



Can Friendships Protect Against the Health Consequences of Peer Victimization in Adolescence? A Systematic Review

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Accepted: 3 February 2021 / Published online: 25 February 2021

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Abstract

Although bullied adolescents experience elevated risk for adverse mental and physical health outcomes, some youth exhibit resilience in the face of peer victimization. Given the developmental importance of peer relationships during adolescence, much of the research examining protective factors that can mitigate bullying-related harm has focused on the role of friendships. However, the findings from studies testing the protective role of friendships for bullied youth have never been systematically reviewed. The goals of the current systematic review were to (a) synthesize the evidence for the protective effect of friendships (quantity and quality) on the mental and physical health of peer victimized adolescents and (b) provide corresponding recommendations for school-based health practitioners to facilitate appropriate supports among socially vulnerable youth in educational settings. A total of 37 studies were identified and evaluated. Approximately half of studies were cross-sectional and most tested friendship quality as a moderator of links between peer victimization and mental health. Although some studies provided evidence for a protective function of friendships, others yielded null effects or found that close friendships amplified victimization-related distress. Given the inconsistency of findings, school-based health practitioners should be aware of the various ways that friendships may, or may not, buffer bullied adolescents from negative health outcomes. Further replication of friendship buffering effects will be essential for guiding school-based bullying prevention and intervention efforts.

Keywords Peer victimization · Friendship · Health · School context · Systematic review · Adolescence

Introduction

It is well-established that adolescents who are victimized by their peers experience heightened risk for adverse mental and physical health outcomes, both concurrently and over time (Juvonen & Graham, 2014; McDougall & Vailancourt, 2015; Schacter, 2021). However, not all victims of bullying experience maladjustment, and it is important

to consider how youth's proximal relational contexts shape their development in the face of peer mistreatment (Hong & Espelage, 2012). In turn, a growing body of work has investigated protective factors that can mitigate the negative effects of peer victimization among youth. Across the transition from childhood to adolescence, peer relationships take on increased importance (Brown & Larson, 2009), and friendships offer one potential buffer against victimization-related harm. Although many studies have evaluated the protective function of friendships among bullied adolescents, findings from this body of research have yet to be systematically reviewed and evaluated. In order to establish developmentally sensitive antibullying intervention and prevention approaches that capitalize on the full extent of adolescents' social resources, an empirically informed understanding of when and how friendships can play a role in such efforts is critical (Espelage & Swearer, 2009). Therefore, the current review examines the evidence for friendship quantity and quality as protective factors in the association between peer victimization and adolescent mental and physical health.

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Peer Victimization and Adolescent Health Outcomes

Compared to childhood, adolescence is characterized by heightened sensitivity to social input and a reorientation toward peer relationships (Blakemore & Mills, 2014). In turn, experiences of peer victimization function as a particularly potent stressor for adolescents. Peer victimization involves being the target of direct (e.g., physical, verbal) or indirect (e.g., exclusion, gossip) forms of peer aggression, and such experiences can occur in face-to-face (e.g., school) or online (e.g., social media) contexts. Moreover, adolescents who are victimized by their peers are more likely to develop both mental and physical health problems. For example, meta-analytic evidence demonstrates that, compared to their nonvictimized peers, victimized youth typically experience heightened depressive and anxiety symptoms (Reijntjes, Kamphuis, Prinzie, & Telch, 2010), maladaptive thought patterns (e.g., rumination; self-blame), and suicidal ideation (van Geel, Goemans, & Vedder, 2015). Recent work also underscores the physical health consequences of peer victimization (Schacter, 2021), such that victims of bullying report more somatic complaints (Gini & Pozzoli, 2013), sleep problems (van Geel, Goemans, & Vedder, 2016), and health risk behaviors (e.g., drinking, smoking; Earnshaw et al., 2017) during adolescence. Peer victimization can also elevate risk for health problems years later, as documented in recent research showing heightened disease risk (Wolke, Copeland, Angold, & Costello, 2013) and inflammation (Takiwaza, Danese, Maughan, & Arseneault, 2015) among adults who were bullied as youth. Taken together, these findings highlight the robust short- and long-term links between peer victimization and health problems and raise questions about whether protective factors can alleviate the negative effects of bullying on development.

Friendship Quantity and Quality

Whereas experiences of peer victimization threaten adolescents' basic developmental needs for social belonging and acceptance, close friendships are presumed to function as critical social and emotional resources for youth (Sullivan, 1953). Defined as voluntary, egalitarian, and dyadic relationships characterized by a positive affective tie (Bagwell & Schmidt, 2011; Bukowski & Hoza, 1989), friendships provide a unique developmental context for adolescents to experience interpersonal validation and support (Bagwell & Schmidt, 2011). A wide body of research suggests that youth who have friends typically experience better developmental outcomes compared to those who lack such relationships (Bagwell, Newcomb,

& Bukowski, 1998; Hartup, 1996). Moreover, friendships characterized by trust, intimacy, and support (i.e., high-quality friendships) are particularly beneficial for promoting adolescents' autonomy and social competence, which are critical developmental tasks of adolescence (Bagwell & Schmidt, 2011) that set the stage for healthy adult relationships (Allen, Narr, Kansky, & Szewedo, 2020).

Although there are many ways to characterize and define friendships, the current review focuses on two of the most widely studied components of friendships: quantity and quality. As the term implies, quantity refers to the number of friends in a given adolescent's social circle or the mere presence (versus absence) of at least one friendship. Adolescents with a greater number of friends exhibit fewer internalizing and social problems (Waldrip, Malcolm, & Jensen-Campbell, 2008), and those with at least one friendship have a higher sense of self-worth and reduced depression (Wentzel, Barry, & Caldwell, 2004). Thus, not only do friendships represent an important source of companionship (e.g., someone to sit with at lunch or to walk down the hallway with), these relationships also contribute to more positive adolescent adjustment. Additionally, qualitative aspects of friendship(s), such as the presence of trust, disclosure, and intimacy, become especially important during adolescence, reflecting a growing need for intimacy within close relationships (Sullivan, 1953). In fact, over and above the number of friends adolescents have, higher friendship quality (i.e., friendships characterized by support, protection, and intimacy) is associated with reduced internalizing problems (e.g., depression, somatic complaints) and social difficulties (Waldrip et al., 2008).

Given that friendships can offer a range of psychological and social benefits to adolescents, research has examined whether friendships might function as a protective factor among youth who are bullied by their peers. In other words, in addition to investigating whether friendship serves as a preventive mechanism to reduce the likelihood of youth experiencing victimization in the first place (Bagwell & Bukowski, 2018; Boulton, Trueman, Chau, Whitehand, & Amatya, 1999), researchers have considered whether friendships can mitigate the health consequences of victimization after such mistreatment has occurred. Such work is largely guided by stress-buffering models of social support (Cohen & Wills, 1985), which suggest that individuals who perceive high levels of social support are protected from the adverse effects of stressful life events. From this perspective, friendships are likely to offer a unique social resource that enables youth to adaptively cope with and bounce back from negative social experiences. (Hartup & Stevens, 1997; Sullivan, 1953). For example, research indicates that youth exhibit greater physiological recovery in the face of stress when they have a best friend present (Adams, Santo, & Bukowski, 2011) or perceive greater friend support (Calhoun et al.,

2014). In research focusing specifically on peer victimization as a developmentally relevant stressor, some studies have similarly found that friendships can buffer against the negative health consequences of victimization (e.g., Fridh, Lindström, & Rosvall, 2015; Hodges, Boivin, Vitaro, & Bukowski, 1999). However, in the absence of any systematic synthesis, little is known about the robustness of friendship as a protective factor among victimized youth.

