

Navigating the social ecology of bullying and belonging: How school climate and social connection influence student mental health

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Learning Objectives

Attendees should be able to:

- 1 | Describe how social acceptance and school climate interact to influence psychosocial outcomes for youth involved in the bullying dynamic.
- 2 | Formulate social-ecological interventions that leverage social connection and inclusive school climates to mitigate risk associated with bullying involvement across diverse student groups.

Positionality Statement

This presentation is shaped by my training in school psychology and roles as a researcher and clinician, with a focus on understanding these experiences at individual and systems levels and translating evidence into meaningful support and intervention. I also bring lived experience with bullying involvement, which strengthens my commitment to fostering social connection, acceptance, and belonging for all students.

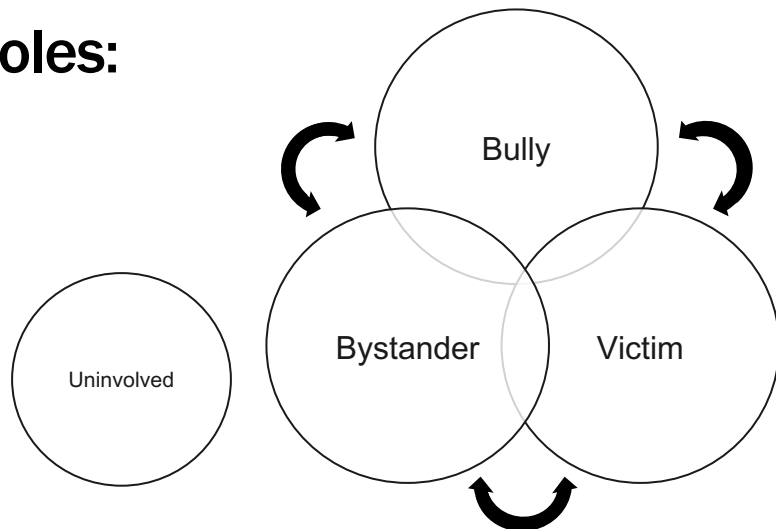
I have no conflict of interests to report.

Defining Bullying

[UNESCO \(2023\)](#) | [Gladden et al. \(2014\)](#) |
Olweus (1993, 1994)



Roles:



“School bullying is a damaging **social process** that is characterized by an **imbalance of power driven by social (societal) and institutional norms**. It is often **repeated** and manifests as **unwanted interpersonal behaviour** among students or school personnel that **causes physical, social, and emotional harm to the targeted individuals or groups, and the wider school community**” (UNESCO, 2023).

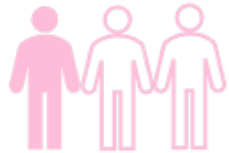
New definition:

- + Recognition of norms and social processes
- + Inclusion of harmful outcomes across systems
- + Acknowledges how adults may participate

Bullying Involvement: Prevalence

[CDC \(2024\)](#) | [Haile et al. \(2024\)](#) | [Thomsen et al. \(2024\)](#)

BY ROLE AND TYPE



- + About 20% of youth report being bullied (23% FTF, 16% Online; [Kennedy, 2021](#))
- + (1) Cyberbullying, (2) relational, (3) verbal, (4) physical bullying
- + Cyberbullying rates remained stable during COVID-19 (17%; [Kennedy & Dendy, 2024](#))

BY DEMOGRAPHICS

- + Sex: Varies by study
 - + Females: relational bullying
 - + Males: physical bullying
- + Gender & Sexual identity: Sexual or gender minority adolescents (47.1% vs. 30%)
- + Race: Multi-racial (30.1%) and White (21.6%) students
- + Disability status: Students with disabilities (44.4%), particularly those with a developmental or observable disability
- + Location: Students in rural schools (23.8% vs. 19%)

ACROSS DEVELOPMENT

- + Peaks in middle school: younger adolescents report higher involvement than older adolescents
 - + 26.9% in 6th grade
 - + 17.7% in 9th grade
- + Physical bullying declines with age but relational bullying increases

