

# Sociometric Status in Bullying Perpetrators: A Systematic Review

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Numerous studies have analyzed the relationship between sociometric status and bullying but it is difficult to reach a consensus regarding this issue.

**Objective:** The present study carried out a systematic review on the sociometric status of adolescent bullies.

**Design:** The bibliographic search was carried out in the mainly databases.

**Results:** The findings of 29 studies selected defend three positions. First, bullying is associated with the popular status in their peer group. Second, rejected or unpopular adolescents tend to perpetrate bullying as a response to the frustration generated by their status. Finally, other group the perpetrators of bullying is among these two poles.

**Conclusions:** The students' sociometric status is necessary for designing bullying intervention programs at school.

Keywords: sociometry, social status, bullying, bully role, systematic review

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### INTRODUCTION

Adolescence is a period in which profound biological and social changes take place that have important implications for the development of young people. A large part of studies emphasizes the importance of the social changes typical of this stage, given the greater time dedicated to interactions with peers, especially at school (Shin, 2017; Muscatell et al., 2018). As children enter adolescence and begin to form more sophisticated social relationships and compare themselves socially, they become more susceptible to the opinions of others, and the need to "fit in" with the group increases (Veenstra and Laninga-Wijnen, 2022). Thus, at this stage, the position or status, referring to the degree of rejection or social acceptance that an adolescent receives from their peers, becomes a priority (Jiménez et al., 2008; Closson and Hymel, 2016), and is a key aspect for their socio-emotional adjustment (Hoffman et al., 2015).

# Sociometry Status

One of the most widely used methodologies to assess the status that an individual presents to their peers is sociometry, which was developed by Moreno (1934). This theory was proposed to investigate, quantify, and qualify interpersonal relationships and social dynamics within the group (Zequinão et al., 2020). For this reason, sociometry is considered one of the most used methods to determine the integration of students in the classroom when evaluating the acceptance and rejection relationships between classmates based on a pre-established criterion (Bacete and Cillessen, 2017; Manring et al., 2018). That is, this methodology allows establishing an organization within the peer group based on the degree of liking and disliking of an adolescent within the peer group (Janošević and Petrović, 2019; Kulawiak and Wilbert, 2020; León-Moreno et al., 2021).

Studies using sociometric methods have identified several different types of profiles obtained from the combination of acceptance and rejection scores (Coie and Cillessen, 1993; Stotsky and Bowker, 2018): (1) Popular status reflects the degree to which the young adolescent is perceived by peers to be popular; (2) Preferred status reflects the degree to which the young adolescent is highly liked (and not disliked) and accepted by peers (Engels et al., 2017; Stotsky and Bowker, 2018). Even though these two profiles correlate with each other, during adolescence, they should be considered as two different concepts (Rubin et al., 2006). This is because, when social status is measured in the adolescent population, popularity refers to social dominance, power and visibility among their peers; and social preference (also known as "acceptance") is considered an indicator of sympathy (Shin, 2017). However, both concepts are not always considered independently; (3) Rejected status, in contrast, classifies young people who are not like by most of their peers (Farmer et al., 2011); (4) Controversial status includes students who receive high levels of acceptance and rejection, that is, they generate liking for some, and disliking for others; (5) Ignored status identifies students who receive low nomination rates, both liked and disliked, by their peers; (6) Finally, average status is found in those young people who do not receive high scores either on the positive characteristics characteristic of preferred adolescents or on the negative characteristics that characterize rejected adolescents; that is, they do not seem to stand out, although they are more visible than ignored students (Rubin et al., 2009).

In this sense, sociometric status offers the opportunity to categorize social status as positive, for the popular and preferred profile, and negative, for the rejected and ignored profile (Cerezo, 2014; Mikhailova et al., 2018). In this way, status can also be considered an indicator of the reputation adolescents achieve within the peer group (Emler and Hopkins, 1990). According to the Reputation Enhancement Theory of Emler and Reicher (1995), at this stage of development, establishing, maintaining, and improving reputation is essential. Thus, for this purpose, adolescents choose a particular self-image with which to make this reputation public through visible actions in the peer group, which, in turn, becomes a key factor for the regulation of social behavior (Bartolomé and Díaz, 2020). Diverse research have shown that, for some adolescents, positive reputation and status is achieved through involvement in transgressive and violent behaviors in the classroom (Emler, 1990; Carroll, 1995; Emler and Reicher, 1995, 2005; Carroll et al., 1996, 1997, 1999; Cava and Musitu, 2002; Kerpelman and Smith-Adcock, 2005; Estévez et al., 2012; Sánchez et al., 2012). Among these behaviors, bullying is noted as a group problem in the literature (Sekol and Farrington, 2013; Garandeau and Lansu, 2019; Harrison et al., 2021) that is receiving increasing attention over the last decade in terms of prevalence and consequences (Williams et al., 2018). This behavior has been described as a form of violence between peers that is characterized by the repetition of harmful behavior over time, by the intention of hurting or causing suffering to another, and by the imbalance of power between those involved (Rocha et al., 2013; Graham, 2016; Menéndez and Fernández-Río, 2018).

# **Sociometric Status in Bullying Behavior**

Therefore, non-normative behavior can be used by adolescents as a coercive strategy to establish and maintain higher positions in the social hierarchy, such as a dominant position (Malamut et al., 2020; Wright and Wachs, 2021) or leader in the group (Pronk et al., 2013; Herrera et al., 2019). Some studies on bullying in adolescents have shown that a significant percentage of bullies are considered popular by their peers (Guy et al., 2019; Hartl et al., 2020). Likewise, other studies indicate that popular adolescents may be particularly susceptible to engaging in bullying, as they believe they have sufficient support from their peers to implement this type of behavior (Duffy et al., 2017). Although the study of social position in the group process of bullying is a topic that arouses interest in the scientific literature, the findings available so far continue to be controversial, especially about the role of bully.