The Present Study

The current systematic review aims to assess when and how friendships contribute to peer victimized adolescents' health outcomes. Specifically, we focus on published studies that test whether friendship quantity and/or quality moderate associations between adolescent peer victimization and mental or physical health outcomes across adolescence, defined herein as ages 10–18. Although this study focuses on the moderating role of friendship in the context of youth's victimization experiences (i.e., friendship X peer victimization interactions), we also discuss several third variable factors that function as effect qualifiers (e.g., gender) across the reviewed studies.

We are not aware of any existing reviews or meta-analyses that systematically evaluate the evidence for friendship as a protective factor among peer victimized youth. As such, the field lacks a clear understanding of friendship as a potential intervention point to support the well-being of victimized youth—who make up nearly 25% of adolescents (Juvonen & Graham, 2014). In order to offer both accurate and effective strategies for school administrators, school mental health practitioners, teachers, and others working directly with youth, it is critical to understand if and how friendships can be utilized to promote the well-being of socially vulnerable students.

Method

Protocol and Registration

The systematic review approach followed guidelines outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA, Moher, Liberati, Tetzlaff, Altman, & The PRISMA Group, 2009). Before conducting any literature searches, the current review protocol was pre-registered on the Open Science Framework (<https://osf.io/5qa4e>).

Inclusion Criteria

Several inclusion criteria were established and used in the process of abstract and full-text screening of articles.

Participants

Studies were only included if the mean age of participants was between 10 and 18 years of age. If the study was longitudinal, participants must have had a mean age between 10 and 18 years of age at the time point when peer victimization was measured. We focus on ages 10–18 to capture the experiences of youth across early (10–12), middle (13–15), and late (16–18) adolescence, a developmental period characterized by the increased salience and importance of peers. If the information on age was not available in the manuscript, authors were contacted for details, or grade level was used to determine study eligibility. No restrictions were imposed on participants' location or other demographic factors (e.g., gender, ethnicity).

Predictor

To be eligible for inclusion, studies needed to measure participants' experiences of peer victimization, which we defined as being the target of peer aggression, including but not limited to persistent teasing, verbal harassment, cyberbullying, exclusion, gossip, rumor-spreading, and/or physical abuse. Although peer victimization can take many forms, we used search terms that captured peer victimization more globally (e.g., peer victimization; bullying; peer aggression) to ensure a more inclusive search (see Table 1). Studies were included if they examined any form of peer victimization reported by youth themselves (i.e., self-reported), peers (i.e., peer nominations), parents, and/or teachers. Studies that did not measure peer victimization, but examined other negative peer experiences (e.g., being disliked by peers) or students' aggression perpetration, were excluded.

Moderator

The current review focused on studies that empirically tested the protective effect(s) of friendship quality and/or quantity on links between peer victimization and health. Therefore, in order to be included, studies had to measure an index of friendship quality (e.g., perceived emotional support from friends) and/or quantity (e.g., number of friends). Additionally, given that moderation provides a stringent test of whether victimization-health links vary as a function of friendship factors, studies needed to include at least

Table 1 Overview of search databases and terminology

Databases: PsycINFO, Web of Science, PubMed, ERIC

Other sources: Scanning reference lists in publications on peer victimization, friendships, and health

Search terms

Terms related to peer victimization: (“peer victimization” OR “peer harassment” OR “peer aggression” OR “peer abuse” OR bull* OR cyber-bull* OR cybervictim*)

AND

Terms related to friendship: (friend*)

AND

Terms related to mental and/or physical health: (health OR “well-being” OR mood OR depression OR depressive OR anxiety* OR “self-esteem” OR “self-worth” OR suicid* OR “self-injurious” OR “self-harm” OR internal* OR psychological OR distress OR disorder OR psychosocial OR stress OR disease OR illness OR sleep OR physiol* OR physical OR somatic OR biological OR biomarker OR neur* OR hormone* OR symptom OR “risk taking” OR “risk-taking” OR diet OR eat* OR weight OR BMI OR sex* OR alcohol OR drug* OR smoke*)

AND

Terms related to adolescence: (adolescen* OR teen* OR youth* OR preadolescen* OR juvenile* OR “middle school” OR “high school” OR “secondary school” OR student*)

Restrictions: English, human, peer-reviewed, mean age 10–18

one formal test of moderation between victimization and friendship (i.e., testing at least one interaction term or using multiple group analyses). Therefore, studies that included informal group comparisons (e.g., analyses stratified by youth with and without friends) were excluded insofar as they did not provide a formal test of moderation that could be evaluated.

Outcomes

As outlined in the review’s pre-registered protocol, studies needed to examine adolescents’ mental or physical health outcomes. Studies of mental health outcomes were included if they measured adolescents’ depression, anxiety, self-esteem, suicidality, global psychological symptoms, and/or overall well-being (e.g., life satisfaction). In terms of physical health outcomes, studies were included if they measured adolescents’ physical health symptoms/status (e.g., somatic complaints), chronic conditions (e.g., illness/disease), health behaviors (e.g., sleep, diet), and/or physiological functioning (e.g., immune function, cortisol output, neural reactivity).

Study Design and Publication

Studies were included if they were empirical quantitative studies (i.e., not review paper, qualitative analyses, or editorial) with human subjects and had an English full-text available for screening. Only peer-reviewed articles were included (i.e., theses, dissertations, and conference proceedings were excluded). Additionally, to be included, the article’s full text needed to be available online or at the author’s request.

Search Strategy

A search was conducted in January 2020 using the terms outlined in Table 1. The search included variants of (a) peer victimization, (b) friendship, (c) mental and/or physical health, and (d) adolescence. A start date for the search was not specified. Parallel literature searches were conducted in PsycINFO, Web of Science, PubMed, and ERIC. When possible (i.e., using advanced search functions), searches were restricted to peer-reviewed papers in English conducted with human subjects. Manual searches of the reference lists provided in key articles were also conducted to identify any additional studies that were missed using the predetermined search terms.

Study Selection

As seen in the PRISMA flowchart presented in Fig. 1, a total of 1,794 articles were identified by the search strategies. After duplicates were removed, a total of 1,273 papers proceeded to the first stage of review. Two trained researchers independently read all paper titles and abstracts and indicated whether or not each paper met the review inclusion criteria. All disagreements between reviewers were settled through consultation with the lead researcher. A total of 1,148 studies were excluded as a function of not meeting inclusion criteria during title/abstract screening, and seven additional duplicates were identified at this screening stage. Thus, 118 papers proceeded to full-text review. Two trained researchers independently scanned full texts to determine the eligibility of the remaining articles. Disagreements were again settled through consultation with the lead researcher. During

