderador en el efecto indirecto y/o directo del modelo de mediación en una muestra amplia de adolescentes. Se analizaron datos transversales de una muestra de 1,929 estudiantes (M_{edad} = 14.65, DT = 1.79). Se utilizó un cuestionario autoinformado para medir las variables sociodemográficas (curso académico, sexo y edad), los tipos de victimización entre iguales (victimización por acoso tradicional y cibervictimización), la soledad, la IE y la ideación suicida. Los resultados indicaron que la soledad solo mediaba parcialmente la relación entre la victimización por acoso tradicional y la ideación suicida. Por el contrario, la soledad no fue un mediador significativo entre la cibervictimización y la ideación suicida. Además se halló que los efectos indirectos del modelo de mediación para la victimización por acoso tradicional fueron moderados por la IE. A mayor IE los efectos indirectos de la victimización por acoso tradicional sobre la ideación suicida eran menos intensos. Los resultados sugieren que las intervenciones dirigidas a mejorar las habilidades de IE podrían ayudar a debilitar la asociación entre la victimización entre iguales, la soledad y la ideación suicida en adolescentes víctimas de acoso escolar.

Suicide is a public health problem that makes up the second leading cause of death for young persons aged from 15 to 29 years (World Health Organization [WHO, 2016]). This serious global health concern, especially in adolescent age groups, has become a public concern – thus calling for efforts to understand how, why, and when it can be prevented (Hinduja & Patchin, 2018). Over the past decades,

some research efforts (Hinduja & Patchin, 2018; Holt et al., 2015; Klomek et al., 2010) have focused on the links between exposure to bullying and suicide.

Traditional bullying (also known as face-to-face bullying) has been considered as repeated aggressive actions, extending over time and occurring in the context of a power imbalance, wherein

an individual or a group harm another who is unable to effectively defend him-/herself (Smith & Brain, 2000). Following the criteria of intentionality, power imbalance (Olweus, 2013), and victims who cannot readily defend themselves (Smith et al., 2008), a new form of aggressive behaviour, known as cyberbullying, has emerged through the use of electronic devices and social media (Kowalski et al., 2014). Currently, there is still a lack of consensus about whether cyberbullying is just one more type of bullying or it should be considered as a distinct phenomenon. Some authors have established evidence that traditional bullying and cyberbullying share more similarities than differences, that usually co-occur and are highly correlated aggressive behaviours (Cross et al., 2015; Thomas et al., 2015).

Using large samples of adolescents, studies have demonstrated associations between peer victimisation (both traditional bullying and cyberbullying) and the heightened risk of suicide (Hinduja & Parchin, 2018; Hong et al., 2015; Klomek et al., 2010). Holt et al. (2015) carried out a meta-analysis on the relationships between bullying involvement and suicidality, in which the results revealed that bullying involvement is linked with an increased risk for suicidal ideation and behaviours. In fact, the findings of a total of 41 studies (124 effect sizes) indicated a significant and moderate average effect size for peer victimisation and suicidal ideation (OR = 2.34, 95% CI [2.03, 2.69]). Moreover, being cyberbullied has also been established as a risk factor for suicidal ideation (Iranzo et al., 2019; Mitchell et al., 2018). Given the concern of suicide among adolescents who have suffered from bullying and cyberbullying, a growing body of research (e.g., Extremera et al., 2018; Hinduja & Parchin, 2018) continues to explore these relationships.

According to the interpersonal theory of suicide (Joiner, 2005; Van Orden et al., 2010), thwarted belongingness (i.e., social isolation and lack of reciprocally-meaning relationships) increases the risk of suicidal ideation (Mitchell et al., 2018; Van Orden et al., 2010). Indeed, numerous studies have emphasised loneliness as one of the crucial risk factors that might contribute to the development of suicidal thoughts and behaviours (Mitchell et al., 2018; Van Orden et al., 2010). Additionally, using data from 32 countries, McKinnon et al. (2016) reported that loneliness was one of the main risk factors for suicidal ideation among adolescents. Empirical evidence (Brighi et al., 2012; Hong et al., 2015; Sahin, 2012) has suggested that most adolescents who are bullied or cyberbullied, both boys and girls, tend to experience higher loneliness (attributed itself to a lack of social connectedness). This effect, in turn, served as a vulnerability factor for suicidal ideation. It is well-established that adolescents who suffered from traditional bullying and cyberbullying reported increasing levels of negative emotions (e.g., sadness and loneliness feelings over time; Moore et al., 2017). Recently, Iranzo et al. (2019) found that cybervictimisation can have an indirect effect on suicidal ideation through loneliness, depressive symptomatology, perceived stress, and psychological distress. Thus, loneliness, among other relevant variables, appears to be a relevant mediator bridging the gap between bullying involvement and suicidality (Hong et al., 2015; Iranzo et al., 2019).