On the one hand, the results' controversy lies in the differences observed in terms of popularity and social preference in adolescence. Several studies reveal that popular adolescents who bully their peers sometimes obtain a lower social preference in the group compared to those not involved in bullying behavior (Vaillancourt et al., 2003; Caravita et al., 2009). In other words, although the bullies may be considered popular, this does not imply that they are necessarily accepted. In this sense, it is not surprising that diverse authors conclude that a significant percentage of bullying perpetrators have a controversial status within the peer group (Sentse et al., 2007, 2013). According to the literature, this status can be understood by the fact that bullies may arouse rejection in those who are the target of their bullying behaviors, but they may be admired by those who do not suffer this behavior. For some studies, the duality of status achieved by the perpetrators is not casual, as, in most cases, those involved in the bully role know from whom they can receive support, and from whom they cannot, who are the ones who become victims (Reijntjes et al., 2018). Therefore, bullies do not seek global acceptance from the classroom, but only from their reference group (Goossens et al., 2006), which reinforces the repetition of bullying (Huitsing and Veenstra, 2012; Reijntjes et al., 2018).

Although the study of sociometry in bullying provides important information about the relationship between bullying behavior and social interactions within the classroom, the studies available so far do not provide a clear picture of the bully's social position. As mentioned, general behavioral trends may not be appropriate to explain the differences in status between members of the peer group, as it may be the combination of bullying behaviors along with other factors that differentiate adolescents with a positive status from the rest of their classmates. Likewise, the fact that adolescents increasingly value reaching a position of liking in the group and consider bullying as an effective means to achieve it shows the need to deepen and understand the profile of those involved in this behavior to develop interventions aimed at preventing or reducing bullying. Therefore, the objective of this study was to carry out a systematic review of studies focused on analyzing the sociometric status and/or social position of the adolescent aggressors of some type of bullying.

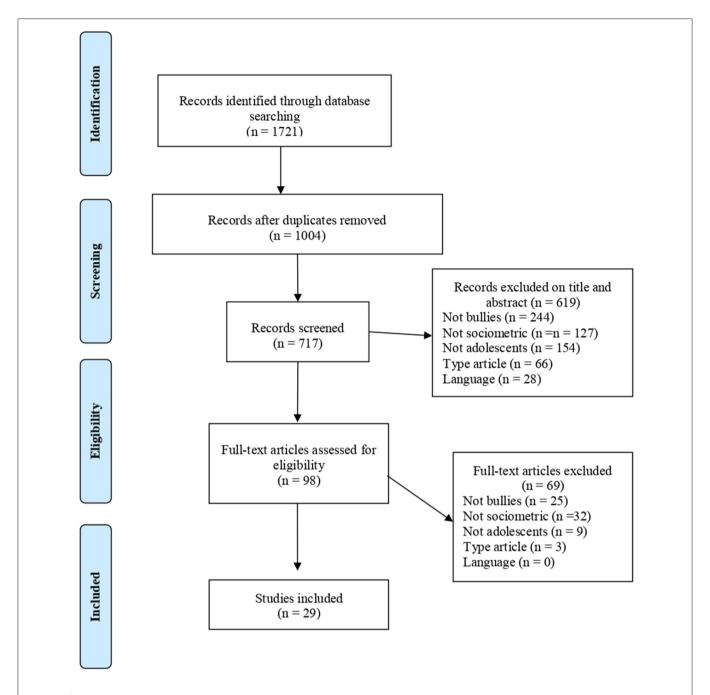


FIGURE 1 | PRISMA flow of information through the different phases of a systematic review. Exclusion criteria: Not bullies: studies not investigating bully role nor bullying in school; Not sociometric: studies not investigating social status through sociometric measures; Not adolescents: studies not involving adolescent pa1ticipants; Type article: non-quantitative studies or scientific articles; Language: study not written in English or Spanish.

### **METHODS**

The review was prepared following the PRISMA guidelines, for which definitions have been adopted from the Cochrane Collaboration. The purpose of these guidelines is to ensure that the articles included are reviewed in their entirety in a clear and transparent manner. **Figure 1** shows the flow diagram with the

four phases recommended by the PRISMA guidelines, in which the inclusion/exclusion of each article is detailed.

### Search Strategy

A systematic search of materials published in the last 20 years (from 2001 to the present) was performed by consulting the following electronic databases: PsychInfo, Scopus, PubMed, and

Web of Science. The search strategy was developed for each database using the combination of the terms such as bully\*, perpetrat\*, sociometric, peer status, popular\*, reject\*, prefer\*, neglect\*, controversial, and school. The search terms were used in combination with each other to narrow the search results.

Initially, duplicates were removed from the total number of identified records. Abstracts from the remaining references were screened to retrieve full-text manuscripts. Finally, studies fulfilling the inclusion criteria were selected for assessment.

### **Inclusion and Exclusion Criteria**

The search was limited according to the following inclusion criteria:

- (1) Studies about bullying.
- (2) Studies whose aims (at least one) were to analyze the social status or social position of bullies or perpetrators of bullying at school.
- (3) Studies in which the participants were (pre)adolescents (from 9 to 18 years) enrolled in middle and high school or secondary education study centers.
- (4) Quantitative and qualitative studies or scientific articles in which the design was cross-sectional or longitudinal.
- (5) Articles in Spanish or English, due to difficulties in translating articles in other languages.

The exclusion criteria contemplated in the search were:

- (1) Studies investigating other bullying roles or other aggression types.
- (2) Studies investigating the social status or social position not linked to bullying or the role of bully.
- (3) Studies involving infant or adult participants, as well as students in primary or university education.
- (4) Reviews, editorials, theoretical articles, gray literature (file drawer studies, unpublished manuscripts), dissertations, books, case studies, and conference proceedings without conference articles available in the databases.
- (5) Articles in languages other than Spanish and English.

## **Study Selection Process**

After compiling the manuscripts, we classified the studies, identifying those that met the inclusion criteria. For each of the studies, we extracted the following information: author and year of publication, study methodology, sample information, instruments for collecting data, key findings, and conclusions. These data were extracted by a researcher and verified by a second researcher to ensure the quality and accuracy of the information. Doubts or disagreements between evaluators were resolved through discussion and consensus with the help of a third reviewer. The results of this selection process are reported below.

# Methodological Characteristics of the Included Studies

A modified version of the Quantitative Research Assessment Tool, developed by the Child Care and Early Education Research Connections (CCEERC, 2013), was used to assess the methodological strength of the studies included in this review.