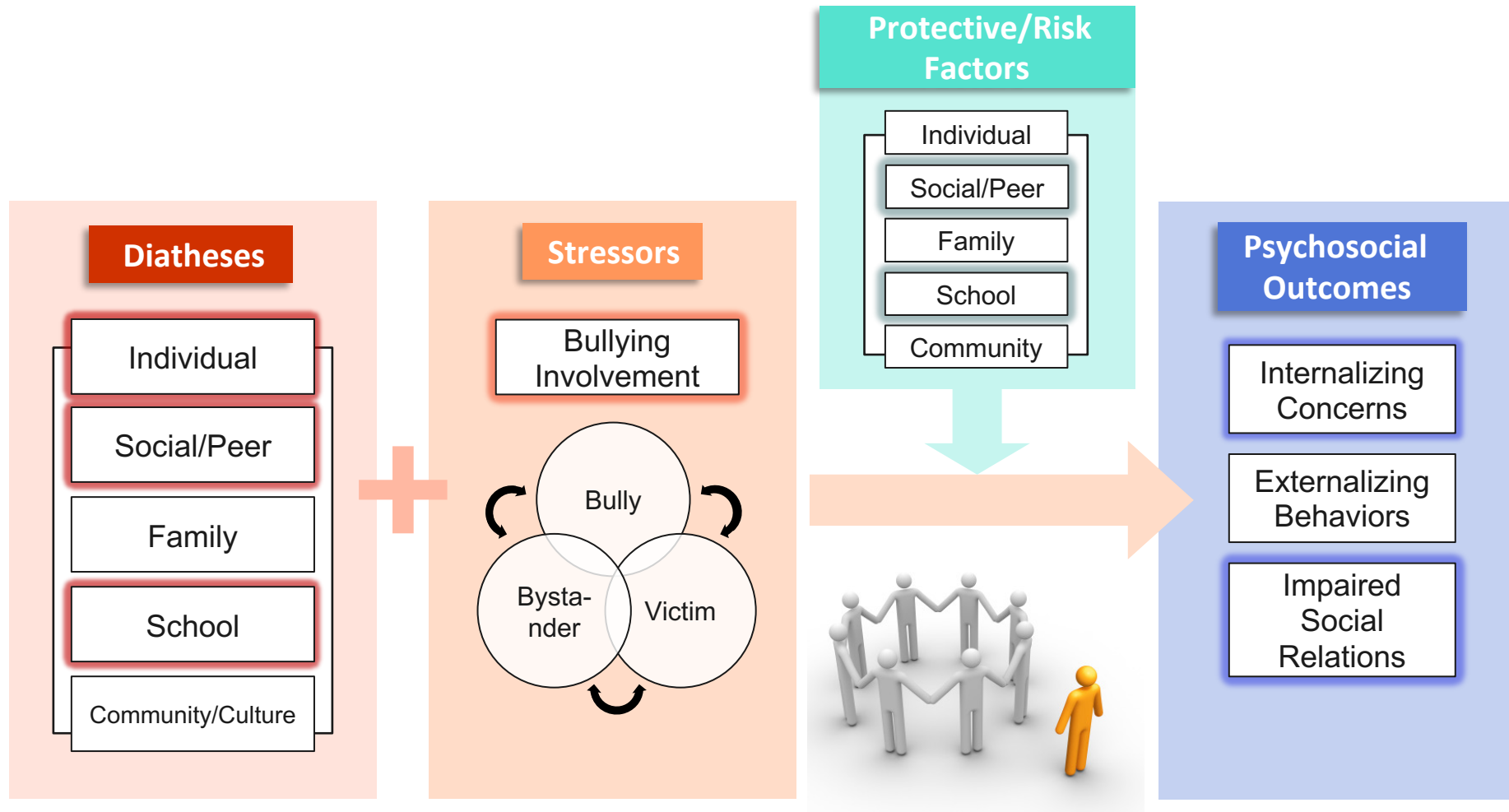
Bullying Involvement: Outcomes

“Previous studies suggest when a kid is excluded from social activities by their peers at school, the outcomes for that kid both short-term and long-term will be just as detrimental as if they got kicked, punched, or slapped every day” (Chad Rose as quoted in [Consiglio, 2022](#)).

- + **Mental health:** higher rates of depression, anxiety, low self-esteem, NSSI, suicidal ideation and behaviors, and substance use (Ariani et al., 2025; Bettencourt et al., 2023; Moore et al., 2017)
- + **Physical health:** increased risk for stomachaches, headaches, sleep difficulties, and chronic pain (Levková et al., 2025; Madsen et al., 2023)
- + **Education:** lower grades, decreased school engagement, increased risk for dropping out (Cornell et al., 2013; Ladd et al., 2017)
- + **Social:** increased risk for peer rejection, loneliness, and lower sense of belonging (Pan et al., 2021; Goldweber et al., 2013)

Social-Ecological Diathesis-Stress Model of Bullying

Swearer & Hymel (2015)



Peer Group Dynamics and Bullying

- + Youth are more likely to associate with peers who are involved in bullying at similar rates to themselves (homophily principle; Espelage et al., 2003)

These norms influence individual behaviors

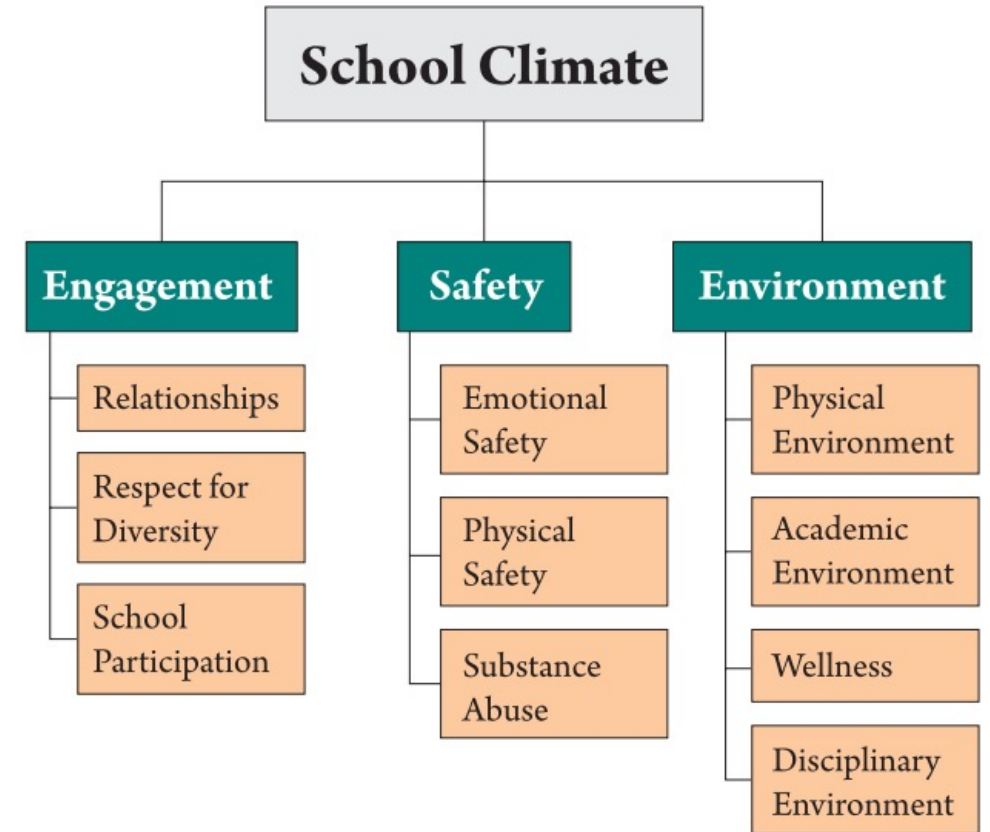
- + Youth involved in bullying are more likely to be rejected by peers, which increases risk for internalizing symptoms, regardless of role (Pan et al., 2021)

Bidirectional relationship

Varies by group-level norms – students involved in bullying are less likely to be rejected when bullying is normative in their environment (Morrow et al., 2019; Sentse et al., 2007)

School Climate and Bullying

- + Negative bidirectional relationship between school climate and bullying involvement
- + **Positive** school climates (Acosta et al., 2019)
 - + Higher perceptions of safety
 - + Lower prevalence of bullying
 - + Greater connection to school and peers
- + **Negative** school climates (Nickerson et al., 2014)
 - + Higher rates of bullying
 - + Lower levels of perceived safety
- + Students involved in bullying report lower school belonging (Goldweber et al., 2013)
 - + Limited examination of differences across identities



From [NASP \(2019\)](#) | U.S. Department of Education (2018)

School Climate and Outcomes for Victims of Bullying

Positive school climates have been associated with...