Emotional intelligence (EI) is considered a potential protective mechanism for individuals facing stressful social events such as bullying or cyberbullying (e.g., Elipe et al., 2015; Extremera et al., 2018; Quintana-Orts et al., 2019). It is defined as a system of mental abilities for processing emotional information to promote problem-solving in areas related to one's affect, specifically "(1) perceive emotions accurately, (2) use emotions to accurately facilitate thought, (3) understand emotions and emotional meanings, and (4) manage emotions in themselves and others" (Mayer et al., 2016, p. 291). There is a paucity of studies examining the association between suicide and EI in adolescence (Domínguez-García & Fernández-Berrocal, 2018), and even less in contexts of traditional bullying and cyberbullying. However, some findings (e.g., Baroncelli & Ciucci, 2014; Davis & Humphrey, 2012; Domínguez-García & Fernández-Berrocal, 2018;

Estévez et al., 2019; Extremera et al., 2018; Quintana-Orts et al., 2019) have suggested that EI may be an important protective factor against the detrimental effects of bullying and cyberbullying victimisation, by promoting more positive ways of coping with stressful situations.

Recent research using adolescent participants (Estévez et al., 2019; Gomez-Baya et al., 2017; Martins et al., 2010) has found that individuals high in EI are more likely to deal appropriately with negative events than their lower-EI peers. Such effects have been attributed to this group's superior affective perceptions which, in turn, reduce the risk of negative mood states and emotional problems. In some studies (Davis et al., 2019; Wols et al., 2015), EI abilities predicted lower levels of loneliness over time. It was posited that emotional skills may buffer against loneliness, in particular among adolescents. Several earlier studies (e.g., Lopes et al., 2004; Lopes et al., 2003; Mavroveli et al., 2007) found a positive relationship between EI and the quality of and satisfaction with social relations, social well-being, and perceived social competence – even in adolescence.

Additionally, previous studies (Domínguez-García & Fernández-Berrocal, 2018) have suggested that EI is an important protective factor against suicidal ideation among adolescents. This relationship was also found in bullying and cyberbullying contexts (Elipe et al., 2015; Quintana-Orts et al., 2019). Regarding cyberbullying, Elipe et al. (2015) found that EI is a potential moderator in the relationship between cyberbullying victimisation and its emotional problems, suggesting that developing emotional skills might be a way of reducing the negative consequences of victimisation. In the same vein, EI was found to moderate the association of cybervictimisation and suicidal thoughts and behaviours (Extremera et al., 2018), supporting EI as a buffer against the negative impact of cybervictimisation. Similarly, Quintana-Orts et al. (2019) found that EI was a predictor of decreased suicidal ideation in a sample of adolescent victims, and that this relationship was partially mediated by depressive symptomatology. However, there has thus far been limited research examining the mechanism linking EI to suicide risk among samples of adolescents in the context of both traditional bullying and cyberbullying.

Given the evidence, loneliness and EI both play important roles in the development of suicidal ideation, but the possible influence of these mechanisms on the phenomenon is not clear with respect to adolescents who suffer from traditional victimisation and cybervictimisation. There has been little attention given to the role of loneliness as a mediator of the relationship between different types of bullying and suicidal ideation. Moreover, there has been even less attention given to EI's potential moderation of these relations. Therefore, the present research aims to (1) explore whether EI buffers the association between peer victimisation, loneliness, and suicidal ideation and (2) evaluate a moderated mediation model for these relationships (see Figure 1). Additionally, as traditional victimisation and cybervictimisation are directly related to each other (Cross et al., 2015; Iranzo et al., 2019), this study did control for the other form of peer victimisation.

