Classroom- and School-Level Contributions to Bullying and Victimization: A Review

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ABSTRACT

School bullying is increasingly viewed by researchers as a group phenomenon that extends beyond the perpetrator–victim dyad and is embedded in the wider social context. This paper reviews the literature on classroom and school factors contributing to bullying and victimization among children and adolescents. Considerable variability in the prevalence of these problems exists between classrooms and schools, which are highly relevant contexts for students' social development. Along with individual characteristics, both classroom- and school-related factors explain the bullying dynamic. The contexts may also exacerbate, or buffer against, the effects of individual-level risk for bullying involvement and the consequences of victimization. We discuss findings on the contributions of demographic and structural characteristics (e.g. grade level, classroom and school size), peer contextual factors (e.g. status hierarchy, group norms and bystander behaviours) and the role of teachers. Finally, implications for research and school-based antibullying programs are considered. Copyright © 2014 John Wiley & Sons, Ltd.

Key words: bullying; victimization; classroom and school contexts; antibullying programs

Bullying at school affects many children and adolescents around the world. According to a cross-national survey (Craig et al., 2009), among students aged 11 to 15 years, the percentages of victims and bullies were 13% and 11%, respectively, and another 4% were classified as bully-victims who both bullied and were victimized by others. School bullying is commonly defined as recurring negative actions targeted at a student over a prolonged period by a peer, or group of peers, with harmful intentions (Olweus, 1993). The relationship between the perpetrator(s) and the victim is characterized by a systematic abuse of power and thereby the victim's difficulty in defending himself or herself against the physical, verbal or social attacks (Olweus, 1993; Smith & Sharp, 2006). However, the problem of bullying extends beyond the perpetrator–victim relationship: It is increasingly

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viewed by researchers as a group phenomenon embedded in, and influenced by, the wider social context (e.g. Salmivalli, 2010). Besides bullies and victims, students participate in this process in different roles: as assistants or reinforcers of the bully, defenders of the victim or passive bystanders (Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996). In addition to bullying often having adverse implications for the psychological, social and physical development of the students involved, those merely witnessing the incidents can be negatively affected by it (Rivers, Poteat, Noret, & Ashurst, 2009).

As the application of the socioecological model (Bronfenbrenner, 1979) to the conceptualization of bullying and victimization suggests, these are ecological phenomena 'that emerge from social, physical, institutional and community contexts as well as the individual characteristics of the bully and the victim' (Swearer & Doll, 2001, p. 9; see also Swearer & Espelage, 2004). Much of the extant empirical research has focused on the latter, that is, individual-level correlates of bullying involvement (for meta-analyses, see, e.g. Cook, Williams, Guerra, Kim, & Sadek, 2010; Gini & Pozzoli, 2009). However, the conceptualization of bullying and victimization as socioecological phenomena has led to an increased interest in contextual—especially classroom- and school-level—factors involved, both in research and with regard to antibullying practices. Classrooms and schools are among the most relevant contexts for children and adolescents' social development and have been found to vary considerably in rates of bullying and victimization (Bradshaw, Sawyer, & O'Brennan, 2009; Kärnä et al., 2011, 2013; Khoury-Kassabri, Benbenishty, Astor, & Zeira, 2004). Numerous studies have investigated demographic and structural characteristics of classrooms and schools, such as grade level and number of students, that may contribute to the problems. Recently, researchers have begun to look deeper into the implications of the characteristics of the peer contexts shared by students, such as status hierarchy, norms, bystander behaviours and climate quality. The role played by teachers has also been gaining research attention.

The present paper aims to provide a representative and critical overview of the growing body of literature on the contributions of classroom- and school-level factors, which can be seen as threefold: demographic and structural, peer contextual and teacher-related. Within these three categories, we discuss contextual risk and protective factors for students' bullying involvement, the interplay between personal risk indices and contextual characteristics, and the effects of context on victims' adjustment. Finally, implications are drawn for research and school-based antibullying practices.