This tool, which includes 12 items, was designed to provide general guidelines evaluating the quality of research studies. For this review, we selected five items from the tool (items 2, 3, 6, 9, and 10): "Randomized Selection of Participants," "Sample Size," "Operationalization of Concepts," "Appropriateness of Statistical Techniques," and "Omitted Variable Bias" (see Table 1). Item 1 ("Population") was discarded because it was not considered relevant for the review, as all studies focused on a specific subset of the population (adolescents) and, as most of the studies were cross-sectional, we also excluded Item 4 ("Attrition Rate and Follow-up Studies"). Given that we considered the operationalization of the variables of each of the studies to analyze the methodological quality, we also discarded Item 5 ("Main Variables or Concepts") to avoid redundant information. Finally, Item 7 ("Numeric Tables"), Item 8 ("Missing Data"), Item 11 ("Analysis of Main Effect Variables"), and Item 12 ("Research Ethical") were deleted because they did not provide important information for the object of the present review.

In addition, two author-elaborated items were added: "Types of sociometric status profiles measured" and "Descriptive analysis and reliability of the instrument," whose purpose was to evaluate whether the selected studies considered the frequency with which the two harassment dynamics occurred and whether it carried out a descriptive and reliability analysis of each of the instruments administered. Finally, we established 7 criteria in the final version, which allowed us to verify the homogeneity of the studies, especially that of the instruments used, which was essential for the comparison of the results. Each item could be rated as -1, 0, 1, or NA, and thus the total score could range from -7 to 7. According to the specifications of the tool, studies with lower scores should be regarded with more caution compared with studies with higher scores. Six of the studies reviewed had a score of 5 or higher.

As shown in **Table 1**, some studies used interviews or qualitative measures and did not present reliability indices of the instruments used for data collection. Other studies did not measure each of the five sociometric types. These methodological aspects could explain, in part, the observed disparity regarding the social status of the bullies.

### **RESULTS**

Using the research strategy described above, we identified a total of 1,718 references. After eliminating duplicates, 715 references were retained. Of these references, 97 were selected by title and abstract for full-text reading. Finally, 29 studies were included for meeting the inclusion criteria. Of the total set of publications, 9 of them indicated that the bully role was associated with a positive status (Zequinão et al., 2020), that is, the bully profile was positively associated with popularity (Closson, 2009; Farmer et al., 2010; Shi and Xie, 2012; Peets and Hodges, 2014; Pouwels et al., 2018a,b; Guy et al., 2019), acceptance, or social preference (Waasdorp et al., 2013; Chen et al., 2020). In contrast, four studies associated the role of aggressor with a negative status (Cillessen et al., 2014), such as, for example, rejection within the peer group (Warden and Mackinnon, 2003; Greco, 2019) or with popularity

TABLE 1 | Methodological quality of studies.

References	Criteria						Total (-7-7)	
	1	II	III	*IV	*V	VI	VII	
Berger et al. (2015)	-1	1	1	1	1	1	1	5
Caravita et al. (2009)	-1	0	1	1	1	1	1	4
Caravita et al. (2010)	-1	-1	1	1	0	1	1	2
Chen et al. (2020)	-1	0	1	1	0	1	1	3
Cillessen et al. (2014)	-1	0	1	0	-1	1	1	1
Closson (2009)	-1	0	1	0	1	1	1	3
Closson and Hymel (2016)	-1	0	1	1	1	1	1	4
De Bruyn et al. (2010)	-1	1	NA	1	NA	1	1	3
Dijkstra et al. (2008)	-1	1	1	1	NA	1	1	3
Farmer et al. (2010)	-1	0	1	1	1	1	1	4
Greco (2019)	-1	-1	1	0	-1	1	1	0
Guy et al. (2019)	-1	1	1	1	1	1	1	5
Lee (2009)	-1	0	1	1	1	1	1	4
Malamut et al. (2020)	-1	0	1	1	0	1	1	3
Palacios and Berger (2016)	-1	0	1	1	1	1	1	4
Peets and Hodges (2014)	-1	-1	1	1	1	1	1	3
Peeters et al. (2010)	-1	0	1	0	1	1	1	3
Pouwels et al. (2016)	-1	0	1	1	0	1	1	3
Pouwels et al. (2018a)	0	0	1	1	1	1	1	5
Pouwels et al. (2018b)	0	1	1	1	1	1	1	6
Pronk et al. (2017)	-1	-1	1	1	0	1	1	2
Sentse et al. (2015)	1	1	1	1	1	1	1	7
Sentse et al. (2007)	-1	1	1	0	-1	1	1	2
Shi and Xie (2012)	-1	0	1	0	1	1	1	3
Van den Berg et al. (2015)	-1	0	1	1	1	1	1	4
Veenstra et al. (2010)	1	0	0	1	1	1	1	5
Waasdorp et al. (2013)	-1	-1	1	1	0	1	1	2
Warden and Mackinnon (2003)	-1	-1	1	1	0	1	1	2
Zequinão et al. (2020)	-1	0	1	-1	1	1	1	2

Notes: \* Own elaboration; I. [1] Random selection, [0] Non-random selection, [-1] No description of the sample selection procedure, [NA] Not applicable; III. [1] sample size larger than similar studies, [0] Sample size the same as similar studies, [-1] Sample size smaller than similar study or sample size not given, [NA] Not applicable; III. [1] Variables have either been previously used in research or are improvements over previous measures, [0] Variables have not been used in previous research studies, [-1] Variable operationalization is not discussed, [NA] Not applicable; \*IV. [1] Measure two or more sociometric status profiles, [0] Measure social status in general, without specifying in a specific profile, [NA] Not applicable; \*V. [1] The instruments are described and their reliability index is set, [0] Some type of description of the instrument is presented, but not the reliability of this one, [-1] The instruments are not described and do not present reliability, [NA] Not applicable; VI. [1] Statistical techniques, reasons for choosing technique or the caveats are not included, [-1] Statistical technique, reasons for choosing technique, and caveats are not explained, [NA] Not applicable; VII. [1] All important explanations are included in the analysis, [0] Important explanations are omitted from the analysis, [-1] Variables and concepts included in the analysis are not described in sufficient detail to determine whether key alternative explanations have been omitted, [NA] Not applicable.

and social preference (Palacios and Berger, 2016). However, the results of the remaining 16 studies could be clearly located at any of these poles, but rather lie in the middle of them. Thus, some of these studies indicated that bullies were characterized by reaching high scores in popularity, but low in preference or acceptance (Sentse et al., 2007; Caravita et al., 2009, 2010; De Bruyn et al., 2010; Berger et al., 2015; Van den Berg et al., 2015; Closson and Hymel, 2016; Pouwels et al., 2016, 2018a; Pronk et al., 2017; Malamut et al., 2020) or high in rejection (Dijkstra et al., 2008; Peeters et al., 2010; Veenstra et al., 2010), and even a controversial status within the group (Lee, 2009). Other studies showed that both popularity and rejection can predict

bullying behavior (Sentse et al., 2015). The results of the different investigations can be seen in **Table 2**.