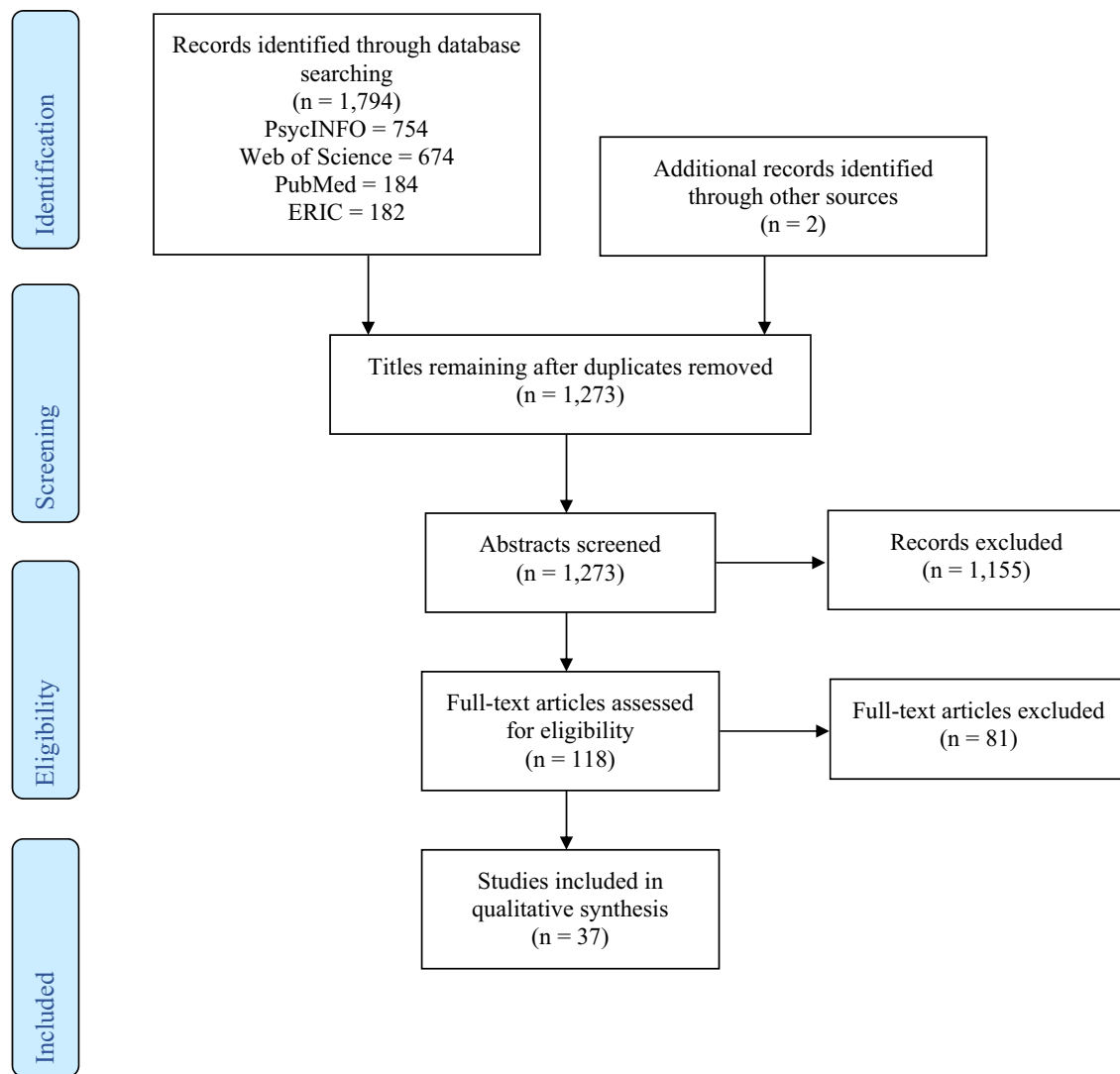


Fig. 1 PRISMA flow diagram

the full-text review, studies were again excluded if they violated any of the inclusion criteria. After the full-text screening, a total of 43 articles were identified as eligible for the review. However, during data extraction, six additional studies were identified as not meeting study criteria (e.g., did not report results of friendship moderation analyses; examined friendship moderation at the classroom rather than individual level). Thus, a total of 37 articles were included in our final qualitative synthesis.

Data Extraction

Two researchers extracted reference information, methodological characteristics, and a summary of relevant results from the full texts of eligible studies. Each researcher extracted information for half of the articles and then verified the content entered

by the other researcher. Any disagreements were resolved through consultation with the lead researcher.

Results

Sampling and Design

Table 2 presents a list of all 37 included studies and data extracted. Although there were no time constraints on the literature search, all included papers were published between 1999 and 2019, with sample sizes ranging from 77 to 8544. Of the included studies, approximately half ($n = 19$) were based in the USA, with the rest based in Canada ($n = 5$), the UK ($n = 3$) and other regions of Europe ($n = 7$), Asia ($n = 1$), Australia ($n = 1$), or South America ($n = 1$). Approximately

Table 2 Studies included in the review

Study	Location	Sample	Design	Outcome	Friendship moderator	Moderation findings
Adams & Cantin (2013)	Montreal, Canada	<i>N</i> = 610, <i>Mage</i> = 12.62 years	Short-term longitudinal: two time points across one school year	Self-reported depressive symptoms and self-esteem for physical appearance	Quality	Significant moderation. Greater self-disclosure in friendships buffered the indirect association between peer victimization and subsequent depressive symptoms via self-esteem for physical appearance among adolescents with overweight
Adams et al. (2018)	Metropolitan area of a city, Midwest, United States	<i>N</i> = 180, <i>Mage</i> = 12.78 years	Short term longitudinal: two time points, spaced approximately six months apart	Self-reported depressive symptoms	Quality	Significant moderation. Higher expectations of friends buffered the association between peer victimization and subsequent depressive symptoms
Aoyama et al. (2011)	Texas, United States	<i>N</i> = 463, <i>Grade</i> = 9th	Cross-sectional	Self-reported depressive symptoms, anxiety, stress, and self-esteem	Quality	Nonsignificant moderation. Cybervictimization associated with concurrent depressive symptoms, anxiety, stress, and (lower) self-esteem, regardless of perceived friendship quality
Baraccia et al. (2018)	Central and Southern Italy	<i>N</i> = 2105, <i>Mage</i> = 15.9 years	Cross-sectional	Self-reported depressive symptoms, trait anxiety symptoms; self-reported state and trait anger	Quantity	Significant and nonsignificant moderation. Having a best friend buffered the association between peer victimization and concurrent depressive symptoms among participants with high, but not low, forgiveness. Peer victimization associated with concurrent anxiety and anger, regardless of whether participants had a best friend
Bhui et al. (2017)	East London, England	<i>N</i> = 2789 (time 1), 2093 (time 2); Age range: 11–12 years	Longitudinal across two years	Self-reported psychological distress	Quality	Nonsignificant moderation. Peer victimization associated with subsequent psychological distress, regardless of perceived friend support

Table 2 (continued)

Study	Location	Sample	Design	Outcome	Friendship moderator	Moderation findings
Bonanno & Hymel (2010)	British Columbia, Canada	<i>N</i> = 399, <i>Mage</i> = 14.2 years	Cross-sectional	Self-reported suicidal ideation	Quality	Nonsignificant moderation. Peer victimization associated with concurrent suicidal ideation, regardless of perceived social support from friends
Brendgen & Poulin (2018)	Quebec, Canada	<i>N</i> = 390, <i>Mage</i> = 12.38 years	Longitudinal across 10 years	Self-reported depressive symptoms	Quality	Nonsignificant moderation. Peer victimization associated with subsequent depressive symptoms, regardless of perceived friend support
Burke et al. (2017)	26 Swiss cantons	<i>N</i> = 960, <i>Mage</i> = 13.2 years	Longitudinal across two years	Self-reported depressive symptoms	Quality	Nonsignificant moderation. Peer victimization associated with subsequent depressive symptoms, regardless of perceived friend support
Chen & Graham (2012)	Los Angeles, California, United States	<i>N</i> = 1106, <i>Mage</i> = 17.93 years	Cross-sectional	Self-reported social anxiety and self-blame	Quality	Significant and nonsignificant moderation. Having a more conflictual best friendship amplified the concurrent association between peer victimization and self-blame for girls but not boys. Peer victimization was concurrently associated with self-blame, regardless of perceived best friend support
Cheng et al. (2008)	Hong Kong	<i>N</i> = 712, <i>Mage</i> = 15.7 years	Cross-sectional	Self-reported depressive symptoms	Quality	Significant and nonsignificant moderation. Friendship support buffered the concurrent association between peer victimization and depressive symptoms for boys but not girls