DEMOGRAPHIC AND STRUCTURAL CHARACTERISTICS

The risk of being bullied declines rather steadily from one grade level to the next (Smith, Madsen, & Moody, 1999). Students experience less victimization in middle schools than in elementary schools (Smith et al., 1999), and high school students report less victimization than middle school students (Khoury-Kassabri et al., 2004). This age-related decline is thought to be explained by factors related to students' physical and psychosocial development as well as dissimilarities in the social and academic climate at the different school levels (Craig et al., 2009; Smith et al., 1999). On the other hand, the developmental trend in bullying perpetration is quite different: After an initial decline, bullying increases again, such that the prevalence of bullies in the lower elementary school grades is close to that in

the higher grades of middle school (Olweus, 1993). The pattern of findings also seems to reflect the tendency of bullies to target younger students (Craig et al., 2009; Olweus, 1993; Smith et al., 1999).

Although boys appear to be involved in bullying as perpetrators or victims more often than girls (Cook et al., 2010), inconsistent findings have been reported regarding whether there is an additional effect of classroom or school gender distribution that goes beyond the individual-level gender effect. Khoury-Kassabri et al. (2004) found that the risk of victimization was greater in schools with a higher proportion of male students and suggested that a high concentration of boys might generate a school climate that exacerbates violent behaviours. Others, however, found no classroom- or school-level effect of gender distribution on peer- or self-reported victimization (Saarento, Kärnä, Hodges, & Salmivalli, 2013), whereas peer-reported—but not self-reported—bullying was found to be more common in classrooms with a higher proportion of boys (Saarento, Kärnä, & Salmivalli, 2011).

According to some studies, the classroom proportion of immigrants (Kärnä, Salmivalli, Poskiparta, & Voeten, 2007) and the school proportion of ethnic minority students (Whitney & Smith, 1993) are unrelated to the risk of bullying or victimization. Vervoort, Scholte, and Overbeek (2010), on the other hand, found that victimization—but not bullying—was more prevalent in classrooms with a higher proportion of ethnic minority students; higher levels of victimization in these classrooms were not, however, directed at either ethnic minority or majority students in particular. Their findings also supported the idea that the association between ethnicity and bullying involvement depends on the classroom ethnic composition: Ethnic minority students were more likely to be nominated as bullies in classrooms with a greater proportion of minority students as compared with classrooms with a low proportion of minorities (Vervoort et al., 2010). Although their behaviour was not directed at ethnic majority classmates in particular, this might reflect minority students' greater confidence in attaining dominance by bullying others in contexts with higher proportions of ethnic minorities. Also, Bellmore, Witkow, Graham, and Juvonen (2004) investigated the interplay between individual ethnicity and the classroom ethnic composition and found that victimized students reported highest levels of anxiety and loneliness in classrooms they shared with many same-ethnicity peers. Although belonging to the classroom ethnic minority may encourage victims to attribute their plight to external factors (e.g. others' racism), being in the ethnic majority may increase victims' self-blaming tendencies; these internal attributions worsen psychological difficulties.

Furthermore, Klein and Cornell (2010) examined the implications of both the school proportion of ethnic minority students and the diversity of the school ethnic composition: Teachers in schools with a greater proportion of minority students perceived more bullying taking place, but in schools with a more diverse student body (i.e. no single racial group was predominant), they reported less bullying than in schools with less diversity. However, ethnically diverse schools were also characterized by higher rates of discipline violations for bullying, possibly reflecting stricter enforcement in these schools. Despite the findings based on teacher reports, no association was found between either the proportion of minority students or diversity, and bullying problems reported by students.