### **Positive Status of Bullies**

Among the studies that suggest that there is a relationship between perpetrating bullying in adolescence and having a high position in the social hierarchy, Pouwels et al. (2018a,b) observed that adolescents who bully were most popular and had the most socially dominant position in the peer group. In the same way, the study of Zequinão et al. (2020) found that bullies achieved a more positive status than those who were not involved in bullying. More specifically, the results found by Guy et al. (2019) revealed

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TABLE 2 | Summary of selected studies.

References	Sample	Main objectives	Main findings
Berger et al. (2015)	N = 1,170 (51.6% boys) Age range = 10-12 Chile	To examine the probability of young adolescents falling into a given profile of aggressive/prosocial behavior along with positive social status.	Aggression was positively related to peer nominations of popularity ( $r=0.44$ , $p<0.01$ ) and being cool ( $r=0.46$ , $p<0.01$ ), and negatively related to peer nominations of being liked ( $r=-0.11$ , $p<0.01$ ) and prosocial ( $r=-0.38$ , $p<0.01$ ). High-aggressive high-popular status represented about 15% of the sample.
Caravita et al. (2009)	<ul><li>N = 461 (50.8% boys)</li><li>Age range = 11-14</li><li>Italy</li></ul>	To investigate the effects of interpersonal (social preference and perceived popularity) variables on bullying others.	Among both boys and girls, bullying was negatively linked with social preference (b = $-0.44$ , $\rho$ < 0.01), but, positively associated with perceived popularity (b = 0.47, $\rho$ < 0.001).
Caravita et al. (2010)	<ul><li>N = 211 (46.5% boys)</li><li>Age range = 9-11</li><li>Italy</li></ul>	Examine the association between social status and participation in bullying (No main aim)	Bullying as a ringleader was positively related to being perceived as popular ( $r=0.23$ ) and negatively as preferred ( $r=-0.59$ ).
Chen et al. (2020)	N = 523 (47.0% boys) Mean age= 14.43 China	To explore the associations between different bullying role combinations and peer acceptance/rejection.	Role combination was a significant main effect for peer acceptance, $F_{(9,522)} = 2.75$ , $p < 0.01$ . Bully/defender adolescents had higher peer acceptance and lower peer rejection compared with adolescents that lacked "defender" in their role combinations.
Cillessen et al. (2014)	N = 387 (51% boys) Mean age= 11.07 The Netherlands	To examine a possible dual role of social status in hostile attribution bias and aggression.	For girls, higher levels of popularity were related to perceiving less relational aggression ( $r = -0.11$ , $p = 0.04$ ) and bullying in peers ( $r = -0.13$ , $p = 0.02$ ).
Closson (2009)	N = 387 (47%  boys) Age range = 11-14 Canada	To examine how social status may be associated with social behaviors and experiences (aggression) within cliques.	Perceived popular cliques indicated a significant main effect, $F_{(10,708)}=3.46\ p<0.001$ for instrumental relational aggression, instrumental overt aggression, and reactive overt aggression.
Closson and Hymel (2016)	N = 426 (46.7%  boys) Mean age = 12.52 Canada	To evaluate whether aggressive behavior varies as a function of the social status of youths.	Direct and indirect aggression was positively associated with perpetrator popularity ( $\pi = 0.20$ , $SE = 0.05$ , and $\pi = 0.13$ , $SE = 0.04$ , respectively, both $\rho < 0.001$ ), but was negatively related to perpetrator preference ( $\pi = -0.24$ , $SE = 0.05$ , and $\pi = -0.14$ , $SE = 0.04$ , respectively, both $\rho < 0.001$ ).
De Bruyn et al. (2010)	N = 1207 (51.5% boys) Mean age = 13.6 The Netherlands	To examine the role of peer acceptance and perceived popularity in bullying in early adolescent peer groups.	Bullying correlated negatively with acceptance ( $r=-0.16$ , $\rho<0.001$ ) but positively with perceived popularity ( $r=0.25$ , $\rho<0.001$ ). And, this last association was stronger at lower levels of acceptance. Bullying was predicted negatively by acceptance ( $\beta=-0.47$ ) and positively by popularity ( $\beta=0.60$ ).
Dijkstra et al. (2008)	N = 3312 (50.6% boys) Mean age = 14.02, The Netherlands	To examine to what extent bullying behavior of popular adolescents is responsible for peers accept or rejected bullying (popularity-norm effect).	The negative association of bullying on peer acceptance [b = $-0.13$ , $t_{(3,310)} = 3.51$ , $p < 0.01$ ] and positive association on peer rejection [b = $0.42$ , $t_{(3,310)} = 11.10$ , $p < 0.01$ ] was weakened when bullying was perpetrated by popular adolescents [b <sub>peeracceptance</sub> = $0.03$ , $t_{(3,310)} = 2.70$ , $p < 0.01$ ], and [b <sub>peerejected</sub> = $0.33$ , $t_{(3,310)} = 8.00$ , $p < 0.01$ ].
Farmer et al. (2010)	<ul><li>N = 622 (46.6% boys)</li><li>Pre-adolescents</li><li>United States</li></ul>	To examine social prominence and social preference in relation to peer-group types (i.e., academic, aggression, popularity).	Social prominence (popularity) was related to aggressive peer-group type for girls, $F_{(1,311)}=31.18$ , $\rho<0.001$ ; and boys, $F_{(1,285)}=12.68$ , $\rho<0.001$ . In contrast, social preference was not related to aggressive peer-group type for girls or boys.
Greco (2019)	<ul><li>N = 114 (no data sex)</li><li>Mean age = 10.67</li><li>Argentina</li></ul>	To identify the social status of acceptance and rejection of those involved in bullying.	Out of 5 preadolescents nominated as bullies were also nominated as rejected. This pattern was not found in the adolescent group.  No aggressor obtained acceptance status.
Guy et al. (2019).	N = 3,883 Age range = 11–16 United Kingdom	To investigate differences between adolescent bullies, bully-victims, and those not involved on three measures of peer status: social impact, social preference, and perceived popularity.	Bullies had higher levels of social preference, $F_{(3,2,717)}=31.68$ , $\rho<0.001$ , $\eta^2=0.034$ , and perceived popularity, $F_{(3,2,717)}=31.50$ $\rho<0.001$ , $\eta^2=0.034$ , than all other bullying involvement groups.