Table 2 (continued)

Study	Location	Sample	Design	Outcome	Friendship moderator	Moderation findings
Cooley et al. (2015)	Large urban city, Midwest, United States	N = 152, Mage = 16.23 years	Cross-sectional	Self-reported depressive symptoms	Quality	Significant and nonsignificant moderation. Friendship support buffered the concurrent association between relational, but not overt, peer victimization and depressive symptoms
Cuadros & Berger (2016)	Santiago, Chile	N = 546, Grades = 4th, 5th, 6th	Short-term longitudinal: three time points across one year	Self-reported emotional well-being	Quality	Significant and nonsignificant moderation. Greater friendship support buffered the negative association between peer victimization and subsequent emotional well-being. Greater friendship disclosure buffered the negative association between peer victimization and subsequent emotional well-being for girls but not boys. Peer victimization associated with worse subsequent emotional well-being regardless of friendship closeness or affection
Davidson & Demaray (2007)	Small midwestern town, United States	N = 355, Grades = 6th, 7th, 8th	Cross-sectional	Self-reported internalizing and externalizing symptoms	Quality	Significant and nonsignificant moderation. Close friend support amplified the concurrent association between peer victimization and externalizing distress, but not internalizing distress, for girls but not boys

Table 2 (continued)

Study	Location	Sample	Design	Outcome	Friendship moderator	Moderation findings
Erath et al. (2010)	Central Pennsylvania, United States	<i>N</i> = 383, Age = 12.67 years	Cross-sectional	Self-reported social anxiety	Quantity	Significant and nonsignificant moderation. Having closer mutual friendships buffered the concurrent association between peer victimization and social anxiety for boys, but not girls. Peer victimization concurrently associated with social anxiety for boys and girls, regardless of number of secondary mutual friendships
Espinoza (2018)	United States	<i>N</i> = 136, Grades = 9th–12th	Daily diary	Self-reported anger and distress	Quality	Significant and nonsignificant moderation. More time spent with friends buffered the daily association between cybervictimization and anger as well as distress. Higher perceived friendship quality buffered the concurrent association between peer victimization and distress, but not anger

Table 2 (continued)

Study	Location	Sample	Design	Outcome	Friendship moderator	Moderation findings
Fitzpatrick & Bussey (2014)	NSW, Australia	N = 1218, Mage = 13.10 & 15.10 years	Cross-sectional	Self-reported social anxiety and depressive symptoms	Quantity & quality	Significant and nonsignificant moderation. Greater positive best friendship quality buffered the concurrent association between social peer victimization and social anxiety, but not depressive symptoms. Greater negative best friendship quality amplified the concurrent association between social peer victimization and depressive symptoms, but not social anxiety. Social peer victimization was concurrently associated with social anxiety and depressive symptoms, regardless of whether participants had a reciprocated best friendship
Fridh et al. (2015)	Skåne (Scania), Sweden	N = 8544, Grade = 9th	Cross-sectional	Self-reported subjective health complaints	Quality	Significant and nonsignificant moderation. Greater friend support buffered the concurrent association between cyber harassment and subjective health complaints for boys, but not girls
Frison et al. (2016)	Belgium	N = 1621, Mage = 14.76 years	Short-term longitudinal: two waves, six months apart	Self-reported depressive symptoms and life satisfaction	Quality	Significant moderation. Greater perceived friend support buffered the association between Facebook victimization and subsequent depressive symptoms and life satisfaction

Table 2 (continued)

Study	Location	Sample	Design	Outcome	Friendship moderator	Moderation findings
Hodges et al. (1999)	Canada	<i>N</i> = 393, <i>Mage</i> = 10.58 years	Short-term longitudinal: two time points across one year	Teacher-reported internalizing and externalizing behaviors	Quantity & quality	Significant and nonsignificant moderation. Having a mutual best friendship buffered associations between peer victimization and subsequent internalizing and externalizing symptoms. Greater perceived best friend companionship amplified the association between peer victimization and subsequent internalizing symptoms. Peer victimization associated with greater subsequent internalizing and externalizing, regardless of perceived best friend protection, security, or conflict
Holt & Espelage (2007)	Large Midwestern city and small Midwestern city, United States	<i>N</i> = 784, <i>Mage</i> = 14.51 years	Cross-sectional	Self-reported anxiety/depression	Quality	Significant moderation. High perceived close friend support amplified the concurrent association between victimization and anxiety/depression
Kochel et al. (2017)	Midwestern United States	<i>N</i> = 483, <i>Mage</i> = 11.10 years	Longitudinal over four years	Parent-, teacher-, and self-reported depressive symptoms	Quantity	Nonsignificant moderation. Peer victimization associated with subsequent depressive symptoms, regardless of whether participants had a mutual best friendship
La Greca & Harrison (2005)	Southeast United States	<i>N</i> = 421, <i>Mage</i> = 16.5 years	Cross-sectional	Self-reported social anxiety and depressive symptoms	Quality	Nonsignificant moderation. Relational and overt peer victimization concurrently associated with anxiety and depressive symptoms, regardless of quality of best friendship

Table 2 (continued)

Study	Location	Sample	Design	Outcome	Friendship moderator	Moderation findings
Lim et al. (2011)	United States	N=96, Mage = 12.8 years	Cross-sectional	Self-reported depressive symptoms	Quality	Significant and nonsignificant moderation. Greater perceived friend support buffered the concurrent association between peer victimization and depressive symptoms for girls, but not boys, with obesity
Palomares-Ruiz et al. (2019)	Madrid, Spain	N=1063, Mage = 11.59 years	Cross-sectional	Self-reported depressive symptoms	Quantity	Significant moderation. Having at least one friend buffered the concurrent association between peer victimization and depressive symptoms, particularly among youth with high levels of withdrawal
Prinstein et al. (2001)	Small city in southern New England, United States	N=566, Grades = 9th–12th	Cross-sectional	Self-reported depressive symptoms, self-esteem, and externalizing symptoms	Quality	Significant and nonsignificant moderation. Greater close friend support buffered the concurrent association between relational, but not overt, peer victimization and externalizing behavior. Relational and overt peer victimization associated with depressive symptoms and (lower) self-esteem, regardless of perceived close friend support

Table 2 (continued)