Many studies have explored the association between socioeconomic indices measured at the school level [e.g. average socioeconomic status (SES) in the area or of students in the school] and bullying—often with the hypothesis that low SES is associated with more bullying problems. Some found no association (e.g. Kärnä et al., 2007; Ma, 2002), whereas others reported that a low school-level SES predicted bullying and victimization

(Bradshaw et al., 2009; Whitney & Smith, 1993). Bradshaw et al. (2009) found the association in middle but not in elementary schools, however. Others elaborated that a low school-level SES was associated with an increased risk of being bullied physically and that, on the contrary, a high average SES was associated with an increased risk of victimization by verbal-social means (Khoury-Kassabri et al., 2004). Klein and Cornell (2010) found that lower SES high schools were characterized by higher student perceptions of the prevalence of bullying, and higher rates of physical attacks, but no association was found with self-reports of victimization or teacher-perceived bullying. Nonetheless, it has been suggested that students' socioeconomic family background, rather than school-level SES, may have implications for the risk of bullying involvement (Jansen et al., 2012).

Classroom and school size have often been examined as possible predictors of bullying and victimization. The common perception seems to be that risks are higher in larger classrooms and schools—a perception supported by little empirical evidence, however. In several studies, no association was found between classroom size and bullying problems (e.g. Olweus, 1993; Saarento et al., 2011; Whitney & Smith, 1993). One study reported that victimization was more prevalent in larger classrooms (Khoury-Kassabri et al., 2004), but opposite findings have also been described. Saarento et al. (2013) showed that peer-reported victimization was more common in smaller classrooms—a finding also reported by Vervoort et al. (2010)—whereas classroom size was unrelated to self-reported victimization. The authors suggested the pattern of findings might be explained by the salience of bullying incidents to a greater proportion of students in smaller classrooms, and by students' greater awareness of peers who are rejected in the group (Saarento et al., 2013). Additionally, classroom size was found to moderate the effects of intra- and interpersonal risk factors on peer- and self-reported victimization (Saarento et al., 2013): For socially anxious students, the risk of being bullied was exacerbated in smaller classrooms—likely because internalizing problems could less easily go unnoticed— whereas peer-rejected students were at greater risk of victimization in larger classrooms.

Furthermore, most studies have failed to find an association between school size and bullying problems (e.g. Khoury-Kassabri et al., 2004; Olweus, 1993; Wei, Williams, Chen, & Chang, 2009; Whitney & Smith, 1993; Wolke, Woods, Stanford, & Schulz, 2001). Interestingly, Klein and Cornell (2010) showed that teacher- and peer-perceived bullying was higher in larger high schools, whereas school size was not associated with students' self-reports of victimization. The authors suggested that the perceived link between larger school size and greater bullying problems may be an illusion due to a greater number of perceived bullying offences rather than a higher rate per student, which they actually found to be higher in smaller schools. Other studies looking into different age groups have reported slightly mixed findings: In a sample of elementary school students, school size was not associated with peer- or self-reported victimization (Saarento et al., 2013), whereas the risk of self-reported—but not peer-reported—bullying appeared to be higher in larger schools (Saarento et al., 2011). On the contrary, Ma (2002) found the risk of self-reported bullying to be increased in smaller middle schools (Ma, 2002). Investigations of the effects of the student–teacher ratio, which some researchers have considered as an alternative to school size that might be more informative in terms of teachers' resources to supervise and manage students' behaviours, have been inconclusive (Bradshaw et al., 2009; Wei et al., 2009).

In one study, a high student mobility rate at the school level (i.e. the percentage of students leaving and joining the school during a school year) was hypothesized to correlate

with an increased risk of bullying and victimization, as changes in the student body disrupt the rhythm in classrooms and schools and the newcomers' lack of connectedness and adjustment to the new context might increase aggression. Rather than aggravating the problems, high mobility was found to be associated with less bullying and victimization; however, it did seem to adversely affect students' feelings of safety at school (Bradshaw et al., 2009). Another study included the proportion of new students at both the classroom and school levels and found no associations to bullying problems (Kärnä et al., 2007).