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TABLE 2 | Continued

References	Sample	Main objectives	Main findings		
Lee (2009)	N = 338 (48.5% boys) Age range = 10-11 South Korea	To examine aggressive children's social preference as a function of gender and the types of aggression used.	Youths in each sociometric status group revealed significant differences in the use of physical, $F_{(3,160)}=11.70$ , $p<0.001$ , verbal [ $F_{(3,160)}=13.09$ , $p<0.001$ ], and relational aggression, $F_{(1,160)}=8.77$ , $p<0.001$ . Girls in the controversial group were significantly more aggressive in every type de aggression than the rest of the groups. In contrast, boys in the rejected group were as aggressive as those in the controversial group, and more aggressive than those in the socially preferred group across the three different types of aggression.		
Malamut et al. (2020)	N = 1,008 (50.1% boys) Mean age = 14.14 The Netherlands	To compare the profiles of bullies and non-bullies, focused on social status.	Peer-nominated bully positively correlated with Peer-nominated popularity (r = 0.34) and negatively with Social preference (r = $-0.34$ ).		
Palacios and Berger (2016)	N = 1,165 (51.2% boys) Age range = 9-12 The Netherlands	To evaluate the social status correlates of aggression and bullying and how these are influenced by peer groups' normative beliefs about aggression and prosocial behavior	Bullying was negatively associated with popularity and social preference (est. $=$ $-0.181$ and $-0.133$ , ps $<$ $0.01$ ). The associations between bullying and social preference and popularity status measures were not affected by group normative beliefs.		
Peets and Hodges (2014)	N = 239 (58.16% boys) Age range = 12-13 Finland	To test whether aggression toward highly disliked or highly liked peers is associated with popularity.	Aggression toward preferred targets who were not liked had a strong positive association with popularity (b = 0.465, $SE = 0.088$ , $p < 0.001$ ). In contrast, aggression toward highly preferred targets who were liked was more modestly related to popularity (b = 0.194, $SE = 0.096$ , $p = 0.042$ ).		
Peeters et al. (2010)	N = 806 (58.16% boys) Age range = 12-13 Finland	To identify types of bullies that differ in social relational bullying and popularity.	Boys: popular-socially intelligent bullies scored significantly higher than other bullies on leadership and social rejection, $F_{(3,73)}=2.78$ , $\rho<0.05$ . Girls: popular-socially intelligent bullies scored significantly higher on social rejection than other bullies $F_{(3,89)}=2.21$ , $\rho<0.05$ .		
Pouwels et al. (2016)	N = 1,638 (50.9% boys) Mean age = 16.38 The Netherlands	To examine the associations between the bullying roles and social status	Bullies (Relative Only Criterion – nominated by <10% of classmates) scored relatively high on being disliked, $[F_{(5,473)}=10.97, p<0.001]$ , popularity $[F_{(5,473)}=13.61, p<0.001]$ , proactive aggression, $[F_{(5,473)}=4.71, p<0.001]$ , and leadership, $[F_{(5,473)}=9.95, p<0.001]$ , compared with the other roles. Bullies (Absolute and Relative Criterion – nominated by $\geq 10\%$ of classmates) scored high on the same characteristics and also on reactive aggression, $[F_{(5,927)}=42.35, p<0.05]$ , and low on being liked $[F_{(5,927)}=43.61, p<0.05]$ compared with the other roles.		
Pouwels et al. (2018a)	N = 2,036 (49.2% boys) Age range = 12-17 The Netherlands	To examine differences in the popularity and social preference profiles of the participant roles between primary school (grades 4–6, ages 8–12), the lower-grades of secondary school (grades 7–8, ages 12–14), and the upper-grades of secondary school (grades 9–12, ages 14–18).	Bullies/followers were significantly more popular than defenders, who were significantly more popular than outsiders, $F_{(3,2,331)}=332.45, p<0.001, \eta p^2=0.30$ . Defenders were significantly more preferred than outsiders, who were significantly more preferred than bullies/followers $F_{(6,2,331)}=142.64, p<0.001, \eta p^2=0.16$ .		
Pouwels et al. (2018b)	N = 1,228 (43.8% boys) Mean age = 13.37 The Netherlands	To determine how trajectory clusters of social status (social preference and perceived popularity) and direct aggression from age 9 to age 14 predict adolescents' bullying participant roles at age 16 and 17.	Fisher's Z exact test showed that there was significant overlap between the bullying roles and social status trajectory clusters, $\rho <$ 0.001. Children with a bully/follower role were overrepresented (81%) in the stable popular trajectory cluster and underrepresented (19%) in the unpopular/disliked cluster.		
Pronk et al. (2017)	N = 699 (58.5% boys) Mean age = 13.8 The Netherlands India	To explore the associations between Indian and Dutch adolescents' bullying role behavior and their peer-group status position	Bully were positively correlated with popularity ( $r = 0.22$ ; $r_{\text{Dutchsample}} = 0.42$ ; $r_{\text{Indiansample}} = -0.29$ ) and negatively correlated with preference ( $r = -0.32$ ; $r_{\text{Dutchsample}} = 0.29$ ; $r_{\text{Indiansample}} = -0.37$ ).		