- + **Lower rates** of bullying (Acosta et al., 2019)
- + **Greater connection** to school and peers (Acosta et al., 2019)
- + **Fewer** emotional and behavioral difficulties (Wong et al., 2021)
- + **Peer dislike and social rejection** (Sentse et al., 2007)
- + **Higher** depressive and anxious symptoms (Garandean et al., 2018; Kaufman et al., 2018)



Risk-Buffering Hypothesis

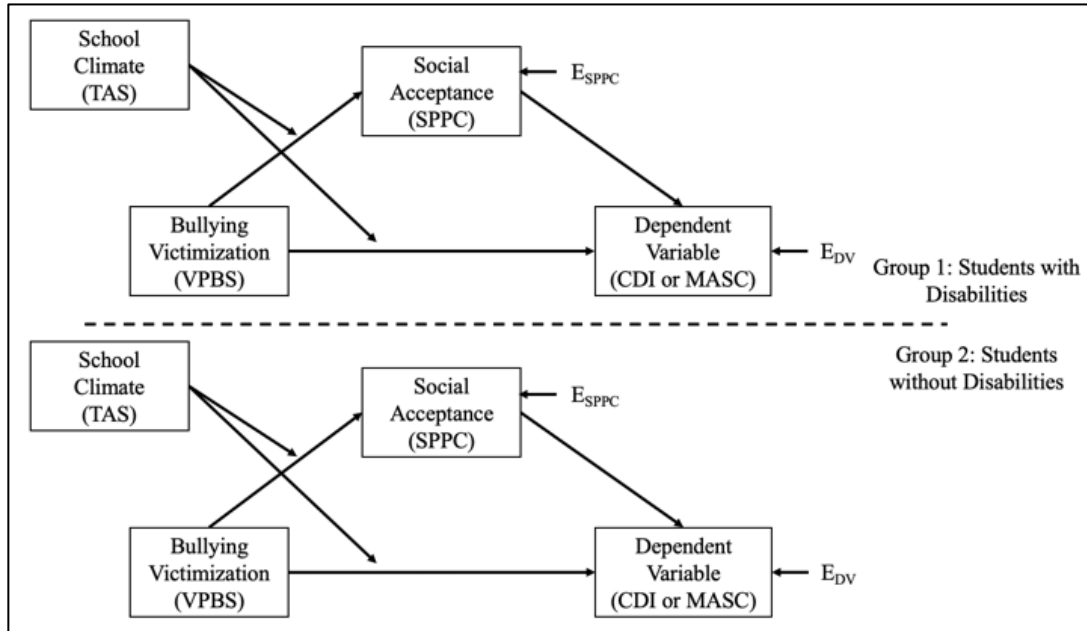


Healthy Context Paradox

(Garandean & Salmivalli, 2019)

Study Findings

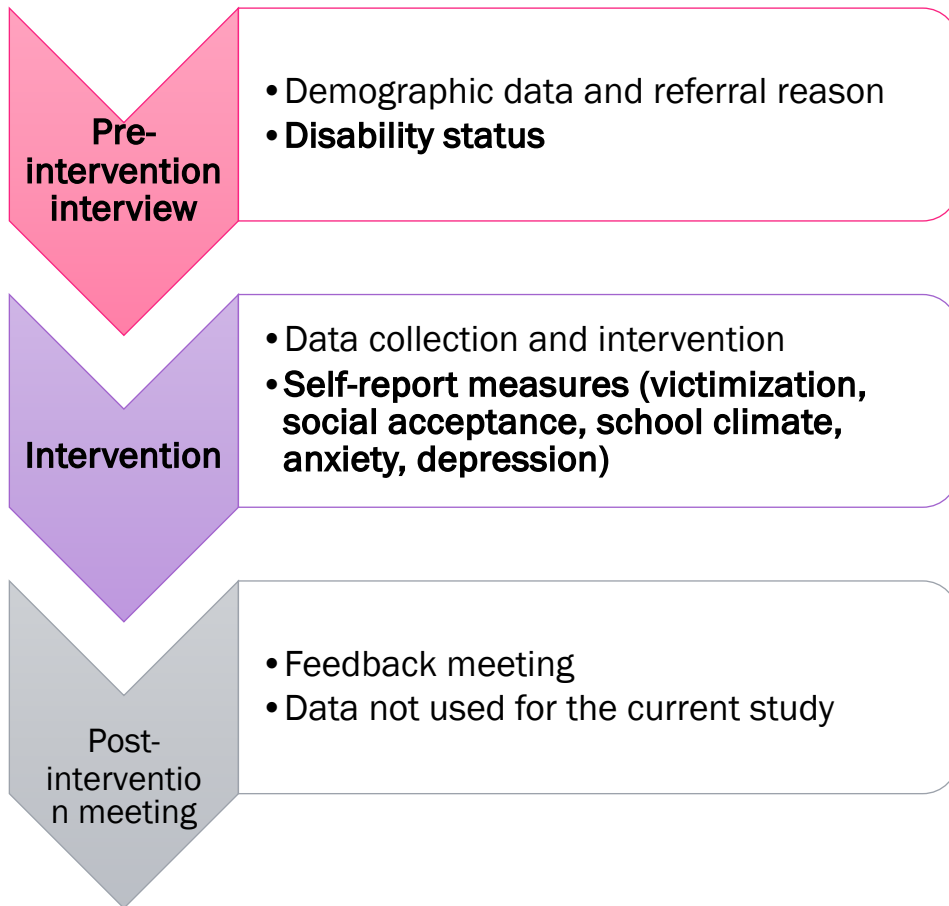
Carney (2025)



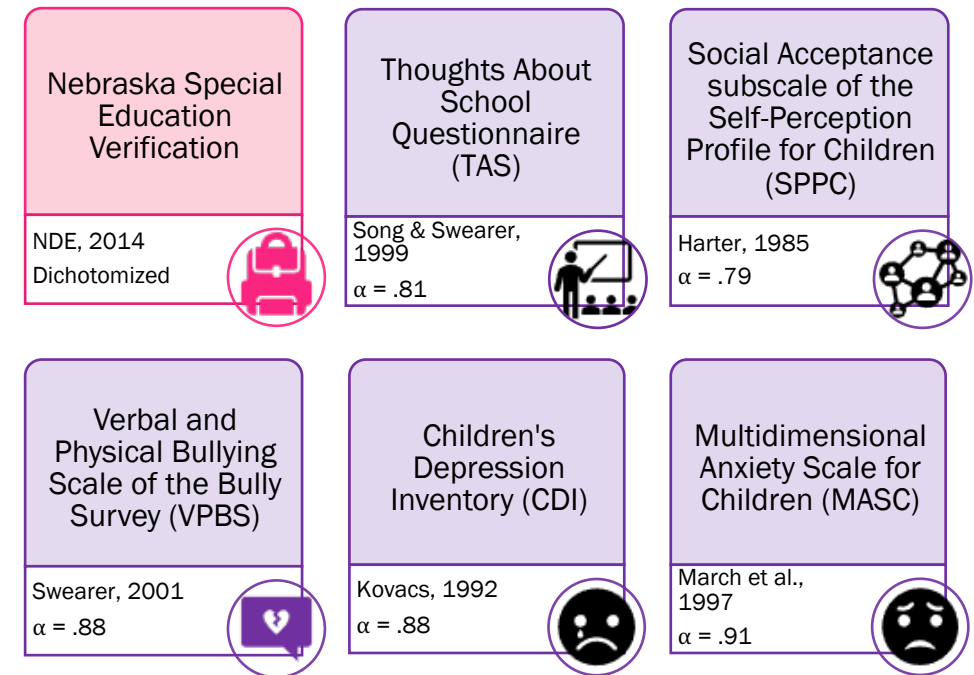
Aims of the Study

1. Examine individual-level mechanisms consistent with the healthy context paradox by investigating whether perceptions of school climate moderated the association between bullying victimization and internalizing symptoms.
2. Test the mediating role of perceived social acceptance.
3. Compare these relationships for students with and without disabilities.