Study	Location	Sample	Design	Outcome	Friendship moderator	Moderation findings
Reavis et al. (2015)	Small town in the Midwest, United States	<i>N</i> = 77, <i>Grade</i> = 5th	Daily diary	Self-reported daily mood	Quality	Significant and nonsignificant moderation. Greater friend helping behavior buffered the association between daily peer victimization and depressed mood on days when peers did not intervene. Daily peer victimization associated with angrier mood and less positive mood, regardless of friend helping behavior, on days when peers did not intervene
Reid et al. (2016)	United States	<i>N</i> = 1474, <i>Age</i> = 18.15 years	Short-term longitudinal: two time points across one school year	Self-reported depressive symptoms and anxiety	Quality	Significant and nonsignificant moderation. Greater perceived friend support amplified the association between peer victimization and subsequent social anxiety, but not depressive symptoms
Rothon et al. (2011)	East London, England	<i>N</i> = 2789, <i>Age</i> = 12.18 & 14.22 years	Longitudinal across two years	Self-reported depressive symptoms	Quality	Nonsignificant moderation. Peer victimization associated with depressive perceived friend support
Schacter & Juvonen (2018)	Northern and Southern California, United States	<i>N</i> = 5991, <i>Grade</i> = 6th	Short-term longitudinal: two time points across one year	Self-reported social anxiety	Quantity	Significant and nonsignificant moderation. Having at least one friend buffered association between peer victimization and subsequent social anxiety for students in schools with less prosocial, but not more prosocial, peer norms

Table 2 (continued)

Study	Location	Sample	Design	Outcome	Friendship moderator	Moderation findings
Schacter & Juvonen (2020)	Los Angeles, California, United States	<i>N</i> = 1667, <i>Grade</i> = 8th	Short-term longitudinal: two points across one academic year	Self-reported depressive symptoms and social anxiety	Quality	Significant and nonsignificant moderation. Greater perceived best friend emotional support buffered the association between peer victimization and subsequent depressive symptoms for boys. Greater perceived friend support buffered the association between peer victimization and subsequent internalizing symptoms (depressive and anxiety) for girls who perceived their best friend as nonvictimized but amplified the association between peer victimization and subsequent internalizing symptoms for girls who perceived their best friend as victimized
Sumter & Baumgartner (2017)	Netherlands	<i>N</i> = 897, <i>Age</i> = 13.72 years	Cross-sectional	Self-reported psychosomatic complaints	Quality	Nonsignificant moderation. Online and offline peer victimization concurrently associated with psychosomatic complaints, regardless of perceived friend support
Tanigawa et al. (2011)	Central coast region of California, United States	<i>N</i> = 544, <i>Grades</i> = 7th & 8th	Cross-sectional	Self-reported depressive symptoms	Quality	Significant and nonsignificant moderation. Greater perceived close friend support buffered concurrent association between peer victimization and depressive symptoms for boys, but not girls
Uusitalo-Malmivaara (2013)	City in western Finland	<i>N</i> = 737, <i>Age</i> = 12.10 years	Cross-sectional	Self-reported depressive symptoms and somatization	Quantity	Nonsignificant moderation. Peer victimization currently associated with depressive symptoms and somatization, regardless of number of close friends

Table 2 (continued)

Study	Location	Sample	Design	Outcome	Friendship moderator	Moderation findings
Woods et al. (2009)	South London	<i>N</i> = 401, <i>Age</i> = 13.5 years	Cross-sectional	Self-reported emotional problems	Quality	Nonsignificant moderation. Relational peer victimization concurrently associated with emotional problems and direct peer victimization unrelated to emotional problems, regardless of perceived help in friendships
Wright (2016)	Midwestern United States	<i>N</i> = 867, <i>Age</i> = 13.67 years	Longitudinal across three years	Self-reported substance use	Quality	Significant and nonsignificant moderation. Greater perceived close friend support buffered association between peer victimization and subsequent nonmarijuana illicit drug use. Peer victimization associated with subsequent alcohol use, and unrelated to subsequent cigarette smoking or marijuana use, regardless of perceived close friend support
Wright (2017)	Suburbs of a large Midwestern city, United States	<i>N</i> = 131, <i>Grade</i> = 8th	Short-term longitudinal: two time points across one year	Self-reported depressive symptoms	Quality	Nonsignificant moderation. Peer victimization associated with subsequent depressive symptoms regardless of perceived friend support

Table 2 (continued)

Study	Location	Sample	Design	Outcome	Friendship moderator	Moderation findings
Yeung Thompson & Leadbeater (2013)	British Columbia, Canada	<i>N</i> = 662, <i>M</i> age = 15.5 years	Longitudinal across four years	Self-reported internalizing symptoms	Quality	Significant and nonsignificant moderation. Greater perceived friend emotional support buffered the association between victimization (physical and relational) and subsequent internalizing symptoms for (early and late) adolescent boys, but greater perceived friend emotional support amplified the association between victimization (physical only) and subsequent internalizing symptoms for (early, but not late) adolescent girls

half ($n = 19$; 51%) relied on cross-sectional designs. In most studies, participants were recruited through school settings, although several studies incorporated online or telephone recruitment and data collection. Participant ages ranged from 10 to 18, thus spanning early through late adolescence. Among the 70% ($n = 26$) of reviewed studies reporting information about participants’ race or ethnicity, almost half ($n = 12$; 46%) relied on samples that were majority (> 50%) White. Several ($n = 6$) studies that did not report race instead reported nationality and/or nativity (i.e., majority Italian; majority native to Belgium; Swiss adolescents). Five studies (14%) provided information on geographical context (e.g., schools sampled across the Netherlands) but did not provide specific information about participants’ race, ethnicity, nationality, or nativity.

Measurement of Variables

Most studies ($n = 29$; 78%) relied exclusively on self-report (i.e., as opposed to peer or teacher reports) measures of peer victimization, friendship, and health. Youth self-assessment of peer victimization was operationalized in many different ways. For example, some studies examined one index of global peer victimization (e.g., based on Olweus Bully/Victim Questionnaire; Rothon, Head, Klineberg, & Stansfeld, 2011), whereas others distinguished between victimization subtypes such as online vs. offline (e.g., Sumter & Baumgartner, 2017), or overt vs. relational (e.g., Prinstein, Boergers, & Vernberg, 2001).

In terms of friendship variables, more studies focused on friendship quality ($n = 31$) rather than or in addition to friendship quantity ($n = 8$). Friendship quality was evaluated in a variety of ways, including but not limited to perceived positive (e.g., helping; Woods, Done, & Kalsi, 2009) and/or negative (e.g., conflict; Chen & Graham, 2012) qualities of best friendships, as well as more global perceptions of social support from all friends (e.g., Brendgen & Poulin, 2018; Cooley, Fite, Rubens, & Tunno, 2015). Quantity was also evaluated in several ways, including presence versus absence of a single reciprocal friendship (as determined by friendship nomination procedure; e.g., Hodges et al., 1999), whether youth received any friendship nominations (Palomares Ruiz, Oteiza-Nascimento, Toldos, Serrano-Marugán, & Martín-Babarro, 2019; Schacter & Juvonen, 2018), and the total number of friends nominated (regardless of reciprocity; Uusitalo-Malmivaara, 2013).

The majority of studies ($n = 34$; 92%) included at least one mental health outcome. Depressive symptoms were the most commonly evaluated mental health outcome, being measured in slightly over half of the studies (not including those that evaluated more global “internalizing symptoms”). We only identified four studies (11%) that considered whether friendship quantity or quality moderated the effects

of peer victimization on physical health outcomes (subjective health complaints, Fridh et al., 2015; psychosomatic complaints, Sumter & Baumgartner, 2017; somatization, Uusitalo-Malmivaara, 2013; substance use, Wright, 2016).

Moderating Effects of Friendship Quantity on Victimization and Health

Among the eight studies examining friendship quantity as a moderator of peer victimization-mental health links, findings were mixed. In the earliest identified study to consider the moderating role of friendship quantity, Hodges and colleagues (1999) found that early adolescents who had a mutual (i.e., reciprocated) best friendship were protected from the negative effects of peer victimization on subsequent teacher-reported internalizing and externalizing symptoms. One subsequent study replicated a similar pattern, such that the concurrent association between peer victimization and depressive symptoms was buffered among early adolescents who received two or more friendship nominations from peers (Palomares Ruiz et al., 2019).