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TABLE 2 | Continued

References	Sample	Main objectives	Main findings
Sentse et al. (2015)	N = 4,492 (48.8% boys) Mean age = 14.4 Finland	To examine longitudinal associations between peer acceptance, peer rejection, perceived popularity and bullying.	Boys: bullying was positively associated with perceived popularity at T1. Also, bullying at T2 was predictive of less peer acceptance at T3 and peer rejection predicted higher levels of bullying at T3.  Girls: perceived popularity at T2 predicted higher engagement in bullying at T3.  Both genders: there was a significant concurrent association between peer rejection and bullying at T1, and only for girls at T2.
Sentse et al. (2007)	N = 2578 (51.7 boys) Mean age = 13.4 The Netherlands	To test a person-group dissimilarity model for the relation between peer preference and bullying.	Peer preference was negatively associated with bullying ( $rs=-0.04$ ). Bullying had a main effect on peer preference ( $b=-0.103$ , $t=-2.15$ , $p<0.05$ ), and the positive regression coefficient of Bullying $\times$ Classroom Bullying indicated that higher levels of classroom bullying weaken the negative effect of bullying on peer preference ( $p<0.05$ ).
Shi and Xie (2012)	N = 318 (49% boys) Mean age = 11.00 United States	To examine differential adjustment and developmental patterns of popular and non-popular subtypes of aggressive youth and the peer social dynamics that support such patterns.	Popular aggressive youth ( $M=0.04$ , $SD=0.05$ ) maintained higher levels of popularity than did non-popular aggressive youth ( $M=0.01$ , $SD=0.01$ ), $F_{(1,78)}=14.33$ , $\rho<0.001$ , $\rho\eta^2=0.16$ . Aggressive subtype was a significant predictor of sixth-grade popularity, $\beta=0.37$ , $t=3.63$ , $\rho<0.001$ . The association between aggressive subtype and an individual's affiliation with
			popular-aggressive peers was tested. Aggressive subtype was found to be a significant predictor, $\beta = 0.25$ , $t = 2.50$ , $p < 0.05$ .
Van den Berg et al. (2015)	N <sub>children</sub> = 733 (53.3% boys) N <sub>teacher</sub> = 29 (31% males) Mean age = 12.05 The Netherlands	To examine behaviors roles that teachers and peers ascribe to children at different levels of preference and popularity.	Low preferred children showed more overt aggression than average or highly preferred children, $F_{(2,467)}=41.26$ , $\rho<0.001$ , $\eta^2_{partial}=0.15$ . Unpopular and popular children showed more overt aggression than average children, $F_{(2,494)}=5.38$ , $\rho=0.005$ , $\eta^2_{partial}=0.02$ . Popular children showed more relational aggression than average and unpopular children, $F_{(2,494)}=26.94$ , $\rho<0.001$ , $\eta^2_{partial}=0.10$ . Low preferred children showed more relational aggression than average or highly preferred children $F_{(2,467)}=19.78$ , $\rho<0.001$ , $\eta^2_{partial}=0.08$ .
Veenstra et al. (2010)	N = 481 (54.7% boys) Mean age = 10.5 The Netherlands	To analyze the complex relations of bullying with acceptance and rejection.	Boys who bully boys were only rejected by boys [b = 0.36, $t_{(480)}$ = 2.78, $\rho$ < 0.01], and not by girls [b = 0.03, $t_{(480)}$ = 0.30, $\rho$ = 0.76]. Boys bully girls, they were only rejected by girls [b = 0.37, $t_{(480)}$ = 4.10, $\rho$ < 0.01], and not by boys [b = 0.03, $t_{(480)}$ = 0.33, $\rho$ = 0.75]. Boys who bully boys were acceptance by girls [b = 0.22, $t_{(480)}$ = 1.93, $\rho$ = 0.05]. Girls who bully boys had a low level of acceptance by boys [b = 0.46, $t_{(480)}$ = 2.50, $\rho$ = 0.01] and girls [b = 0.28, $t_{(480)}$ = 1.99, $\rho$ = 0.05].
Waasdorp et al. (2013)	N = 227 (51.5% boys) Mean age = 9.5 United States	To examine the association between aggression and social status (e.g., popularity and social preference) among minority youth.	Both boys and girls who were rated by their peers as being more aggressive were also more likely to be rated as being popular (rs = 0.41-0.49, $p$ < 0.001). Gender moderated the relationship between aggression and perceived popularity, $F_{(6,226)}$ = 64.90, $p$ < 0.001; $\Delta R^2$ = 0.04, $p$ < 0.001. Girls who were rated as more relationally aggressive were also perceived as more popular, children rated highly in overt aggression, $F_{(3,226)}$ = 63.60, $p$ < 0.001; $\Delta R^2$ = 0.14, $p$ < 0.001, and relational aggression, $F(4,226)$ = 51.29, $p$ < 0.001; $\Delta R^2$ = 0.02, $p$ < 0.001, were likely to be less socially preferred by their peers.
Warden and Mackinnon (2003)	N = 131 (51.9%) Mean age: 9.6 Scotland	To compare prosocial children, bullies and victims in terms of sociometric status	Prosocial children were significantly more likely to be achieve popular status $[X_{(2)}^2 = 15.72, \rho < 0.001]$ , and significantly less likely to achieve rejected status $[X_{(2)}^2 = 10.80, \rho < 0.01]$ than either bullies or victims. Ten bullies (43%) were accorded rejected status, but there were, notably, four popular bullies, all boys.
Zequinão et al. (2020)	N = 409 (50.6%) Mean age: 11.1 (boys) and 10.9 (girls) Brazil	To analyze the sociometric status and its relationships with gender, age and profiles of bullying participation in children and adolescents in situations of social vulnerability	Aggressors presented higher positive sociometric status than those who do not participate in aggressive behaviors ( $\rho < 0.001$ ).

that, compared to the rest of the bullying roles, bullies had higher levels of popularity and social preference. Similarly, Farmer et al. (2010) found higher levels of social prominence, defined by the authors as the degree to which classmates perceive a student as being cool or popular, in those adolescents considered bully. These results are in line with studies that concluded that popular adolescents were involved in more intimidation behaviors than average adolescents (Closson, 2009; Pouwels et al., 2018a), and were more likely to maintain this status during the transition to high school than bullies who were not popular within the group (Shi and Xie, 2012).

The findings of Chen et al. (2020) revealed that adolescents who were bullies had high levels of acceptance and low levels of rejection within the group as long as they alternated the role of aggressor with that of "defender" (a role characterized by supporting the victims and trying to stop bullying). Other studies have observed that bullying toward highly liked peers was associated with popularity for those adolescents who had high preference scores, suggesting that behavior is related to social benefits when it occurs among those at the top tier of the social preference hierarchy (Peets and Hodges, 2014). Similarly, Dijkstra et al. (2008) concluded that popularity moderated the impact of bullying on the social status of bullies, as bullying by popular adolescents, on the one hand, weakened the negative impact that this behavior has on acceptance and, on the other, the positive impact on rejection.