Based upon reviewed evidence, we hypothesised that loneliness might work as a mediator between both forms of peer victimisation (i.e., traditional victimisation and cybervictimisation) and suicidal ideation among adolescents (Hypothesis 1). We further posited that EI might play a role as a moderator in the direct and/or indirect effect of both forms of peer victimisation on suicidal ideation (Hypothesis 2).
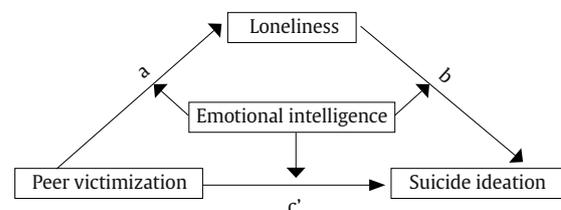

Figure 1. Proposed Model Linking Peer Victimization (both Traditional Victimization and Cybervictimization), Loneliness, and EI to Suicide Ideation.

Method

Participants

This cross-sectional survey was presented in the context of a larger project performed from December 2017 to March 2018, using a non-probabilistic and convenience sample. Participants in the present study were 1,929 (1,014 girls, or 52.6%) adolescents, all students who attended nine state-run schools in Andalusia, Spain. Ages ranged from 12 to 19 years, with a mean age of 14.65 (*SD* = 1.79). Percentages of adolescents in first, second, third, and fourth grades of secondary education were 17.5%, 18.5%, 16.3%, and 16.2%, respectively. A percentage of students were in the last grades of post-obligatory education (18.1% in first and 11.4% second grades) and in medium-level vocational training (1.8%).

Variables

Suicidal ideation. The Frequency of Suicidal Ideation Inventory (FISS; Chang & Chang, 2016; Spanish version by Sánchez-Álvarez et al., 2020) was administered to assess how frequently participants have considered suicidal thoughts over the previous 12 months (e.g., "How often have you believed that your life was not worth living?"), using five items. Response options consisted of a 5-point Likert-type scale ranging from 1 (*never*) to 5 (*almost every day*). Greater scores on the FISS indicate higher suicidal ideation frequency. The FISS showed a high internal consistency in this study (Cronbach's α = .89).

Loneliness. Loneliness was measured using the UCLA Loneliness Scale (version 3; Russell, 1996; Spanish version by Velarde-Mayol et al., 2016). This instrument consists of 10 items measuring feelings of loneliness experienced in interpersonal relationships (e.g. "I am unhappy being so withdrawn"). Response options are made on a 4-point Likert-type scale, from 1 (*never*) to 4 (*often*). Higher scores were indicative of more intense feelings of loneliness. The scale's Cronbach α was .88 in the current study.

Traditional victimisation. Traditional bullying victimisation was captured with seven items of the European Bullying Intervention Project Questionnaire (EBIPQ; Spanish version by Ortega-Ruiz et al., 2016), an instrument that measures whether the participant has been a victim of particular bullying behaviours in the previous 2 months. An example item is "Someone has insulted me". Responses are made on a 5-point Likert-type scale that ranges from 0 (*never*) to 4 (*more than once a week*). In this study, Cronbach's α for the EBIPQ was .81.

Cybervictimisation. Cyberbullying victimisation was captured with 11 items of the European Cyberbullying Intervention Project Questionnaire (ECIPQ; Del Rey et al., 2015; Spanish version by Ortega-Ruiz et al., 2016) to assess whether the participant had been a cybervictim of particular online behaviours in the previous 2 months. An example item is "Someone posted personal information about me online". Responses are made on a 5-point Likert-type scale ranging from 0 (*never*) to 4 (*more than once a week*). The ECIPQ showed high internal consistency in this study (Cronbach's α = .84).

Emotional intelligence. The Wong and Law Emotional Intelligence Scale (WLEIS; Wong & Law, 2002; Spanish version by Extremera et al., 2019) was administered to assess overall EI. The WLEIS consisted of 16 items which measured four conceptually-related EI dimensions: self-emotional appraisal (SEA), others' emotional appraisal (OEA), regulation of emotion (ROE), and use of emotion (UOE). Sample items include "I have a good sense of why I have certain feelings most of the time" and "I am sensitive to the feelings and emotions of others". Response options consisted of 7-point Likert-type items from 1 (*strongly disagree*) to 7 (*strongly agree*). We used the total score in this study due to our interest in the overall EI construct. The WLEIS showed high internal consistency in this study (Cronbach's α = .86).