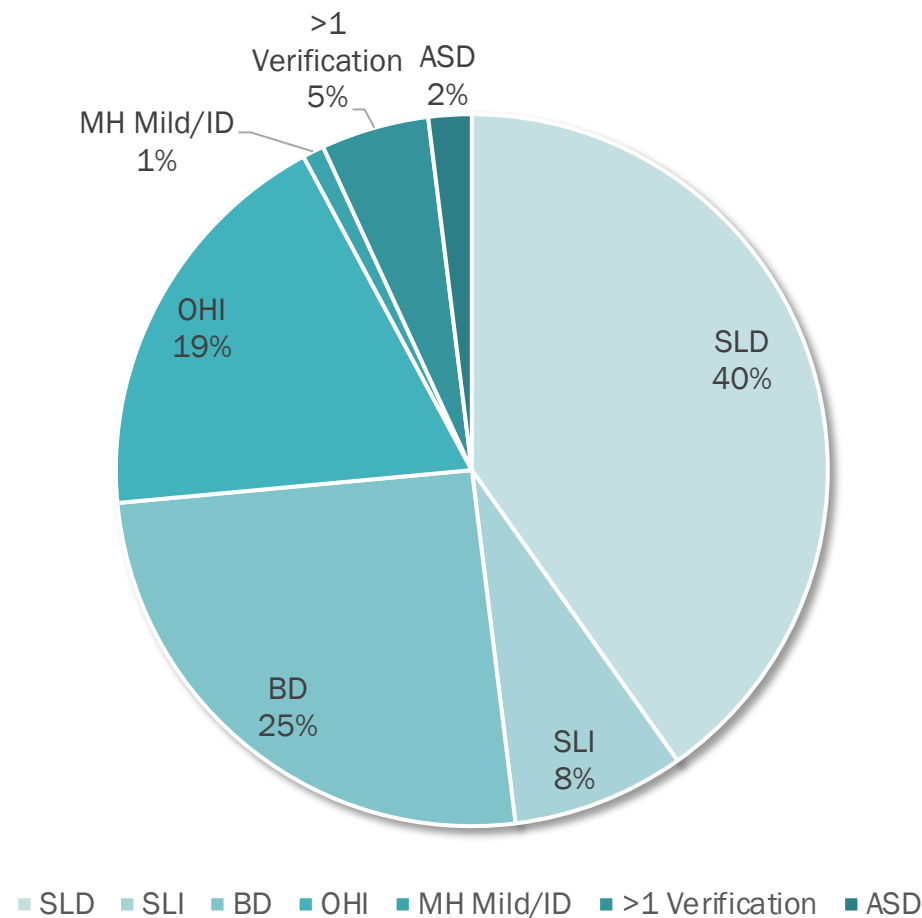
Methodology



- + Data were collected from a larger, IRB-approved study examining a cognitive-behavioral, individualized intervention for bullying among school-aged youth (Swearer et al., 2014)
- + Participants ($N = 304$) were recruited from local elementary, middle, and high schools
- + Participants completed self-report questionnaires and engaged in cognitive-behavioral interventions



Sample

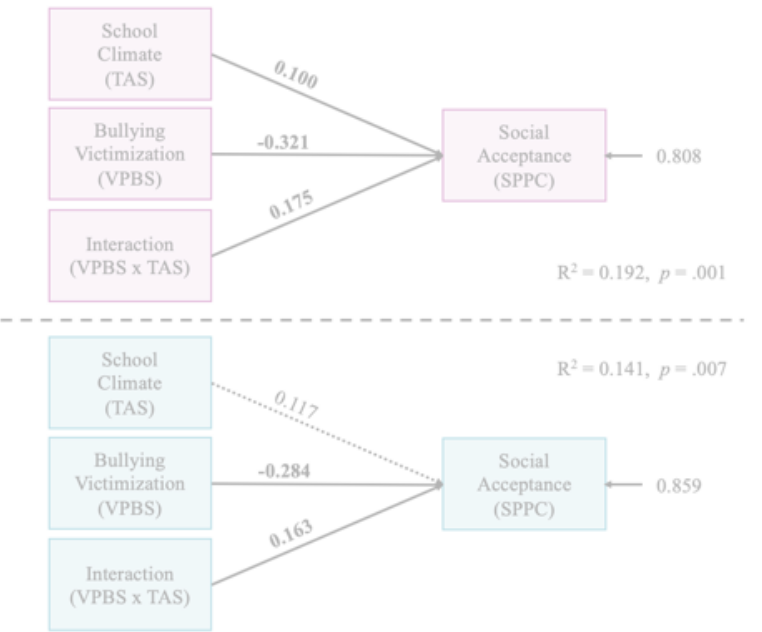


Variable	Students with Disabilities (n = 102)		Students without Disabilities (n = 202)		Total sample (N = 304)	
	M	SD	M	SD	M	SD
Age	11.33	1.74	11.50	1.67	11.44	1.69
Grade	5.91	1.74	6.03	1.67	5.99	1.70
Gender	n	%	n	%	n	%
Female	28	27.5	84	41.6	112	36.8
Male	73	71.6	116	57.4	189	62.2
Other	-	-	2	1.0	2	0.7
Race	n	%	n	%	n	%
White	39	38.2	101	50.0	140	46.1
Black/African American	15	14.7	20	9.9	35	11.5
Latine/Hispanic	7	6.9	27	13.4	34	11.2
Asian American	1	1.0	2	1.0	3	1.0
Native American	2	2.0	5	2.5	7	2.3
Middle Eastern	2	2.0	8	4.0	10	3.3
Biracial	28	27.5	33	16.3	61	30.1
Other	6	5.9	4	2.0	10	3.3
Bullying Victimization	n	%	n	%	n	%
Yes	57	55.9	127	62.9	184	60.5
No	45	44.1	74	36.6	119	39.3