Despite the two aforementioned studies suggesting a buffering role of friendship quantity, a number of the reviewed studies did not replicate these protective effects. Several studies found that having a best friend (Barcaccia et al., 2018; Fitzpatrick & Bussey, 2014) or a greater number of “secondary” (i.e., nonbest) friendships (Erath, Flanagan, Bierman, & Tu, 2010) did not buffer associations between adolescents’ peer victimization and internalizing difficulties concurrently or longitudinally (Kochel, Bagwell, Ladd, & Rudolph, 2017). Similarly, for physical health, the one study which examined whether friendship quantity moderated associations between peer victimization and a physical health outcome did not find any evidence of protective effects. Specifically, among Finnish sixth-graders, regardless of the youth’s self-reported number of close friends, peer victimization was positively associated with concurrent somatization (Uusitalo-Malmivaara, 2013).

Taken together, there appears to be considerable variation across studies in whether friendship quantity protects or is unrelated to the mental health adjustment of bullied adolescents. The one study investigating the moderating effects of friendship quantity on the physical health consequences of peer victimization indicated a nonsignificant protective role (Uusitalo-Malmivaara, 2013); however, this null association should be carefully considered due to a lack of comparative evidence.

Moderating Effects of Friendship Quality on Victimization and Health

Overall, inconsistent findings were also documented regarding the moderating role of friendship quality for associations

between peer victimization and health outcomes. In line with a stress-buffering model of social relationships (Cohen & Wills, 1985), a handful of studies provided evidence that high-quality friendships protect against the negative effects of peer victimization on mental health. Links between peer victimization and subsequent emotional distress (e.g., depressive symptoms) were attenuated among adolescents who reported greater self-disclosure in their friendships (Adams & Cantin, 2013), higher expectations of their friends (Adams et al., 2018), and greater overall friendship support (Cuadros & Berger, 2016). In a study considering subtypes of victimization, greater perceived friendship support also buffered the link between adolescents’ relational peer victimization and depressive symptoms (Cooley et al., 2015). Similar results emerged in the context of adolescent cyberbullying, such that more time spent with friends and higher perceived friendship quality attenuated daily links between cybervictimization and distress (Espinoza, 2018) and greater perceived friend support buffered the association between Facebook victimization and subsequent depressive symptoms (six months later; Frison, Subrahmanyam, & Eggermont, 2016). In turn, more negative best friendship quality amplified the concurrent association between peer victimization and depressive symptoms (Fitzpatrick & Bussey, 2014). Furthermore, when considering risky health behaviors, longitudinal research indicates that greater perceived support from a close friend buffered the association between peer victimization and later nonmarijuana illicit drug use (Wright, 2016).

Across the studies assessing the moderating role of friendship quality, there were also a number of null findings. In cross-sectional studies, peer victimization was concurrently associated with greater suicidal ideation (Bonanno & Hymel, 2010), self-blame (Chen & Graham, 2012), and internalizing symptoms (La Greca & Harrison, 2005; Prinstein et al., 2001; Rethon et al., 2011), regardless of perceived level of support from friends. Despite finding stress-buffering effects in the context of relational victimization, one study found that overt victimization was related to adolescents’ concurrent depressive symptoms, regardless of perceived friendship support (Cooley et al., 2015). Similarly, in the context of risky health behaviors, peer victimization was positively associated with subsequent alcohol use and unrelated to subsequent cigarette smoking or marijuana use, regardless of perceived close friend support (Wright, 2016).

In longitudinal studies, victimized youth experienced worse emotional well-being one year later, regardless of their overall perceived friendship closeness and affection (Cuadros & Berger, 2016), perceived friendship support (Wright, 2017), or perceived best friend protection, security, or conflict (Hodges et al., 1999). Peer victimization was also associated with greater psychological distress (Bhui, Silva, Harding, & Stansfeld, 2017) and depressive symptoms

(Brendgen & Poulin, 2018; Burke, Sticca, & Perren, 2017) multiple years later, regardless of adolescents' perceived friend support. Additionally, there have been nonsignificant moderator effects of friendship documented in the context of cyberbullying for both mental and physical health outcomes. Specifically, cybervictimization was associated with ninth-graders' concurrent depressive symptoms, anxiety, stress, and self-esteem, regardless of their perceived friendship quality (Aoyama, Saxon Terrill, & Fearon Danielle, 2011), and daily cybervictimization was associated with elevated anger among adolescents, regardless of their perceived friendship quality (Espinoza, 2018). Both online and offline peer victimization were also associated with adolescents' concurrent psychosomatic complaints, regardless of perceived friend support (Sumter & Baumgartner, 2017).

Lastly, in addition to the aforementioned research showing stress-buffering effects or null effects, some studies documented a different pattern reflecting an amplification, rather than protective, effect of high-quality friendships. That is, although supportive friendships are presumed to buffer victimized youth from maladjustment, a number of studies demonstrated that peer victimized youth actually experienced greater emotional distress in the context of highly supportive friendships (Davidson & Demaray, 2007; Hodges et al., 1999; Holt & Espelage, 2007; Reid, Holt, Bowman, Espelage, & Green, 2016; Schacter & Juvonen, 2020; Yeung Thompson & Leadbeater, 2013). As described further below, these amplification effects were particularly pronounced for girls (Davidson & Demaray, 2007; Schacter & Juvonen, 2020; Yeung Thompson & Leadbeater, 2013).

In sum, just as with friendship quantity, there was considerable variation in the moderating role of friendship quality on the health effects of peer victimization. Some studies documented friendship quality to play a buffering role, others documented amplification effects, and still, others found no association. These inconsistencies did not vary reliably across outcomes. For example, while some studies found more supportive, higher-quality friendships to buffer the link between peer victimization and social anxiety, but not depressive symptoms (e.g., Fitzpatrick & Bussey, 2014), other evidence indicated reduced depressive symptoms among victimized youth as a function of higher friendship quality (e.g., Frison et al., 2016). Thus, methodological inconsistency and third variable effects may be at play.

Friendship Moderation Effect Qualifiers

A number of the reviewed studies examined whether the moderating effect of friendship quantity or quality on the association between peer victimization and health further varied as a function of gender or other psychological and contextual variables. For example, having at least one friend was found to buffer the association between peer

victimization and concurrent depressive symptoms among adolescents who reported high, but not low, levels of forgiveness (Barcaccia et al., 2018) and youth who reported high, but not low, levels of withdrawal (Palomares Ruiz et al., 2019). One study, implicating the school context as a relevant factor, found that receiving at least one friendship nomination weakened the association between peer victimization and subsequent social anxiety if students attended schools with weaker, but not stronger, prosocial peer norms (Schacter & Juvonen, 2018).

Gender was the most common variable examined as a qualifier of the moderating role of friendship. For most studies, among those documenting gender differences, friendship quantity and quality appear to buffer the mental health consequences of peer victimization among boys, but not girls. For example, one study found that having a greater number of close reciprocal friendships buffered concurrent associations between peer victimization and anxiety for boys, but not for girls (Erath et al., 2010). Similarly, in the context of friendship quality, friendship support buffered the positive associations between peer victimization and internalizing symptoms for boys, but not girls (Cheng, Cheung, & Cheung, 2008; Tanigawa, Furlong, Felix, & Sharkey, 2011; Yeung Thompson & Leadbeater, 2013). The gender-specific protective effects of friend support also emerged in one study considering a physical health outcome. That is, the positive association between cybervictimization and subjective health problems was attenuated for boys (but not girls) perceiving higher levels of friend support (Fridh et al., 2015).