Procedure

Ethics approval for the study was obtained from the Research Ethics Committee of the hosting university prior to data collection. To recruit the sample, several schools in the Region of Andalusia were contacted and asked to participate. School participation was completely voluntary and previous family consent was required for youngsters to be included in the study. Questionnaires were completed in school classrooms between December 2017 and March 2018; the process was supervised by a member of the research team and a school teacher. At the beginning of sessions, instructions on completing pencil-and-paper questionnaires were given. Anonymity and confidentiality of all participant data were safeguarded. Moreover, students were informed that they could withdraw from the study at any time point.

Analyses

Statistical analyses were carried out using the SPSS 24 statistical package. To address missing values, a multiple imputation method was conducted. Preliminary analyses were conducted prior to main analyses to ensure no important violation of assumptions of linearity, independence, multicollinearity, normality, and homoscedasticity. Descriptive statistics and correlations are presented in Table 1. Mediation and moderated-mediation analyses were conducted using SPPS macro PROCESS (Hayes, 2017). Due to heteroscedasticity, HC3 heteroscedasticity-consistent standard error estimators (Hayes, 2017) were used in testing significance of direct and indirect effects, as well as interaction terms. The bootstrapping method (Hayes, 2017) was used, producing bias-corrected 95% confidence intervals (CI) of the effects from 10,000 resamples of data.

To test our research hypotheses, we conducted a series of analyses. Firstly, we tested whether the association between traditional victimisation/cybervictimisation and suicidal ideation was mediated by loneliness using Model 4 from SPSS macro PROCESS (see Figure 1). If the 95% CI of indirect effect did not include zero, it indicated that the mediating effect was significant at α =.05. Second, Model 59 was applied to examine the moderated mediation effect that was whether EI moderated direct and indirect effects of traditional victimisation/cybervictimisation on suicidal ideation (see Figure 1). Similarly, a significant moderated mediation effect could be established at α =.05 if the 95% CI of the interaction did not contain zero. All continuous independent variables (except age) were mean centered. Finally, we used an extension of Johnson-Neyman's technique to analyse significant interactions for regions of significance (Carden et al., 2017). In all analyses, we controlled for sex, age, and any other forms of victimisation. Sex and age were entered in the analysis as known covariates of cybervictimization and mental health outcomes (Kowalski et al., 2014; Moore et al., 2017).

Results

Preliminary Analyses: Descriptive Statistics and Correlations

Table 1 provides Pearson's correlations, means, and standard deviations among variables studied. Results indicated that both forms of bullying were negatively related to suicidal ideation. Loneliness was negatively associated with EI and positively correlated with suicidal ideation. In addition, EI had a significantly negative relation to suicidal ideation and a significantly negative association to traditional form of victimisation.

Mediation Analysis

Hypothesis 1 predicted that loneliness would mediate the association between both peer victimisation and suicidal ideation.

Table 1. Correlations and Descriptive Statistics among the Study Variables

	1	2	3	4	5	M ± SD	Min - max
1. Traditional victimization	-					0.61 ± 0.66	0-4
2. Cybervictimization	.57***	-				0.17 ± 0.34	0-3.45
3. Loneliness	.33***	.23***	-			1.90 ± 0.64	1-4
4. Suicidal ideation	.36***	.29***	.48***	-		8.23 ± 3.96	5-25
5. Emotional intelligence	-.07**	-.04	-.25***	-.27***	-	4.81 ± 0.94	1.19-7

Note. M = mean; *SD* = standard deviation.
**p* < .01, ***p* < .001.

Model 4 of the PROCESS macro (Hayes, 2017) was used to test this hypothesis for both forms of peer victimisation.

Regarding traditional bullying, results showed that the coefficient of path a and path b were significant, indicating positive associations of traditional victimisation on loneliness b = 0.29, *SE*(HC3) = 0.03, *p* < .001, and loneliness on suicidal ideation b = 2.34, *SE*(HC3) = 0.16, p < .001, respectively. The total effect (path c) of traditional victimisation on suicidal ideation was significant b = 1.80, *SE*(HC3) = 0.19, p < .001. The direct effect (path c') remained significant b = 1.11, *SE*(HC3) = 0.18, *p* < .001, and the indirect effect (path ab) did not contain zero (b = 0.69, *SE*boot = 0.08, 95% CI [0.54, 0.86]), showing that loneliness partially mediated the relationship between traditional victimisation and suicidal ideation. The final model accounted for 30% of the variance in suicidal ideation.