Along similar lines, Farmer, Hamm, Leung, Lambert, and Gravelle (2011) showed that the risk of bullying involvement may be elevated where there is no transition from one school to another as children move from elementary to middle school grades: Compared with students in schools with a transition, students in schools without one were more likely to bully and be bullied and perceived the peer ecology as less protective against bullying, after entering the middle school grades. The authors suggested that breaking up existing dominance structures in adolescent peer groups might buffer against bullying. Their findings and viewpoint challenged those of Pellegrini and colleagues, according to whom the transition period can promote bullying problems, which may be used as a strategy to establish dominance in the new group (Pellegrini & Bartini, 2000; Pellegrini & Long, 2002). Others have revealed inconsistent findings regarding the prevalence of bullying problems following the move to middle school grades—with or without a transition—which may be due to national specificities (Pellegrini & Long, 2002), although it is noteworthy that mixed evidence has also been reported within countries (e.g. United States).

Again, contrary to many beliefs, rates of bullying and victimization have not been found to be higher in schools in urban areas than in rural schools (Bradshaw et al., 2009; Olweus, 1993; Wolke et al., 2001). In fact, some studies suggest the opposite (Dulmus, Theriot, Sowers, & Blackburn, 2004; Klein & Cornell, 2010). It has been suggested that in rural schools—many of which are small and do not have a transition, which may result in a rather static social community and consolidation of social reputations—bullying may be a byproduct of students' efforts to maintain the existing dominance structure (Farmer et al., 2011).

In sum, besides the conclusion that victimization declines from one grade level to the next whereas bullying increases after an initial decline, research on the influences of classroom- and school-level demographic and structural factors has been rather inconclusive. There is some indication that the problems may be more prevalent in contexts with a higher proportion of boys and in those with a higher proportion of ethnic minority students, but according to other findings, these associations do not exist. One study suggests that the effects of ethnic diversity, on the other hand, depend on the type of measure of bullying used. There are also mixed findings on the existence and direction of the effects of school-level SES, classroom and school size, and student–teacher ratio. Student mobility seems to be associated with less bullying and victimization or unrelated to the problems. Findings are inconclusive about the implications of school transition when students enter the middle school grades. Where the school's location is associated with the prevalence of bullying, the problems have been found greater in rural rather than urban schools. In addition to main effects of the aforementioned contextual factors, their interactions with students' individual characteristics have begun to be explored and proven informative for the study of risk factors for bullying involvement and the consequences of victimization.

PEER CONTEXTUAL FACTORS

At the heart of the bullying dynamic is a power imbalance between perpetrators and victims. This power is usually of a social nature: Many bullies enjoy a prominent position in the peer network (Caravita, Di Blasio, & Salmivalli, 2009), and their high popularity appears to facilitate bullying (Cillessen & Mayeux, 2004). This specific feature of bullying has led researchers to hypothesize that hierarchical classroom environments, that is, classrooms characterized by large differences in students' status (operationalized as perceived popularity, social impact or both) would encourage the enactment of bullying behaviours. Once thought to deter aggression within groups (e.g. Savin-Williams, 1979), status hierarchies have actually been shown to intensify victimization issues. In comparison with children in low-hierarchy classrooms, elementary school children in classrooms with a high degree of hierarchy are more likely to remain victimized in middle school (Schäfer, Korn, Brodbeck, Wolke, & Schulz, 2005) or to become targets of relational aggression 2 to 4 years later (Wolke, Woods, & Samara, 2009). Recent multilevel analyses conducted with a large sample of adolescents further demonstrated that a higher level of classroom status hierarchy predicted higher levels of bullying over time (Garandeau, Lee, & Salmivalli, 2013). Hierarchical peer networks may foster bullying by making the behaviour less costly in terms of popularity, as supported by the finding that aggressive children are more popular in classrooms of higher hierarchy (Garandeau, Ahn, & Rodkin, 2011).