Among the reviewed studies, patterns for victimized girls were more mixed. On the one hand, girls experiencing peer victimization appeared to benefit from friendships associated with greater disclosure and overall support, as well as reduced conflict. For example, Cuadros and Berger (2016) documented that higher levels of friendship disclosure buffered links between victimization and emotional distress for girls, but not boys (Cuadros & Berger, 2016). Similarly, another study found that greater perceived friend support buffered the link between victimization and depressive symptoms for girls, but not boys (Lim et al., 2011). In addition, lower levels of conflict in the best friendship attenuated the association between peer victimization and concurrent self-blame for girls, but not boys (Chen & Graham, 2012). On the other hand, certain friendship qualities appeared to amplify victimized girls' distress. Victimized girls, but not boys, who perceived their close or best friend to be highly supportive experienced greater internalizing symptoms (Davidson & Demaray, 2007; Yeung Thompson & Leadbeater, 2013), particularly if they perceived their friend also to be victimized (Schacter & Juvonen, 2020).

Discussion

This systematic review examined evidence regarding the potential protective effect of friendship on the mental and physical health of peer victimized adolescents. The review highlights patterns, inconsistencies, and areas requiring further research. In general, studies focused predominantly on the moderating effects of youth's friendship quality compared to quantity. Additionally, far greater attention has been paid to the buffering role of friendship on adolescents' mental health as opposed to physical health. Across studies, there was substantial variation in how peer victimization was measured, what dimensions of friendship were considered, and the broader social and cultural context. In light of such heterogeneity, it is perhaps not surprising that we identified considerable inconsistency in study findings. In turn, this review underscores the need for standardized measurement approaches and terminology, replication of study findings, and rigorous study designs (e.g., longitudinal) to shed light on remaining knowledge gaps.

Friendship Quantity

We found that fewer studies have examined the protective effects of friendship quantity than friendship quality. Although an early study included in this review provided evidence for the power of a single, reciprocated friendship to serve a protective function among bullied youth (Hodges et al., 1999), we only identified two other studies replicating a similar effect, albeit while distinguishing between two or more versus one or zero friendship nominations received from peers (Palomares Ruiz et al., 2019) or additionally testing for gender moderation (Erath et al., 2010). Notably, these three studies supporting the protective function of friendship quantity focused on early adolescents. Developmentally speaking, the mere presence of a friend or two may function as a more powerful buffer in the face of peer victimization at younger, but not older, ages. Insofar as youth develop a greater capacity for emotionally intimate relationships across adolescence (McNelles & Connolly, 1999), simply having a friend may become less important than the qualitative features of that friendship, especially as adolescents attempt to cope with increasingly complex, relational forms of peer victimization (e.g., social manipulation) during middle and high school.

Additionally, the distinction between the presence versus absence of friends may be more meaningful than considering the sheer quantity of friends. Indeed, several studies documenting null friendship moderating effects considered a continuous quantity of friends (e.g., the sum total of friends; Uusitalo-Malmivaara, 2013). Presumably, the size of bullied adolescents' friendship networks (e.g., having six versus

five friends) may be less important than whether they have at least one friend. Such a dichotomous distinction (i.e., at least one friend versus no friends) is often conceptually and methodologically favored among studies examining the main effects of friendship on adolescents' adjustment outcomes (e.g., Lessard & Juvonen, 2018a; Wentzel et al., 2004).

Among the reviewed studies that utilized a dichotomous friendship quantity operationalization and found null effects, there were also several important methodological distinctions from the Hodges and colleagues' (1999) study documenting the protective power of one reciprocal friendship. For example, one reviewed study examined moderating friendship effects across one-year periods during critical school transitions in early and mid-adolescence (Kochel et al., 2017). Results indicated that whether or not students had a best friend in the fifth or ninth grade was unrelated to their victimization-related distress in the sixth or tenth grade, respectively. These findings may reflect the unstable nature of friendships during structural and developmental transitions. Indeed, during the first year of middle school, nearly all students lose or gain at least one friend (Lessard & Juvonen, 2018b); therefore, having a reciprocated friendship in fifth grade may not be enough to protect against victimization-related maladjustment by sixth grade. Thus, to enhance precision in assessing the protective effects of friendship presence versus absence, it may be important to employ shorter-term research designs that minimize opportunities for friendship fluctuation or to longitudinally model variation in adolescents' friendship status using intensive repeated measures.

Our review of the effects of friendship quantity also highlights the importance of considering third variables that may help explain *when* and *for whom* friendship buffers the consequences of peer victimization. Intrapersonal factors, such as forgiveness (Barcaccia et al., 2018) and withdrawal (Palomares Ruiz et al., 2019), emerged as relevant effect qualifiers. Notably, having at least one friend was beneficial for the most vulnerable victimized adolescents—those reporting high levels of forgiveness and withdrawal. Although forgiveness may be adaptive for psychological well-being (Barcaccia et al., 2018), victims that continually forgive their bullies could be more likely targets of continued mistreatment. Highly withdrawn victimized youth, in turn, are likely to lack social support or problem-solving skills to cope with their bullying experiences (Rubin, Stewart, & Coplan, 1995). As such, having a friend may be particularly valuable for those who often forgive and are largely withdrawn from the social milieu. It should also be noted that victimized youth can be vulnerable due to external, contextual factors, such as the prosociality norms at their school. For example, having at least one friend was uniquely protective for victimized youth in “higher risk” school contexts (i.e., less prosocial peer norms; Schacter & Juvonen, 2018). However, given

that only one study examined variation in protective effects across school characteristics, more research is needed to build on this finding.

Friendship Quality

Findings on friendship quality were similar to those of quantity, in that results were mixed depending on the measurement approach, study timeline, and whether additional moderators were considered. As we might expect, several studies supported friendship quality as exhibiting “stress-buffering” features, such that perceiving one’s close friendships as more supportive mitigated adverse outcomes associated with peer victimization. This pattern was identified in both studies examining concurrent (e.g., Reavis, Donohue, & Upchurch, 2015) and longitudinal (e.g., Frison et al., 2016) associations, showing the short- and long-term buffering potential of high friendship quality. Certain aspects of friendship quality also emerged as serving a stress-buffering function, including greater self-disclosure (Adams & Cantin, 2013), greater expectations of friends (Adams et al., 2018), and spending more time with friends (Espinoza, 2018). These findings suggest that youth may benefit most from friendships that permit trust and authenticity, offer greater closeness, and provide availability to meet each other’s needs.

Nevertheless, many studies did not find friendship quality to exhibit a protective effect, and, in some cases, friendship quality even exacerbated peer victimization-related distress. Friendship quality factors that did not contribute to “stress-buffering” outcomes across these studies were perceived support from friends (Cooley et al., 2015) and perceived best friend protection, security, or conflict (Hodges et al., 1999). Furthermore, friendships perceived as highly supportive (Holt & Espelage, 2007) or characterized by more companionship (Hodges et al., 1999) at times contributed to amplified adverse outcomes, particularly for girls (Davidson & Demaray, 2007; Schacter & Juvonen, 2020; Yeung Thompson & Leadbeater, 2013). These findings highlight important nuances in the function of high-quality friendship, suggesting that certain features of supportive friendships, although perhaps beneficial for most youth, can exacerbate adolescents’ distress with other social vulnerabilities (e.g., those who are bullied). Despite offering support resources, close and emotionally intimate friendships of victimized youth may also be laden in co-rumination over problems or maladaptive solution generation, particularly for girls (Rose, 2002; Rose & Rudolph, 2006). These relationships could also be characterized by high relational interdependence, which could relate to low autonomy and self-sufficiency (Murray et al., 2009).