Results: Direct Effects

Social Acceptance

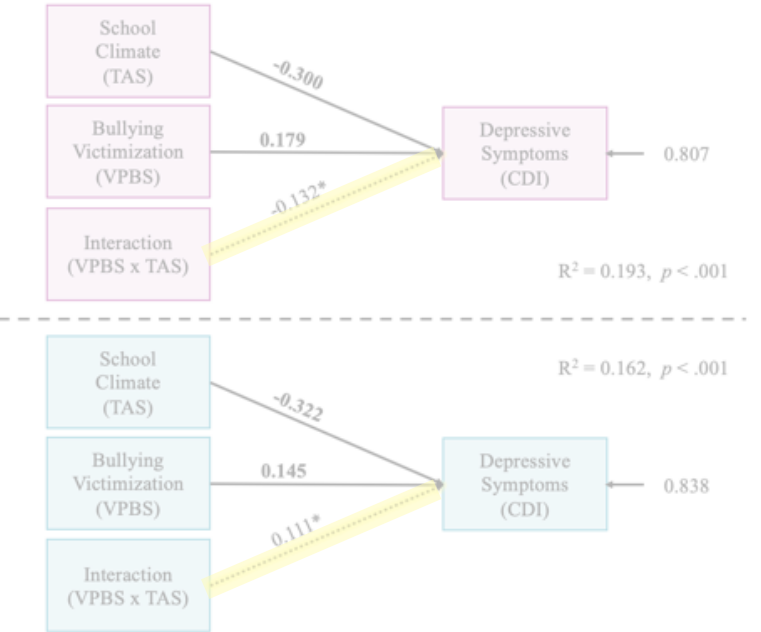
χ^2	df	RMSEA	CFI	SRMR
4.476 ($p = .214$)	3	0.057 ($p = .361$)	0.970	0.032



Depressive

Symptoms

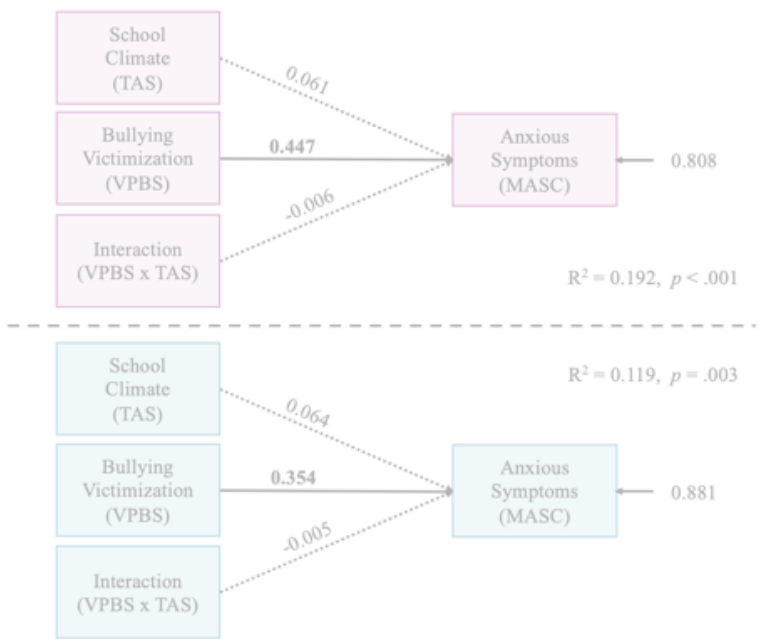
χ^2	df	RMSEA	CFI	SRMR
4.848 ($p = .089$)	2	0.097 ($p = .173$)	0.956	0.036



*paths were estimated between the groups

Anxious Symptoms

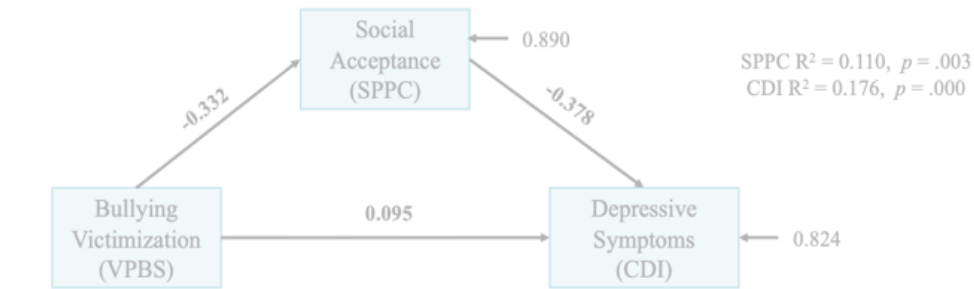
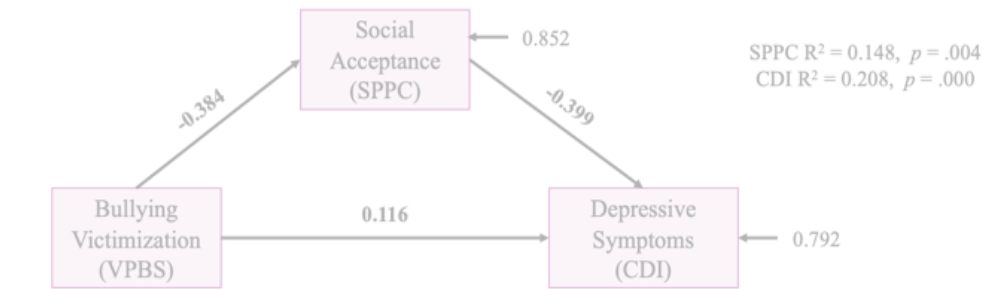
χ^2	df	RMSEA	CFI	SRMR
1.607 ($p = .658$)	3	0.000 ($p = .344$)	0.987	0.053



Results: Indirect Effects

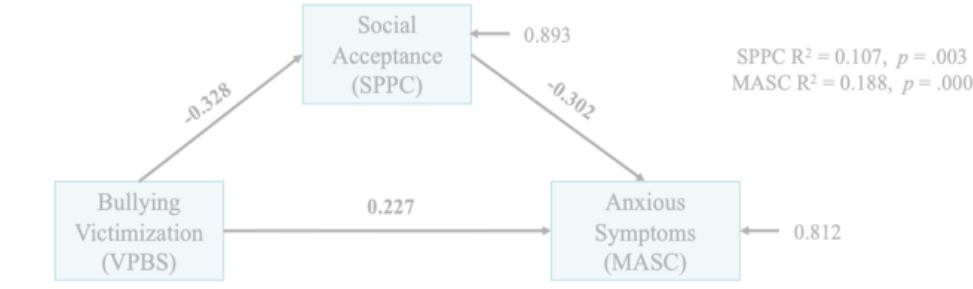
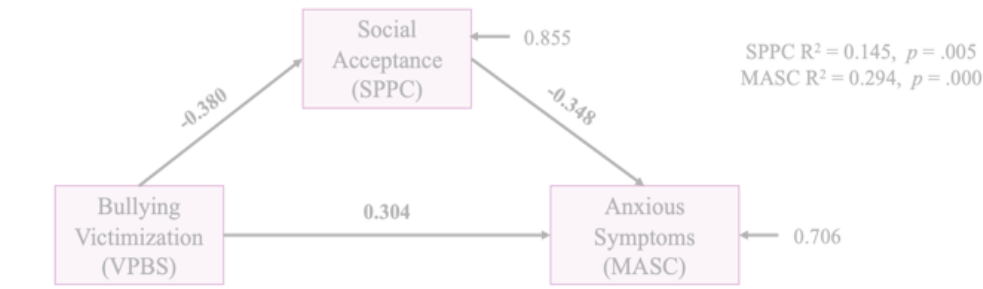
Depressive Symptoms