Furthermore, classroom norms concerning bullying-related behaviours predict bullying involvement over and above students' private attitudes (e.g. Saarento et al., 2011; Salmivalli & Voeten, 2004; Scholte, Sentse, & Granic, 2010), which often are disapproving of bullying (Rigby & Slee, 1991). Group norms can refer to what is commonly done (i.e. descriptive norms) or to what is commonly approved of (i.e. injunctive norms; Cialdini, Kallgren, & Reno, 1991). In bullying research, several conceptualizations and measures of norms have been used. Bullying problems have been found to be more common in classrooms where students score lower on antibullying attitudes (Saarento et al., 2011, 2013; Scholte et al., 2010)—a finding that has also been replicated for cyberbullying (Elledge et al., 2013)—and where students expect positive social outcomes for probullying actions and negative outcomes for provictim actions (Saarento et al., 2011, 2013; Salmivalli & Voeten, 2004). Classmates' behaviours (i.e. high levels of bullying) have been shown to have greater predictive value than, and to potentially mediate the effects of, the prevailing attitudes (Scholte et al., 2010) on an individual student's risk of bullying perpetration. According to one study, the classroom average rate of bullying matters less than the bullying behaviour of popular students for the acceptance of bullying: As indicated by the individual-level association between bullying and likeability, bullying is more accepted in classrooms where popular students engage in it at high levels (Dijkstra, Lindenberg, & Veenstra, 2008).

Bullying-related norms can also be reflected in bystanders' responses when witnessing bullying. In some classrooms, it is common to behave in ways that provide social rewards to the perpetrators, such as laughing when the target is publicly ridiculed; in other classrooms, such probullying behaviours are rare and students are more likely to defend the victims instead (Kärnä, Voeten, Poskiparta, & Salmivalli, 2010). As revealed by intraclass correlations, the proportions of classroom-level variance in bystander responses are relatively high: Of the total variation in reinforcing the bully, for instance, about 20% is accounted for by differences between classrooms. Between-classroom variability in defending is even larger, amounting to 35%.

Besides the early observational studies by Pepler and colleagues showing that bystander interventions are often effective in stopping a bullying incident (O'Connell, Pepler, & Craig, 1999), the question of whether and how bystander responses influence the target, the perpetrator or the peer context have only recently received empirical attention. These studies suggest that bystanders truly matter. First of all, their responses bear an important message to the victims. Sainio, Veenstra, Huitsing, and Salmivalli (2011) showed that defended victims were better adjusted than undefended ones: They had higher self-esteem and peer status. In interviews with adults who had been bullied at school (Teräsahjo, 1997), the most traumatic memories were verbalized as 'no-one seemed to care' or 'everyone was just laughing'. In other words, bystanders' indifference may feel even worse than the bullies' acts *per se*. Bystanders also have an effect on the perpetrators. Bullies, who often wish to demonstrate power to their peers, need bystanders and are fuelled by their reinforcement (Salmivalli, 2010). Accordingly, bullying has been found to be more frequent in classrooms where reinforcing the bully is common and defending the victims is rare (Salmivalli, Voeten, & Poskiparta, 2011). In such classrooms, as compared with ones characterized by the opposite dynamics, socially anxious and peer-rejected students are also more likely to be victimized (Kärnä et al., 2010).

As shown across countries (Cook et al., 2010; Harel-Fisch et al., 2011), students tend to have a negative perception of the psychosocial environment in classrooms and schools with prevalent bullying problems. Victims, perpetrators and bully-victims perceive the climate as more undesirable than others (Bacchini, Esposito, & Affuso, 2009; Yoneyama & Rigby, 2006). Like group norms, classroom and school climate have been conceptualized in multiple ways. Some researchers have utilized a more general concept that often incorporates student perceptions of the degree to which they feel respected at and have a sense of belonging to school (Cook et al., 2010). Others have focused on a specific dimension, or distinguished many, such as academic morals (Ma, 2002) and relationships among students (Bacchini et al., 2009), as well as disciplinary characteristics (Gregory et al., 2010; Khoury-Kassabri et al., 2004; Ma, 2002) and teacher–student relationships (Bacchini et al., 2009; Eliot, Cornell, Gregory, & Fan, 2010; Gregory et al., 2010; Khoury-Kassabri et al., 2004; see the section that follows). Yet, given the dearth of longitudinal studies, it is not clear whether a negative climate is an antecedent or a consequence of bullying (Saarento et al., 2013).