With regard to cyberbullying, results of mediation analyses showed significant coefficient of path a, b = 0.11, *SE*(HC3) = 0.06, *p* = .07, and path b, b = 2.34, *SE*(HC3) = 0.16, *p* < .001, indicating no association of cybervictimisation with loneliness, and a positive

link of loneliness with suicidal ideation. The total effect (path c) of cybervictimisation on suicidal ideation was significant, b = 1.30, *SE*(HC3) = 0.42, *p* < .01. Moreover, the direct effect (path c') of cybervictimisation on suicidal ideation b = 1.06, *SE*(HC3) = 0.38, *p* < .01 was also significant. The point estimate of indirect effect (path ab) between cybervictimisation and suicidal ideation through loneliness was 0.25 (*SE*boot = 0.13), the 95% bias-corrected bootstrap confidence interval contained zero (95% CI [-0.10, 0.52]), indicating that the indirect effect of cybervictimisation on suicidal ideation was not statistically significant.

Taking together both results, *H*1 was only supported for traditional victimisation.

Moderated Mediation Analyses

As we found that loneliness did not mediate the association involving cybervictimisation and suicidal ideation, we did test the

Table 2. Coefficients for the Tested Moderated Mediation Model in Traditional Bullying

	IV = Traditional victimization			
	Coeff.	SE(HC3)	ΔR²	95% CI
ME = Loneliness	R^2 = .18; F(HC3) (6, 1918) = 57.065***			
Constant	-0.59***	0.12		-0.83 to -0.35
Sex (CV)	0.09***	0.03		0.04 to 0.15
Age (CV)	0.03***	0.01		0.01 to 0.04
Cybervictimizacion (CV)	0.12*	0.05		0.02 to 0.22
Traditional victimization (IV)	0.27***	0.03		0.22 to 0.32
EI (MO)	-0.15***	0.02		-0.18 to -0.12
Victimization x EI	-0.08**	0.02	.006**	-0.12 to -0.03
DV = Suicidal ideation	R^2 = .33; F(HC3) (8, 1916) = 76.414***			
Constant	4.98***	0.63		3.73 to 6.22
Sex (CV)	0.77***	0.15		0.48 to 1.06
Age (CV)	0.12**	0.04		0.04 to 0.20
Cybervictimization (CV)	1.14**	0.37		0.41 to 1.87
Traditional victimization (IV)	1.06***	0.17		0.72 to 1.40
Loneliness (ME)	2.03***	0.15		1.74 to 2.32
EI (MO)	-0.63***	0.09		-0.80 to -0.45
Victimization x EI	-0.24	0.17		-0.58 to 0.09
Loneliness x EI	-0.54**	0.17	.008**	-0.88 to -0.21

Note. N = 1,925. All continuous independent variables (except age) were mean centered; unstandardized regression coefficients; *SE*(HC3) = heteroscedasticity-consistent standard error; 95% CI = confidence interval with lower and upper limits.
p* < .05, ** *p* < .01, * *p* < .001.

moderated mediation model for traditional victimisation (Model 59; Hayes, 2013). Therefore, Table 2 displays the results of moderated mediation considering traditional victimisation.

Hypothesis 2 predicted that EI may function as a moderator between traditional victimisation and suicidal ideation either separately or both in the direct effect (traditional victimisation-suicidal ideation) and indirect effect (path a: traditional victimisation-loneliness and path b: loneliness-suicidal ideation).

As shown in Table 2, EI did not play a moderating role in the direct effect (traditional victimisation-suicidal ideation) of the mediation model, traditional victimisation * EI: b = -0.24, *SE*(HC3) = 0.17, 95% CI [-0.576, 0.094]. The results of moderated mediation showed that EI moderated the indirect effect of traditional victimisation on suicidal ideation symptoms through loneliness (traditional victimisation-loneliness, b = -0.08, *SE*(HC3) = 0.02, 95% CI [-0.121, -0.032]; loneliness-suicidal ideation, b = -0.54, *SE*(HC3) = 0.17 , 95% CI [-0.875 -0.214], signifying that the indirect effect of loneliness on traditional victimisation and suicidal ideation was moderated by EI among adolescents. This model accounted for 33% of the variance in suicidal ideation.

To sum up, EI moderated indirect paths of the mediation process for traditional victimisation: path a (the impact of traditional victimisation on loneliness), path b (the impact of loneliness on suicidal ideation). Thus, for traditional victimisation, the results partially supported Hypothesis 2.