X ²	df	RMSEA	CFI	SRMR
3.362 (p = .339)	3	0.028 (p = .497)	0.996	0.060



Anxious Symptoms

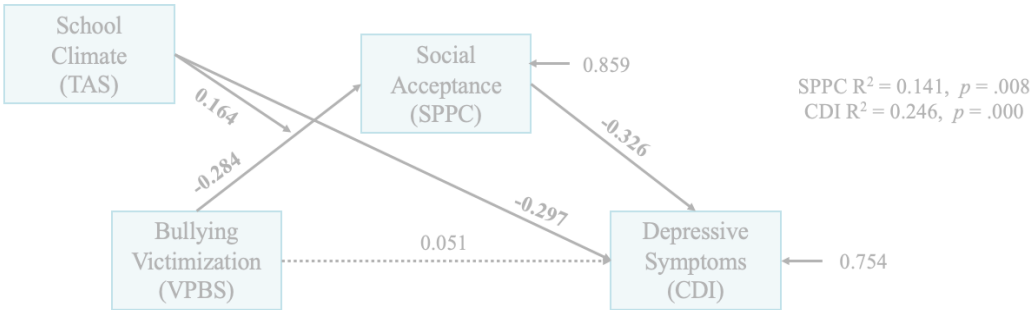
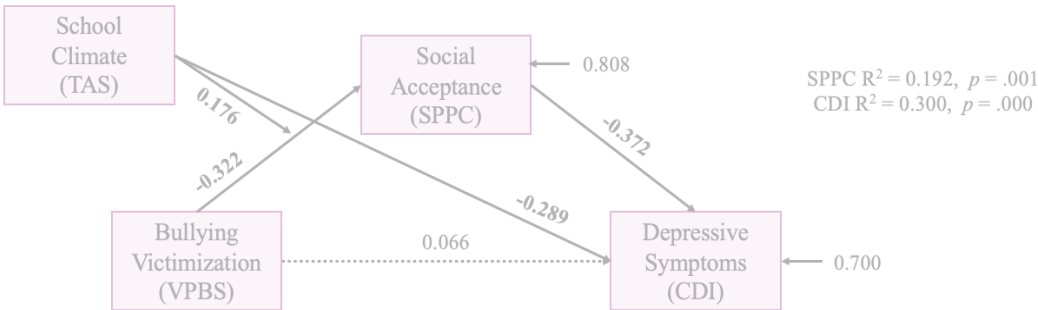
X ²	df	RMSEA	CFI	SRMR
4.642 (p = .200)	3	0.060 (p = .344)	0.987	0.053



Results: Final Models

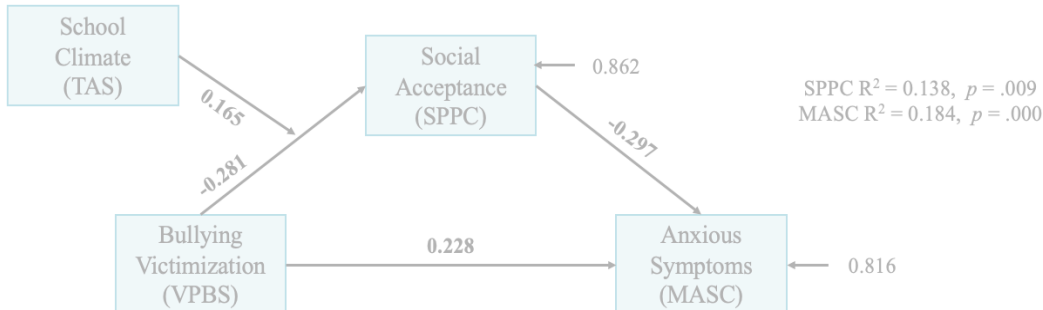
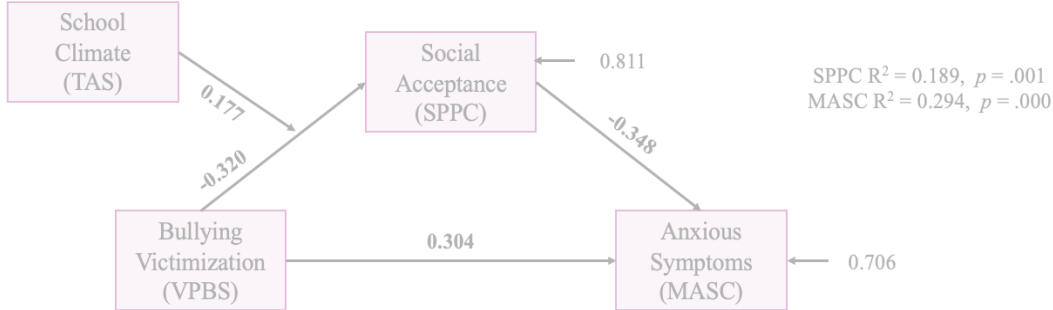
Depressive Symptoms