To sum up, classroom- and school-level factors pertaining to students' peer contexts, such as status hierarchies, groups norms, bystander behaviours and perceived climate, have been shown to be related to bullying and victimization issues among students. More specifically, the problems seem to be intensified, rather than deterred, by higher classroom status hierarchies. Furthermore, the risk of bullying and victimization is greater in contexts characterized by weak antibullying norms, as reflected in students' cognitions and behaviours. Whether students witnessing the bullying incidents tend to reinforce the bullies or support the victimized classmates has an important bearing on both parties involved, as well as for children at a heightened risk for victimization. Low ratings of the classroom and school climate have also been found consistently associated with higher bullying problems.

THE ROLE PLAYED BY TEACHERS

Along with the increased consideration of peer group effects, the role of teachers has received growing attention in studies on contextual contributions to bullying and

victimization. The first study to examine the implications of staff professional cultures for bullying among students (Roland & Galloway, 2004)—although restricted to comparisons between two schools—suggested that a lack of collaboration and consensus among teachers is associated with more problems. On the other hand, positive and supportive student–teacher relationships (Khoury-Kassabri et al., 2004; Murray-Harvey & Slee, 2010; Wei et al., 2009), which increase students' willingness to report bullying (Eliot et al., 2010), buffer against the risk of bullying problems. So do student participation in decision making and clear antiviolence school policies (Khoury-Kassabri et al., 2004).

Furthermore, studies have shown that it is not only peer bystanders' reactions to bullying but also those of teachers that can mitigate or aggravate such problems. Teachers' beliefs about bullying and its causes influence whether and how they intervene in bullying incidents (Kochenderfer-Ladd & Pelletier, 2008). A recent study indicated a higher victimization rate in classrooms where teachers attributed bullying to factors outside of their control (e.g. victims' behaviour) and where teachers had a history of bullying others (Oldenburg et al., 2014). Counter to expectations, victimization was also higher when teachers strongly believed they were able to handle bullying in the classroom (Oldenburg et al., 2014). These associations could be at least partly mediated by the teachers' lack of motivation to, or failure to efficiently counteract bullying. However, given the cross-sectional nature of the study, causal directions cannot be determined. Nonetheless, through their efforts, or a lack of efforts to intervene, teachers may affect classroom norms for bullying-related behaviours and the prevalence of these behaviours (e.g. Saarento et al., 2013).

Moreover, students' perceptions of how their teachers relate to victims, perpetrators and at-risk students can have an impact. Victimized children, for instance, experience less support than others from their teachers (Cassidy, 2009), and a low sense of empowerment by the teacher is associated with bullying involvement as a victim, perpetrator or bully-victim (Nation, Vieno, Perkins, & Santinello, 2008). Recently, both cross-sectional (Saarento et al., 2011, 2013) and longitudinal studies (Saarento, Boulton, & Salmivalli, 2014) have shown that perceived teacher attitudes to bullying do matter: Students who perceive their teacher to clearly disapprove of bullying are less likely to engage in the behaviour, whereas the risk of being bullied is greater in classrooms and schools where teachers are perceived to condone bullying. The aforementioned studies focused on more traditional (e.g. direct verbal) forms and global measures of bullying. Interestingly, however, findings from the first cross-sectional study assessing classroom-level contributions to cyberbullying suggest that bullying via electronic means, as well as by social exclusion, may be more prevalent in classrooms where students collectively perceive their teacher as highly capable to intervene in bullying (Elledge et al., 2013). This could imply that in such contexts, students may resort to more covert forms of bullying that are more difficult for teachers to monitor.

Taken together, extant research suggests that teachers can influence the bullying dynamic among their students in multiple ways. The risk of bullying and victimization is associated with characteristics of the organizational cultures fostered by adults at school. For instance, positive relations between the children and adults at school, which encourage student engagement and provide students with social support, serve as a buffer against the problems. Attention should also be paid to teachers' ways of relating to students involved in, or at risk for, bullying and their beliefs and attitudes regarding bullying, which in turn influence their efforts to intervene. It is the students' perceptions of their teachers' take on bullying that seems to be particularly important.