Friendship Effect Qualifiers

In understanding the relationship between peer victimization and health outcomes, we identified contextual factors such as school norms (Schacter & Juvonen, 2018), intrapersonal factors such as the ability to forgive (Barcaccia et al., 2018), and withdrawal from others (Palomares Ruiz et al., 2019) as moderators of friendship’s stress-buffering function. The most frequent moderator identified was gender. In studies that considered gender differences, the protective effects of friendship appeared stronger for boys than girls, such that boys, but not girls, exhibited lower emotional distress if they had more reciprocal friendships (Erath et al., 2010) and felt supported by friends (Cheng et al., 2008). On the other hand, as previously mentioned, amplifying effects of friendship on victimization-distress links were documented more consistently among girls (e.g., Davidson & Demaray, 2007; Schacter & Juvonen, 2020). Taken together, these findings suggest that when considering how and for whom friendships contribute to health outcomes for peer victimized adolescents, it may be important to examine gender differences and whether there are particular dimensions of friendship that are uniquely protective for victimized boys versus victimized girls.

Limitations and Future Directions

The results of the current review should be interpreted in the context of several limitations. Because the current study focused on friendship quantity and quality, we did not review studies that considered other friendship factors, such as specific friend characteristics (e.g., ethnicity, behavioral attributes). However, certain friends may be particularly helpful in reducing the mental and physical health consequences of peer victimization. In fact, growing research suggests that having friends who have experienced peer victimization at some point (as opposed to a best friend currently being bullied; Schacter & Juvonen, 2020) can promote a sense of shared plight that ultimately alleviates psychological distress (Brendgen et al., 2013) and even physical health symptoms (Schacter & Juvonen, 2019).

Additionally, because almost all studies relied on self-report measures of victimization, and these self-report measures widely varied from study to study, we were unable to comment on systematic differences in study findings based on measurement approach. For example, depending on the method used to evaluate peer victimization, reports could reflect students’ experiences across different timelines (e.g., past two months vs. past year) in ways that determine if and how such victimization affects health. Given that almost one fourth of articles relied on teacher or peer reports, discrepancies may also reflect varying perspectives of the victimization. Similarly, a variety of approaches were used to

measure friendship (e.g., evaluating specific dimensions of best friendship vs. overall perceived support across all friends vs. number of self-reported friendships vs. whether or not youth had at least one reciprocated friendship). Thus, although we offer several potential conceptual explanations for inconsistent findings, it is likely that these significant discrepancies in measurement approach account for the mixed results. In turn, it is critical for future researchers to carefully consider their operationalization of friendship quality and quantity in light of prior findings and incorporate multiple indicators of friendship (i.e., within the same study) to allow for direct comparisons across measurement approach. Qualitative studies that investigate adolescents' perceptions of if, when, and how their friends offer support in the face of negative peer experience may also offer insights into the variable findings and provoke interesting new questions for future study.

Given that our review included only four studies examining physical health outcomes, future research is also needed to examine whether and how friendship may reduce physical health risk among bullied adolescents. This topic is important in light of the significant short- and long-term physical harm associated with peer victimization during the adolescent years (Gini & Pozzoli, 2013; Schacter, 2021) and the health risk conferred by social isolation early in life. For example, accounting for other risk factors (i.e., socioeconomic status, obesity, aggression), Caspi and colleagues (2006) found that solitary play and negative peer relations (i.e., "not much liked by other children") during childhood predicted increased risk for cardiovascular disease in adulthood. Thus, expanding research on if and how friendships can mitigate the long-term effects of peer victimization on illness and disease outcomes will provide critical insights into the social determinants of youth physical health.

Lastly, future studies may gain further insight into the inconsistencies reported here by examining friendship quantity and quality simultaneously. Indeed, it remains unknown whether a larger friendship network may be particularly important in the face of low friendship quality. There may also be meaningful differences between a teen that has many friendships, only one of which is high quality, compared to a teen that has only a single friendship that is high quality. Additionally, in the context of a large friendship network, adolescents' social needs may be met from different friendships (e.g., companionship from one friend, emotional support from another). In this case, a single low-quality friendship may be less concerning and perhaps even beneficial to mastering conflict management and negotiation skills. Future research should examine whether dyadic social needs can be achieved across multiple friends and whether high levels of support from one friend can compensate for a conflictual, low-quality relationship with another friend.

Implications for School Mental Health

Friendships fulfill a critical developmental role as youth navigate the ups and downs of adolescence, serving as a social resource to enhance adolescents' social competence and self-worth (Hartup, 1996). Although past research has consistently demonstrated that friendships can protect youth from becoming the target of bullying (Bagwell & Bukowski, 2018; Boulton et al., 1999), the current study highlights considerable variability in the role friendships play in alleviating mental and physical health problems among adolescents experiencing peer victimization. In particular, while both friendship quantity (Lessard & Juvonen, 2018a; Wentzel et al., 2004) and quality (e.g., Waldrip et al., 2008) enhance adolescent well-being overall, our results suggest that the degree to which friendship can reduce victimization-related harm may depend on additional intrapersonal, interpersonal, and contextual factors. For example, do victimized youth possess additional social vulnerabilities, such as a tendency to withdraw (Palomares Ruiz et al., 2019)? Or, are they in a more negative school environment where their peers are less kind to one another (Schacter & Juvonen, 2018)? Understanding the context surrounding victimization experiences is likely critical to inform which aspects and dimensions of friendship may attenuate adverse health sequelae.

Insofar as school-based interventions and policies often incorporate friendships as change agents in remediating mental and physical health and academic concerns (e.g., Karcher, 2009), these findings highlight some of the important nuances that should be considered when attempting to promote positive friendship experiences among adolescents who are bullied by their peers. For example, proactive approaches that facilitate the formation of friendship (e.g., through shared interests, common goals) may be most effective as a prevention mechanism to thwart initial experiences of victimization. Such friendship formation interventions are likely to be especially critical following school transitions, such as the transition from elementary to middle school when many youth lose friends (Lessard & Juvonen, 2018b) and peer victimization increases in prevalence (Nylund, Bellmore, Nishina, & Graham, 2007). Additionally, the impact of maintained, long-term friendship should be considered, and interventions specifically tailored to recognize the role of friendship stability.

When considering secondary prevention approaches, it is important to recognize that the psychological and physical toll of peer mistreatment is robust among youth who have already experienced victimization. As such, teachers should pay careful attention to classroom peer dynamics so that students at risk for victimization-related health concerns can be readily identified and appropriately

supported. Similarly, school counselors can routinely check in with students about their peer experiences to monitor friendship relations among students contending with victimization. While all youth could benefit from social competence and interpersonal training to enhance their experience of beneficial friendships (Singh, 2013), practitioners should use an individualized approach to understand unique friendship needs of bullied youth, taking into account any pre-existing psychological vulnerabilities (e.g., depressive symptoms), their broader social contexts (e.g., school climate), and their most pressing developmental needs.

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