The full moderated mediation model was further tested by examining the indirect effect of traditional victimisation on suicidal ideation at different levels of EI. This factor was divided into low (mean minus one *SD*) and high (mean plus one *SD*). Loneliness significantly mediated the association between traditional victimisation and suicidal ideation when EI was low (b = 0.87, SE_{boot}= 0.12, 95% CI [0.654, 1.122]), medium (b = 0.55, SE_{boot}= 0.07, 95% CI [0.423, 0.696]), and high (b = 0.30, SEboot= 0.07, 95% CI [0.181, 0.449]). Johnson-Neyman's technique was used to determine in which regions in the range of the moderator variable (EI) the effects were statistically significant and nonsignificant (Carden et al., 2017; Hayes & Rockwood, 2017). Specifically, Johnson-Neyman's approach investigates "regions of significance" for the range or ranges of the moderator (i.e., EI) where the predictor is statistically significant and nonsignificant related to the consequent. This approach eludes the matter of arbitrarily chosen values for the moderator before probing the interaction as Johnson-Neyman's technique provides information
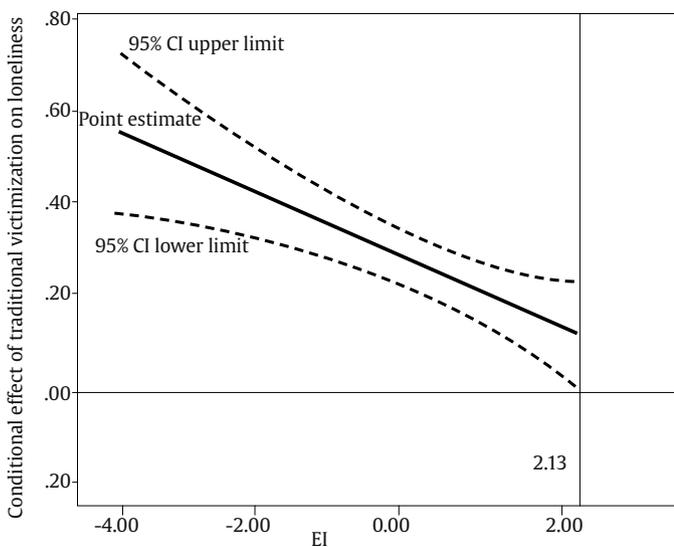

Figure 2. Effect of Traditional Victimization on Loneliness with Johnson-Neyman Confidence Bands.
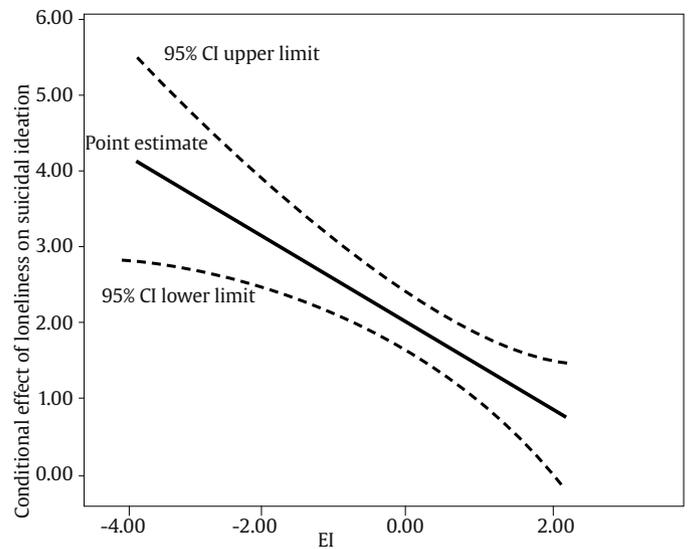

Figure 3. Effect of Loneliness on Suicidal Ideation with Johnson-Neyman Confidence Bands.

about the statistical significance of the effect of the predictor for all values of the moderator one could choose (Hayes & Rockwood, 2017).

As Figure 2 shows, Johnson-Neyman's technique indicated that EI could moderate the relationship between traditional victimisation and loneliness when EI standard scores were lower than 2.13, in which a 95% CI did not include zero. Similarly, Figure 3 indicates that EI could moderate the association between loneliness and suicidal ideation at any value.