DISCUSSION

School bullying is not only a problem that concerns individuals involved as bullies or victims but one that is embedded in peer groups and school communities. This paper reviewed the literature on classroom- and school-level contributions to bullying and victimization, which have been the focus of a growing number of studies—fuelled by the socioecological conceptualization of these phenomena (Swearer & Doll, 2001; Swearer & Espelage, 2004)—with investigations starting with demographic and structural characteristics of classrooms and schools and moving on to the peer contexts and teachers. Identifying influential factors can help to further develop school-based antibullying practices to support the positive development of students and the healthy functioning of schools as social systems.

According to extant research, there are links between several classroom and school characteristics and students' bullying involvement. Then again, findings on the contributions of many such characteristics—especially demographic and structural—are inconsistent, and much remains to be explored. Despite these mixed findings, our review suggests that some popular beliefs are not supported by empirical research: For instance, the risk of bullying is generally not higher in larger classrooms and in big, urban schools. It is the social context that appears to bear more significance: Bullying is facilitated in contexts characterized by higher status hierarchies and higher levels of students' probullying attitudes and behaviours, such as reinforcing the bully and not standing up for the victim. Positive teacher–student relationships and clear disapproval of bullying by teachers tend to discourage bullying. Importantly, contextual factors, such as bystander behaviours, have also been shown to moderate the effects of intra- and interpersonal risk indices as well as the links between victimization and adjustment: The association between individual risk factors and victimization, for instance, varies across classrooms, suggesting that the same factors only lead to victimization when the context allows that to happen. Likewise, the classroom context may exacerbate or attenuate the psychosocial difficulties experienced by victims.

Implications for future research and antibullying practices

When drawing directions for future research on contextual contributions to bullying and victimization, a few methodological issues deserve mention. First, there is a need for longitudinal designs to provide insight into the direction of the observed effects. Second, the use of multilevel modelling—which has only recently begun to be more frequently applied in studies on bullying, although its relevance for research in educational settings has been known for decades—should also be further promoted. In educational contexts, students are nested within classrooms that are nested within schools; analytic strategies accounting for the nested data and effects at the different levels should be employed (Raudenbush & Bryk, 2002).

Third, the inconsistencies in the literature concerning the implications of classroom- and school-level demographic and structural factors may be, at least partly, explained by variation in the age groups examined, conceptualizations and methods used, and sets of risk or protective factors examined. The inconclusive evidence seems to point future research to the direction of examining not only cross-level interactions between personal and contextual predictors but also potential interactions and mediated effects involving demographic and structural as well as social contextual characteristics of classrooms and

schools. Such investigations could help explain the discrepant findings and offer new insight into the bullying dynamic.

Finally, researchers have often only utilized one source of information on bullying and victimization, and when several (e.g. peer and self-reports) have been included, results have sometimes depended on the source. Further attention to such dependencies and their conceptual and methodological explanations is warranted. In addition, whereas studies on contextual risk and protective factors have so far focused on traditional forms or global estimates of bullying and victimization, classroom- and school-level influences on the phenomenon of cyberbullying (Dehue, 2013) have recently started to be investigated. Classrooms vary significantly in rates of cyberbullying and cybervictimization (Williford et al., 2013), implying that these, too, are influenced by the contexts shared by students. As discussed in this review, students' perceptions of their teachers' take on bullying might have different implications for less overt, such as cyber, forms of bullying. Researchers have also suggested that the role of peer bystanders might differ for cyberbullying incidents (e.g. Williford et al., 2013). However, students' online peer networks are likely to include classmates, and technological advances suggest cyberbullying may increasingly take place in the presence of peers and on school grounds (Williford et al., 2013). To a degree, this may moderate the unique characteristics of cyberbullying, but more empirical research is needed to shed light on the extent to which contextual contributions to this modern phenomenon may differ from those already discussed in the school bullying literature.