# **Negative Status in Bullies**

Although few studies have considered that bullies maintain a negative social position within the peer group, it is interesting to take their findings into account. In this sense, Greco (2019) observed that bully preadolescents achieved a negative status within the group derived from a higher percentage of rejection nominations. Besides, Palacios and Berger (2016) found that the negative associations of bullying with popularity and social preference were not affected by the normative peer context. Cillessen et al. (2014) detected negative relationships between popularity and bullying. They also indicated that the bully role was more strongly associated with negative status in those adolescents who were more likely to make hostile attributions. For these authors, hostile attributions refer to attributing harmful or adverse intentions to others' ambiguous behaviors, and they suggest that negative status and biased attributional factors can predict subsequent bullying.

# Positive Status and Negative Status in Bullies

Most of the studies in this review have reported disparities between the social position of the perpetrators of bullying, finding groups of bullies with a positive social position and other groups with a negative status. Some of them indicated that bullying behaviors at school were associated with greater popularity and a decrease in social preference and likebility (Caravita et al., 2010; Pronk et al., 2017; Malamut et al., 2020), others, in turn, showed differences based on gender and type of bullying. That is, high levels of overt bullying were associated

with lower popularity for girls, but higher for boys. In contrast, high levels of relational bullying were only significantly related to popularity in the case of girls (Waasdorp et al., 2013). Along these lines, Peeters et al. (2010) found that positive social status, specifically popularity, was related to social intelligence (the ability to understand the perspective of others and be able to manipulate their thoughts) and with the use of relational bullying, concluding that popularity and social intelligence may be preconditions for using this type of harassment.

The findings of Veenstra et al. (2010) revealed that the bullies, regardless of whether they were girls or boys, were rejected by the gender toward whom the bullying was directed but not by the gender toward whom it was not directed. However, male bullying toward the same gender was positively related to female acceptance. In other words, boys who attacked other boys obtained high levels of liking from the girls, an effect that was not observed in the case of female bullying. Continuing with the differences by gender, Lee (2009) observed that bully boys were likely to be rejected by peers, whereas bully girls were both rejected and accepted by peers. Concerning the type of bullying, verbal bullying was positively related to rejection in boys, but negatively in girls. However, relational bullying was not related to rejection in boys, but it clearly predicted peer rejection in girls. Likewise, the findings of Sentse et al. (2015) showed that, for boys, rejection status acted as a predictor of bullying and, in the case of girls, of popular status.

In line with the results that found positive and negative status simultaneously in the bullies, Berger et al. (2015) and Caravita et al. (2009) observed that bullying was negatively related to acceptance and social preference, and positively to perceived popularity. In the study by Closson and Hymel (2016), both direct and indirect bullying were positively associated with popularity but negatively with acceptance of the bullies. De Bruyn et al. (2010) reported that more bullies were nominated with high popularity status but low acceptance status than adolescents who were popular and accepted. Likewise, the results showed that popular status positively predicted bullying. In contrast, acceptance or preference status negatively predicted bullying and acted as a moderator of the link between popularity and bullying. That is, the correlation between popularity and bullying was stronger in adolescents with low levels of acceptance among peers. Similarly, the results of Dijkstra et al. (2008) revealed that bullying was negatively related to acceptance, and positively to peer rejection but these relationships were weakened when the bully had a popular status within the group.

Sentse et al. (2007) concluded that the norms of behavior in the classroom had an impact on the relationship between participation in bullying and the preference of peers. That is, in classrooms where bullying was not normative, adolescents who bullied were more likely to be rejected by their peers. In contrast, when bullying was normative, bullies were not only less likely to be rejected by their peers but were also more likely to achieve positive status (higher preference) in the group. The study by Van den Berg et al. (2015) showed, on the one hand, that direct bullying was higher in those adolescents with low social preference compared to the average or to highly preferred adolescents, and on the other hand, that relational

bullying was higher in popular adolescents than in average or unpopular adolescents.

### DISCUSSION

The present study offered a systematic review on the sociometric status and/or social position of adolescents involved in bullying in the role of bully. Based on the literature included in this review, the results suggest that, in general, the role played in bullying behavior is important for the status that youngsters can achieve. However, other factors that may intervene in the social position within the peer group should be taken into account. Of the 29 studies included in this review, 9 found that a high percentage of school bullies had a positive social position in the peer group. Only 4 of the studies in this review indicated that the bullies had a negative status in the group; and 16 of them indicated that the bullies achieved different statuses, positive and negative, simultaneously in the peer group.

# Sociometric Status Associated to Bully Role

Regarding the studies that have associated the bully role with the positive status (Closson, 2009; Farmer et al., 2010; Shi and Xie, 2012; Waasdorp et al., 2013; Peets and Hodges, 2014; Guy et al., 2019; Chen et al., 2020; Zequinão et al., 2020), previous literature indicates that bullying behavior by popular adolescents sets the norm within the classroom, and therefore determines peer acceptance or rejection of bullying behavior (Sentse et al., 2007; Dijkstra et al., 2008; Laninga-Wijnen et al., 2020). Thus, in a classroom where bullying is normative, it can be especially easy for a popular adolescent to bully others without fear of losing their position of dominance and leadership within the group (Peeters et al., 2010). Likewise, bullies can improve their status in the group and be accepted by their peers, either out of fear of retaliation for not supporting the perpetrators of bullying, or because they also engage in this behavior in the same role (Lee, 2009). This seems to be consistent with an evolutionary theoretical perspective that considers that bullying can be viewed as an adaptive goal-directed behavioral strategy to obtain resource and reputational control. In this sense, Pronk et al. (2017) observed that adolescents' bullying role behavior and their peergroup status are similar across cultures, consistent with the evolutionary theoretical perspective of bullying as an adaptive behavior.