X ²	df	RMSEA	CFI	SRMR
13.871 (p = .085)	8	0.069 (p = .260)	0.961	0.054

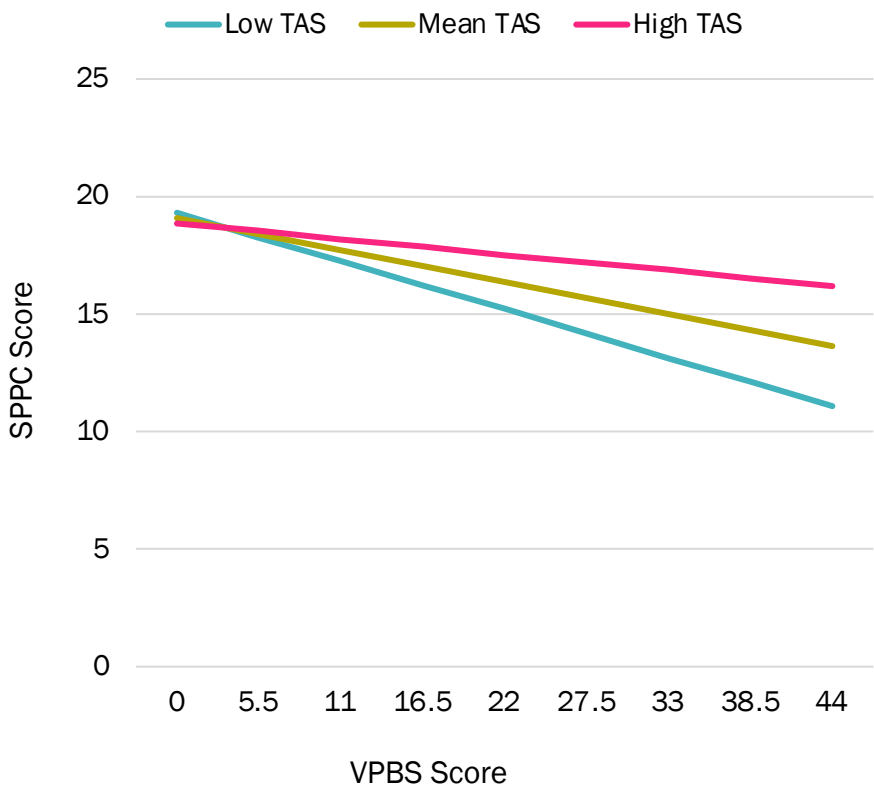


Anxious Symptoms

X ²	df	RMSEA	CFI	SRMR
13.742 (p = .132)	9	0.059 (p = .355)	0.967	0.043



Results: Moderation



Unstandardized Estimates for Conditional Indirect Effects of Perceptions of School Climate at 1 SD Above and Below the Mean

	Estimate	S.E.	Est./S.E.	p-value	Lower 2.5%	Upper 2.5%
Indirect Effect of VPBS on CDI Through SPPC						
Low TAS (-1 SD)	.116	.028	4.120	.000	.067	.179
Mean TAS	.077	.019	3.956	.000	.043	.120
High TAS (+1 SD)	.038	.023	1.648	.099	-.004	.085
Indirect Effect of VPBS on MASC Through SPPC						
Low TAS (-1 SD)	.263	.063	4.163	.000	.154	.405
Mean TAS	.174	.046	3.799	.000	.096	.279
High TAS (+1 SD)	.084	.054	1.550	.121	-.011	.200

Discussion

DIRECT & INDIRECT EFFECTS

- + Bullying victimization (BV) was associated with:
 - + **Lower** perceptions of social acceptance
 - + **Higher** levels of depressive and anxious symptoms
- + Social acceptance was a **partial mediator**
- + **Higher** perceptions of school climate were associated with:
 - + **Higher** perceived social acceptance
 - + **Lower** depressive symptoms

MODERATION

- + Perceptions of school climate **buffered** the negative effects of BV on perceived social acceptance
- + The indirect effect of BV on internalizing symptoms were buffered when perceptions of school climate were high (**moderated mediation**)
- + Consistent with the risk buffering hypothesis but not the healthy context paradox
 - + *Individual-level perceptions of school climate vs. classroom- or school-level measurement of norms*

DISABILITY

- + No significant group differences across constructs
- + Path models were consistent in strength and direction – **shared paths of risk and protection** in the current sample
- + Differences in amount of variance explained by models between groups

	Est.	p-value	Est.	p-value
	SWD		SWOD	
SPPC R ²	.141	.008	.192	.001
CDI R ²	.246	.000	.300	.000

	Est.	p-value	Est.	p-value
	SWD		SWOD	
SPPC R ²	.138	.009	.189	.001
MASC R ²	.184	.000	.294	.000



Limitations

- + Limited generalizability

- Participants were referred to a Tier 3 intervention for bullying involvement, with data gathered across different schools and years

- + All constructs were measured using self-report

- Social desirability and common method variance

- + Insufficient sample sizes to test within-group differences for students with disabilities

- May have limited the ability to see variance in path estimates

- + Cross-sectional design prevents ability to establish temporal precedence

- + Examined an unadjusted model to maintain sufficient power

- Needs replication and inclusion of salient covariates

Practice & Research Recommendations



School Climate Strategies

[Gaffney et al. \(2021\)](#) | [La Salle-Finley \(2023\)](#) | [Salmivalli et al. \(2021\)](#)

- + Schoolwide positive behavior interventions and supports (PBIS)
- + Implementation of social-emotional learning and anti-bullying programs
- + Increase adult presence in common areas for bullying (hallways, lunch/recess)
- + Ensure adults have clear and consistent strategies to respond to bullying in the moment
- + Provide opportunities for student voice and participation in school decision-making
- + Obtain student preferences for recognition – how do they want to be acknowledged for meeting shared norms and expectations?
- + Provide culturally-relevant information to caregivers on bullying and school policies and procedures
- + **Regularly assess individual-level perceptions, classroom-, and school-wide indicators of school climate across student identities**

Social Connection Strategies

- + Opportunities to form friendships based on shared interests, particularly during transition periods (e.g., elementary to middle school)
- + Support and skills-based peer groups for students who have been bullied, especially in more positive contexts (e.g., [BELONG Groups](#))
- + Social/interpersonal training focused on teaching and enhancing skills for healthy and supportive relationships – conflict resolution, interpersonal effectiveness
- + Consider class-wide peer acceptance interventions (e.g., *Making Friends*; [Ostrosky & Favazza, 2022](#)) and cooperative learning activities ([Biggs, 2022](#))
- + Establish and connect youth to culturally-relevant groups, clubs, or activities (e.g., [Gender Sexuality Alliances](#))
- + Help students identify at least one supportive and trustworthy adult across ecological systems
- + **Routinely assess for and monitor friendships, peer dynamics, and self-perceptions of social acceptance**



Future Directions for Research

- + Importance of assessing social acceptance for students involved in bullying
 - Multi-informant methods may be particularly relevant for students with disabilities (Avramidis et al., 2017; Koster et al., 2010)
- + Disaggregation of disability types, other salient identities (intersectionality), and dimensions of school climate
- + Exploration of how formal and informal educational supports impact these relationships
- + Examination of differential impact of types of bullying for diverse student groups (e.g., identity-based bullying)
- + Examining interactions between individual-level perceptions and aggregate, group-level data
 - Individual perceptions of school climate vs. classroom norms vs. school bullying rates



Summary

- + Bullying is a complex behavior embedded in broader social contexts

Ask yourself: What social processes and/or broader norms are encouraging and maintaining this behavior? What is this individual's experience within their peer group and how is that shaped by and interact with the larger environment they are in?
- + Bidirectional interactions between social acceptance and school climate influence bullying involvement trajectories and psychosocial outcomes
- + Interventions and research must consider salient individual-by-context factors

Practitioners should aim to support improvement in school and classroom climate while continuing to offer individualized supports for students whose experiences may differ from their peers'.

Research should prioritize the recruitment and engagement of students with minoritized identities. Methods should include multi-informant procedures and consider how to measure unique lived experiences that the literature may not currently capture.