Discussion

Research suggests that being bullied is associated with increased risk for suicidal ideation (e.g., Holt et al., 2015; Mitchell et al., 2018) and that this relationship is mediated by loneliness (e.g., Iranzo et al., 2019). Previous studies have identified EI as a mitigating factor against emotional problems and promoting psychological adjustment (Davis et al., 2019; Gomez-Baya et al., 2017), even in the context of suicidal ideation (Domínguez-García & Fernández-Berrocal, 2018; Quintana-Orts et al., 2019). Thus, the main objective of the current research was to analyse the relationships between two types of peer victimisation (traditional victimisation and cybervictimisation) and suicidal ideation in adolescents. Our results revealed a strong positive correlation between both forms of peer victimisation and suicidal ideation, which is consistent with previous studies (Hinduja & Parchin, 2018; Hong et al., 2015). In our study, however, traditional victimisation (but not cybervictimisation) has an indirect effect on suicidal ideation through loneliness (partial mediation). Furthermore, for traditional victimisation, indirect effects of the mediation model were moderated by EI. The pathways of our moderated mediation model contribute to the literature toward prevention and treatment of suicidal ideation among adolescents who have suffered from traditional bullying.

Hypothesis 1. Mediation by Loneliness

With regard to Hypothesis 1, we observed that loneliness significantly mediated the relationship between peer victimisation and suicidal ideation. These results are consistent with previous findings (e.g., Iranzo et al., 2019) showing the mediating role of loneliness in the relationship between peer victimisation and suicidal thoughts and behaviours. This suggests that loneliness is a relevant mechanism linking traditional victimisation and suicidal ideation.

Although the cross-sectional nature of our data does not allow causal conclusions, some recent findings (Hong et al., 2015; Iranzo et al., 2019) support the notion that loneliness is a consequence of victimisation rather than a cause. Using Joiner's (2005) interpersonal theory of suicide, after experiencing traditional victimisation, adolescents may be frustrated when their desire to connect with others is not fulfilled. Loneliness and social isolation may ensue (i.e., thwarted belongingness) which, in turn, would heighten the risk of suicidal ideation (see Arango et al., 2018; Hong et al., 2015; McKinnon et al., 2016).

By contrast, loneliness did not mediate the relationship between cybervictimisation and suicidal ideation, when controlling for traditional victimisation. This finding may be explained in part by the type of loneliness typically experienced in both modalities of bullying. According to Brighi et al. (2012), peer loneliness was a significant predictor of traditional victimisation, whereas parent loneliness was associated with cybervictimisation. In this study, we used UCLA Loneliness Scale Version 3 (Russell, 1996; Velarde-Mayol et al., 2016). Some versions of this instrument have been associated only with peer-related loneliness (Goossens et al., 2009), as peer-related variables were found to be better predictors of loneliness levels in adolescence (Uruk & Demir, 2003). It may be that this version of the UCLA Loneliness Scale is more sensitive than others to intimate and relational peer loneliness, as may be connected with traditional victimisation. So, it appears that adolescents who are victimised at school experience more lack of close peer relationships and connectedness as well as a sense of loneliness and physical isolation – factors that make them more vulnerable to suffering mental problems (Arango et al., 2018; Calati et al., 2019; Leigh-Hunt et al., 2017). At the same time, some authors suggest that individuals who wish to decrease feelings of loneliness and social isolation sometimes find refuge on the Internet as an opportunity to manage and develop relationships, and this make them more vulnerable to threats such as cyberbullying (Kokkinos & Antoniadou, 2019). In line with this research, it is tentative to assume that loneliness is a cause of cybervictimisation: adolescents bullied at schools who develop feelings of loneliness may become vulnerable to cybervictimisation by turning to the Internet to achieve satisfying social relations. It would be of interest to delve into the contribution of loneliness with longitudinal designs to test our results on traditional victimisation and cybervictimization.

In sum, our results suggest that traditional victimisation is more likely to lead to the sense and feelings of isolation compared to cybervictimisation. Therefore, the negative impact of traditional victimisation seems to cause a higher state of loneliness in victims, and this desperation and isolation is directly related to suicidal thoughts. Although this finding deserves replication, it may give interesting indications of differing impacts of traditional and cybervictimisation, opening new lines of research for future work on the differential role of loneliness across the contexts where bullying takes place and, as well, the various types of bullying.