Other studies indicate that the positive status of bullies may be the result of considering bullying behavior as a sign of social dominance (Duffy et al., 2017) or as a way to maintain or increase the status in group (Pouwels et al., 2018a,b). Sometimes this positive status can even be encouraged when the bullying behavior is directed exclusively toward classmates who are among the highest positions of the group's hierarchy because it may be interpreted as a search for social power (Peets and Hodges, 2014). In addition, various authors identify the Reputation Enhancement Theory (Emler and Reicher, 1995), that is, the need to be seen as strong, tough, and powerful individuals, as well as to improve their position in the social hierarchy, as one of the

main motives that lead bullies to intimidate others (Pronk and Zimmer-Gembeck, 2010; Houghton et al., 2012). Therefore, the positive status achieved by the perpetrators of bullying could be the result of having managed to manifest in the peer group the desired social image, that is, an image characterized by power and social dominance (Estévez et al., 2012).

Positive status, especially referring to acceptance or preference, has also been associated with bullying behavior when the role of bully coexists with the "defender" role, that is, when bulklying is combined with supportive behaviors toward the victim and with efforts to stop bullying. Thus, those adolescents who, despite being involved in bullying behavior as an bully, also defend the victims, are more likely to achieve higher levels of social preference and less likely to be rejected than the rest of the members of the peer group (Coie et al., 1991; Salmivalli et al., 1996; Warden and Mackinnon, 2003). Therefore, the role of defender seems to have a "protective" effect on the status of bullies (Chen et al., 2020), which could help explain why some bullies achieve a positive status and at the same time, a negative status, by awakening feelings of rejection, especially in those peers who intimidate and maintain negative relationships (Veenstra et al., 2007; Berger and Caravita, 2016; Closson and Hymel, 2016; Reijntjes et al., 2018).

This bipolarity in the status of bullies has been the result observed by most of the studies included in this review, and, according to the previous literature, reflects the superposition of the bullies' different ways of acting to balance the costs and benefits of bullying behavior (Hawley, 1999, 2003; Chen et al., 2020). Various studies have related the controversy over the status of bullying perpetrators to the Resource Control Theory (Hawley, 1999), which states that adolescents tend to use two different strategies, coercive and prosocial, to obtain the necessary resources they need to improve their adaptation in the peer group (Volk et al., 2012; Hartl et al., 2020), or to promote the acceptance, in this case.

On another hand, it has been observed that the acceptance/rejection of peers toward an individual can moderate the association between popularity and the bully role. Thus, adolescents who have a popular status, but also one of rejection, are considered by the peer group as perpetrators of bullying more frequently than youngsters with popular and accepted statuses. The literature indicates that this effect may be a consequence of the type of harassment used. That is, popular bullies who are not liked (rejected) tend to use more direct harassment such as physical assault or damage to property, whereas those who are liked (accepted) harass in a subtler way than direct bullying, such as relational bullying (De Bruyn et al., 2010). However, several studies included in this review have observed that the status attained by bullies within the peer group derives from a purely negative status. According to previous literature, it is not surprising for bullying behavior to be considered unpleasant and to generate rejection in some adolescents, especially in those who do not perpetrate it, causing the role of bully to occupy a low position in the social hierarchy (Berger et al., 2015). In relation to this, bullying seems to be a behavior negatively sanctioned independent of the value the group ascribed to bullying. That is, bullying seems to be unpopular and socially disliked by peers per se as an individual behavior, probably due to its abusive and immoral character (Palacios and Berger, 2016). Another argument that attempts to explain the negative status of bullies is supported by the fact that bullying can be considered a reactive resource to the rejection that bullies perceive from their peers (Cillessen et al., 2014). That is, the literature suggests that adolescents who have a negative status, in which rejection or low acceptance predominates, can rely on bullying as a resource to attract attention and achieve recognition and consideration from their schoolmates (Longobardi et al., 2018).

Despite the heterogeneity of the research included in this review, the findings of the present study show the difficulty, not only of accurately understanding the social status of bullies but also of defining the behavioral profile of adolescents whose status is not clearly located at one pole (positive or negative). Thus, it seems to support the conclusions of previous studies stating that social status not only depends on the behavioral characteristics noticed by the peers in the group but also on non-behavioral characteristics (e.g., perceived as attractive, funny, etc.) (Sentse et al., 2015; Rytioja et al., 2019).

# LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The findings are not without limitations. One of them arises from the exclusion criteria, as they could bias the results. Following a stricter protocol and criteria would have made the contribution of this review more robust. Furthermore, we only consulted a limited number of psychology databases. Perhaps consulting a greater number of scientific databases relevant to other disciplines could have strengthened the contribution of this work. Another limitation is due to the experimental designs of the evaluated studies. In most of them, the instruments used did not coincide, and in other studies, sociometric status was measured using non-validated questionnaires or qualitative measures. Furthermore, most of the studies were not considered methodologically robust due to low scores on various methodological criteria of the Quantitative Research Assessment *Tool.* This contributed to the inability to perform meta-analyses due to the paucity and heterogeneity of the quantitative data. Despite the modest conclusions, this work has provided an approach to understanding social status in the dynamics of bullying. However, the authors are aware that much remains to be done. Thus, for example, for future studies it would be appropriate to include research with good methodological quality, rigorous eligibility, and sample selection criteria, using instruments and measures previously validated in the literature for the investigation of the social status of perpetrators of bullying. It would also be interesting to include some variables at the individual, family, and social level, as well as to extrapolate the study of sociometric status to the context of cyberspace to strengthen the evidence on this important topic. And finally, it would be interesting to address the subject of bullying from the perspective of development, due to the evident changes that occur over time in the functions of the peer group, as well as in the hierarchy that is achieved therein.

### CONCLUSION

Although the present review has some limitations, it also makes relevant contributions, offering a greater understanding of the relationship between the position in the group and social behavior in adolescents. Taken together, the findings show that the differences between adolescents with positive or negative status are not only attributable to the behavior they manifest but also to the way these adolescents behave toward their peers of a particular social status. Thus, the status-behavior link is a complex subject that should be studied further. In this regard, it is relevant to project the study of social status as a multifactorial characteristic in which the sociocognitive and behavioral skills available are taken into account, and not as an individual and invariant characteristic.

### **AUTHOR CONTRIBUTIONS**

EC has written the main text and carried out the bulk of the literature review. EE has carried out supplementary literature review and written sections related to it. EC and JE has supplemented the literature review, rewritten large portions of the text, and proofread the manuscript. All authors contributed to the article and approved the submitted version.

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