Regarding school-based antibullying practices, it is worth noting that given its inconsistencies, the reviewed literature on the implications of classroom and school demographic and structural characteristics does not appear to offer definitive directions as to how these factors could be manipulated in order to help prevent and reduce bullying. Being more consistent, the evidence regarding the influences of social contextual characteristics can better be translated into practical recommendations. Specifically, characteristics of the interactions among, and between, students and teachers should be carefully considered, as guided by the evidence for the most influential classroom- and school-level factors pointed out in the current review. Importantly, both students' and teachers' awareness of their crucial role in counteracting bullying and supporting the victims should be raised. Some of this evidence has already been utilized for the theoretical underpinnings of a number of school-based antibullying programs (Smith, Schneider, Smith, & Ananiadou, 2004).

In recent decades, several antibullying programs have been developed, which operate at multiple levels of the school context. This whole-school approach to bullying prevention is increasingly endorsed by researchers, practitioners and policy makers and has even been enacted into the law in some jurisdictions (Smith et al., 2004). It is based on the conceptualization of bullying as a systemic problem influenced by social processes occurring among both students and adults at school. According to this view, targeting the entire context is critical in counteracting the problem. As literature reviews have shown, there is variability in the success rates of antibullying programs utilizing the whole-school approach (Smith et al., 2004; Ttofi & Farrington, 2011). An example of successful whole-school programs is the KiVa program developed in Finland (Salmivalli, Kärnä, & Poskiparta, 2010). It is based on the participant role approach to bullying (Salmivalli et al., 1996) and includes both indicated actions to handle identified cases of bullying and preventive universal actions targeted at the whole school community. The first study to examine the mediating mechanisms underlying whole-school antibullying program

effects (Saarento et al., 2014) showed that the program reduced bullying problems by increasing students' antibullying attitudes as well as by influencing bystander behaviours and perceived teachers' attitudes toward bullying.

Research has shown that the effects of whole-school programs, such as KiVa, can also generalize to cyber forms of bullying and victimization (Williford et al., 2013). This might seem contradictory in light of the aforementioned finding, according to which cyberbullying may be more prevalent where students collectively perceive their teacher as highly motivated and capable to intervene in the behaviour (Elledge et al., 2013). It seems plausible, however, that in cases where the expectation of teacher intervention leads students to resort to more covert forms of bullying instead of stopping the harassment, one of the most crucial ingredients in counteracting bullying—that is, strengthening antibullying norms among students—has not yet been achieved.

What remains to be determined about whole-school antibullying programs is the relative effectiveness and working mechanisms of different components included therein (Saarento et al., 2014). Given that the effects of many of the programs have been less than hoped for, it should be carefully examined whether the components, and their hypothetical working mechanisms, reflect recent literature on factors shown to be influential in bullying. In addition to further developing whole-school programs, attention should be paid to how they are actually being implemented in schools and how school professionals could best be supported in persistent implementation (Haataja et al., in press).

As shown in this literature review, classroom and school contexts can have essential implications for bullying involvement. Nevertheless, the importance of considering other contextual contributions, embedded in the socioecological model (Bronfenbrenner, 1979), has also been pointed out in the literature. As bullying can differ from one relationship to another within the higher level contexts, depending on between whom (e.g. same-sex or cross-sex peers) it takes place, researchers have begun to examine bullying and victimization issues from a dyadic perspective (e.g. Rodkin & Berger, 2008; Sainio et al., 2011; Sainio, Veenstra, Huitsing, & Salmivalli, 2012; Veenstra et al., 2007). Murray-Harvey and Slee (2010), for instance, suggest that not only peers and teachers but also families need to be considered, as family relationships, too, play a role in these problems. Others have advocated a focus on the broader community (Bacchini et al., 2009) and sociocultural context (Hong & Espelage, 2012), which are also likely to affect bullying-related norms and behaviours among school-aged children and adolescents. In the future, the field of school bullying research and antibullying practices would certainly benefit from a broader consideration of the interplay between these different levels of contextual influence.

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