Hypothesis 2. Moderation by Emotional Intelligence

As hypothesised, this study partially supported that EI moderated the parts of the mediation process. In particular, EI was found to buffer the impact of traditional victimisation on loneliness and the impact of loneliness on suicidal ideation, but not the residual direct relationship between traditional victimisation and suicidal ideation. These indirect patterns are consistent with previous findings (Elipe et al., 2015; Extremera et al., 2018) suggesting that EI might serve as a potential protective factor after bullying experiences. Specifically, according to our results, it is possible that EI serve as a buffer in a more indirect way, by reducing negative feelings and states associated with traditional victimization that, in turn, decrease

suicide thoughts.

According to the Johnson-Neyman's technique, it seems that with increasing EI the link between traditional victimisation and loneliness grows weaker. In the same vein, this weakened or buffer effect seemed to occur for the relation of loneliness to suicidal ideation. Associations between EI and negative emotions and emotional problems have been reported in adolescence (Davis & Humphrey, 2012; Gomez-Baya et al., 2017) and in bullying contexts (Baroncelli & Ciucci, 2014; Quintana-Orts et al., 2019). Previous empirical evidence (Baroncelli & Ciucci, 2014; Domínguez-García & Fernández-Berrocal, 2018; Quintana-Orts et al., 2019; Rey et al., 2019) suggests that EI reduces emotional problems by experiencing less emotional distress when dealing with a stressful situation such as being bullied. Thus, adolescents with greater EI skills, even when reporting high loneliness feelings, were less likely to show symptoms of suicidal ideation in comparison with those students whose EI scores were lower. However, when EI increased to a certain value, the association between traditional victimisation and loneliness (at the standard score of 2.13 and over) had no statistical significance. Taken together, these results suggest that it is crucial to implement policies and measures at schools to improve EI in order to eventually reduce feelings of loneliness among adolescents who are suffering traditional victimisation. Moreover, our findings might also indicate that, even if victimized adolescents feel alone, their EI skills might help them to deal with the situation in a more healthy way, which in turn might reduce the development of suicide thoughts.

Limitations

Our findings should be interpreted in light of various limitations that suggest future areas of research. First, although our proposed moderated mediator model is rooted in theory, longitudinal and prospective research are required to establish causal associations among the variables analysed. Second, although data were collected from a quite large sample, the results are based on self-reports. Future studies should utilise objective (e.g., performance-based) measures of EI rather than the former. In addition, in our study, sex and age were controlled as well-known socio-demographic factors in the relationship between bullying and health outcomes (e.g., Moore et al., 2017). Therefore, future research should explore sex, age, or grade differences in more detail, including changes in light of these factors. Finally, we did not consider other well-known mediators in the relationship between victimisation and suicidal ideation (e.g., perceived stress, depressive symptomatology). Although data supported the hypothesised relationship among traditional victimisation, loneliness, and suicidal ideation, this association should be explored on a broader spectrum, considering more emotional and social variables (e.g., social connectedness, social support) and examining the relative contribution of self- and other-focused emotional abilities to gain a deeper understanding of interpersonal EI abilities as a buffer against the impact of traditional bullying and cyberbullying. In this sense, more integrative models using more complex statistical analysis tools are required to delve into co-occurrence of both phenomena and causal relationships with mental health problems.

Notwithstanding its limitations, to our knowledge, the present study is the first to examine relationships and mechanisms linking peer victimisation, loneliness, suicidal ideation, and EI in a sample of adolescents in the context of both traditional victimisation and cybervictimisation.

Conclusions

To date, no such study linking EI and suicidal ideation with the concept of loneliness in traditional and cyberbullying victimisa-

tion has been published. Therefore, these findings may shed new light on these complex relationships as well as offer a theoretical model of the mechanisms involved in identifying "at low and high risk" adolescents who have experienced bullying. On the one hand, the present study highlights the role of loneliness as an important mechanism linking victimisation and suicidal ideation, but only for traditional bullying. Although future studies are necessary to render an exhaustive understanding of the role of loneliness, our findings suggest that loneliness may play various roles in peer victimisation: as a consequence of traditional victimisation and a cause of cybervictimisation. On the other hand, EI was found to moderate the indirect relationship between traditional victimisation and suicidal ideation through loneliness. Thus, adolescents with high emotional skills would present lower consequences after experiencing traditional victimisation. Although results call for replication and broader research, the present study suggests EI and loneliness as potential intervention targets. In conclusion, findings are congruent with the interpersonal theory of suicide; moreover, they support prior evidence regarding the importance of EI for the prevention of suicide and loneliness in adolescents who have suffered bullying.

Conflict of Interest

Acknowledgments

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