References

- Acosta, J., Chinman, M., Ebener, P., Malone, P. S., Phillips, A., & Wilks, A. (2019). Understanding the relationship between perceived school climate and bullying: A mediator analysis. *Journal of School Violence*, 18(2), 200-215. <https://doi.org/10.1080/15388220.2018.1453820>
- Ariani, T. A., Putri, A. R., Firdausi, F. A., & Aini, N. (2025). Global prevalence and psychological impact of bullying among children and adolescents: A meta-analysis. *Journal of Affective Disorders*, 385, 119446. <https://doi.org/10.1016/j.jad.2025.119446>
- Bettencourt, A. F., Clary, L. K., lalongo, N., & Musci, R. J. (2023). Long-term consequences of bullying involvement in first grade. *Journal of School Psychology*, 97, 63-76. <https://doi.org/10.1016/j.jsp.2023.01.004>
- Consiglio, B. (2022, August 26). Social exclusion more common form of bullying than physical, verbal aggression. *Show Me Mizzou*. <https://showme.missouri.edu/2022/social-exclusion-more-common-form-of-bullying-than-physical-verbal-aggression/>
- Cornell, D., Gregory, A., Huang, F., & Fan, X. (2013). Perceived prevalence of teasing and bullying predicts high school dropout rates. *Journal of Educational Psychology*, 105(1), 138-149. <https://doi.org/10.1037/a0030416>
- Espelage, D. L., Holt, M. K., & Henkel, R. R. (2003). Examination of peer-group contextual effects on aggression during early adolescence. *Child Development*, 74(1), 205-220. <https://doi.org/10.1111/1467-8624.00531>
- Garandeau, C. F., & Salmivalli, C. (2019). Can healthier contexts be harmful? A new perspective on the plight of victims of bullying. *Child Development Perspectives*, 13(3), 147-152. <https://doi.org/10.1111/cdep.12331>
- Garandeau, C. F., Lee, I. A., & Salmivalli, C. (2018). Decreases in the proportion of bullying victims in the classroom: Effects on the adjustment of remaining victims. *International Journal of Behavioral Development*, 42, 64-72. <https://doi.org/10.1177/0165025416667492>
- Goldweber, A., Waasdorp, T. E., & Bradshaw, C. P. (2013). Examining the link between forms of bullying behaviors and perceptions of safety and belonging among secondary school students. *Journal of School Psychology*, 51, 469-485. <https://doi.org/10.1016/j.jsp.2013.04.004>
- Kaufman, T. M. L., Kretschmer, T., Huitsing, G., & Veenstra, R. (2018). Why does a universal anti-bullying program not help all children? Explaining persistent victimization during an intervention. *Prevention Science*, 19(6), 822-832. <https://doi.org/10.1007/s11221-018-0906-5>
- Ladd, G. W., Ettekal, I., & Kochenderfer-Ladd, B. (2017). Peer victimization trajectories from kindergarten through high school: Differential pathways for children's school engagement and achievement? *Journal of Educational Psychology*, 109(6), 826-841. <https://doi.org/10.1037/edu0000177>
- La Salle-Finley, T. P. (Ed.). (2023). *Creating an inclusive school climate: A school psychology model for supporting marginalized students*. Taylor & Francis.
- Levková, T., Přibík, A., Klocek, A., & Kollerová, L. (2025). Associations between school bullying or victimization and students' sleep problems—A systematic review and meta-analysis. *Trauma, Violence, & Abuse*, 15248380251361451. <https://doi.org/10.1177/15248380251361451>
- Madsen, K. M., Holstein, B. E., & Madsen, K. R. (2023). Recurrent headache, stomachache, and backpain among adolescents: Association with exposure to bullying and parents' socioeconomic status. *Scandinavian Journal of Pain*, 23(3), 563-570. <https://doi.org/10.1515/sjpain-2022-0144>
- Moore, S. E., Norman, R. E., Suetani, S., Thomas, H. J., Sly, P. D., & Scott, J. G. (2017). Consequences of bullying victimization in childhood and adolescence: A systematic review and meta-analysis. *World Journal of Psychiatry*, 7(1), 60. <https://doi.org/10.5498/wjp.v7.i1.60>
- Morrow, M. T., Hubbard, J. A., & Sharp, M. K. (2019). Preadolescents' daily peer victimization and perceived social competence: Moderating effects of classroom aggression. *Journal of Clinical Child and Adolescent Psychology*, 48(5), 716-727. <https://doi.org/10.1080/15374416.2017.1416618>
- Nickerson, A. B., Singleton, D., Schnurr, B., & Collen, M. H. (2014). Perceptions of school climate as a function of bullying involvement. *Journal of Applied School Psychology*, 30(2), 157-181. <https://doi.org/10.1080/15377903.2014.888530>
- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Blackwell Publishers Ltd.
- Olweus, D. (1994). Annotation: Bullying at school: Basic facts and effects of a school-based intervention program. *Journal of Child Psychology and Psychiatry*, 35, 1171-1190.
- Pan, B., Li, T., Ji, L., Malamut, S., Zhang, W., & Salmivalli, C. (2021). Why does classroom-level victimization moderate the association between victimization and depressive symptoms? The "Healthy Context Paradox" and two explanations. *Child Development*, 92(5), 1836-1854. <https://doi.org/10.1111/cdev.13624>
- Sentse, M., Scholte, R., Salmivalli, C., & Voeten, M. (2007). Person-group dissimilarity in involvement in bullying and its relation with social status. *Journal of Abnormal Child Psychology*, 35, 1009-1019. <https://doi.org/10.1007/s10802-007-9150-3>
- Swearer, S. M., & Hymel, S. (2015). Understanding the psychology of bullying: Moving toward a social-ecological diathesis-stress model. *American Psychologist*, 70(4), 344-353. <https://doi.org/10.1037/a0038929>
- Swearer, S. M., Wang, C., Berry, B., & Myers, Z. R. (2014a). Reducing Bullying: Application of Social Cognitive Theory. *Theory into Practice*, 53(4), 271-277. <https://doi.org/10.1080/00405841.2014.947221>
- U.S. Department of Education, Office of Safe and Healthy Students to the American Institutes for Research (AIR). (2018). *School climate*. Washington, DC. Retrieved from: <https://safesupportivelearning.ed.gov/safe-and-healthy-students/school-climate>
- Wong, M. D., Dosanjh, K. K., Jackson, N. J., Rünger, D., & Dudovitz, R. N. (2021). The longitudinal relationship of school climate with adolescent social and emotional health. *BMC Public Health*, 21, 1-8. <https://doi.org/10.1186/s12889-021-10245-6>



Resources

Websites

[Born This Way Foundation - BeKind365](#)

[Cyberbullying Research Center](#)

[NASP Bullying Prevention Resources](#)

[NDE Bullying & Cyberbullying](#)

[PACER National Bullying Prevention Center](#)

[PBIS Bullying Prevention](#)

[PREVNet](#)

[STOMP Out Bullying](#)

[Stopbullying.gov](#)

[Teens against bullying](#) / [Kids against bullying](#)

Books

[Effective Bullying Prevention: A Comprehensive Schoolwide Approach](#)

[Book Lists](#) – Includes books for youth across different ages and caregivers

Questions?

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