
The Influence of School Connectedness on Adolescent Anxiety: A Scoping Review

Ayasha Safina Maulana & Valina Khiarin Nisa*
Faculty of Psychology, Universitas Airlangga, Surabaya, Indonesia

ABSTRACT

This scoping review explores the importance of school connectedness in reducing adolescent anxiety. Adolescence is a substantial stage consisting of increased vulnerability to mental-health issues from academic and social transitions. The study hypothesized that greater school connectedness is correlated with lower anxiety levels. Using the PRISMA-ScR guidelines, a systematic search was administered across PsycINFO, Scopus, PubMed, and Google Scholar for articles between 2009-2025. Thematic analyses are used to synthesize eight empirical studies. The results signify that positive teacher and student relationship, supportive peer connection, and inclusive school environment are strong predictors of emotional adjustment and mitigate social anxiety. In contrast, peer victimization and teacher and student disruption distinctly increase anxiety risks. These findings highlight the significance of implementing inclusive school environments as a main intervention strategy. In conclusion, a strong systemic school connection is crucial to promote adolescent well-being in the long term across various cultural backgrounds.

Keywords: *school connectedness, adolescent, anxiety*

INTRODUCTION

A significant period that involves important biological, cognitive, and social changes occurs during the adolescent stage. This stage involved individuals to face highly multifaceted academic requirements, increasingly profound social relationship interactions, and the formation of identity. These situations result in adolescents' risk of mental health issues, such as anxiety. Longitudinal research highlights that anxiety disorders are a prevalent psychological issue faced by adolescence, with common cases increasing with age and developmental expectations (Steinsbekk et al., 2021).

As adolescents spend most of their time in school, it has become a pivotal developmental context in their lives. The role of the school is not only as an academic institution, it also provides emotional and social settings that play a significant role in constructing students' psychological well-being. In this context, school connectedness is acknowledged as students' perceptions of how much they feel accepted, valued, supported, and belonging to the school community (Waters et al., 2009). School connectedness is a multidimensional concept that consists of the quality of relationship between teacher and student, connection with peers, perception of school equality and safety, and a sense of belonging towards the school system. Various studies have highlighted that a high connection with the school is linked to improved psychological well-being, engagement to studies, and decrease the occurrence of risky behavior in adolescents (Jose et al., 2012; Kim et al., 2022). On the other hand, low levels of school connectedness are mostly correlated with high emotional distress, disengagement from school activities, and the arising of internalizing problems such as anxiety.

Anxiety amongst adolescents is influenced through how they perceive social and emotional encounters at school. Negative teacher and student relationships, interpersonal conflict, and a school climate that are not supportive may lead to feelings of insecurity and feelings of social judgement, which increases the risk of anxiety (Li, 2022). On the contrary, positive relationships with teachers, support from peers, and an inclusive school environment are considered protective factors that help adolescents regulate stress and developmental expectations more adaptively (Ibrahim & Zaatari, 2019). Recent data also emphasize that school connectedness plays a significant role during educational transitions, such as the transition from elementary to secondary school, the stage where anxiety is prevalent. Adolescents who perceive a strong sense of school connectedness usually have lower levels of anxiety and improved emotional regulation during this transition (Lester et al., 2013; Evans et al., 2018). Furthermore, the quality of relationships with peers is an important factor in the context of social anxiety, where their support is able to reduce anxiety, while victimization and social exclusion adds to the risk of anxiety symptoms (Siegel et al., 2009; Gowing, 2019).

Regardless, empirical literature related to school connectedness and adolescent anxiety remain fragmented across various studies with differentiated focuses, methods, and cultural contexts. A plethora of studies explore specific factors of school connectedness separately, such as solely examining teacher and student relationships or peer relationships, without the examination of these aspects as an integrated construct. This situation led to a gap in a comprehensive insight of how school connectedness as a whole correlates to anxiety in adolescents. Therefore, it is required to systematically map and synthesize existing empirical evidence as a whole. A scoping review is regarded as a suitable approach to address this requirement because it provides researchers to map the scope of research, distinguish key themes, and pinpoint remaining research limitations (Munn et al., 2018). The incorporation of relevant empirical findings allows a comprehensive overview of the role of school connectedness correlation to anxiety in adolescents and provides conceptual attributions to the progression of school-based research and interventions.

The research question in this study is how the relationship between school connectedness and anxiety in adolescents is based on empirical research. Several research questions are then constructed which are teacher and student relationship as a factor in school connectedness, how school connectedness acts as a protective factor against anxiety during transition, how

connection with peers relate to social anxiety, and what themes arise from empirical research about school connectedness correlation with adolescent anxiety.

In theory, school connectedness is derived from a developmental ecology approach that highlights the significance of social context in individual development. Schools are perceived as part of a microsystem that acts as an important role in shaping adolescents' psychological well-being through daily experiences with teachers and peers (Waters et al., 2009). The emotional support, safety, and sense of belonging that the school offers are believed to increase emotional regulation and decrease the risk of anxiety. Furthermore, anxiety in adolescence is acknowledged as an emotional experience of worry, fear, and tension that surfaces from academic and social contexts, without being limited to a clinical diagnosis. Thus, school connectedness is positioned as a systemic protective factor with the prospective to reduce anxiety by constructing a supportive, inclusive, and safe school community.

Despite this study using an exploratory scoping review approach, it is formulated on the general hypothesis that higher levels of school connectedness are correlated with lower levels of anxiety in adolescents. The purpose was to map and identify empirical research that engages with the relationship between school connectedness and anxiety in adolescents, explore the role of teacher and student relationship, peer relationships, and educational transition, synthesize the key themes and examine the limitation, and to also provide contributions on school-based interventions.

METHOD

Research Design

This research employed a scoping review design, a systematic literature review approach that aims to map the scope of research, identify key characteristics of studies present, and identify the gaps of a specific area of study. The reason for selecting a scoping review was based on the objective in obtaining a comprehensive overview of the relationship between school connectedness and anxiety in adolescents without constraining it to a specific research design or effect size. This design was considered most suitable due to the literature for this topic remaining heterogeneous pertaining to methods, contexts, and variables studied, making a quantitative meta-analysis a less suitable option.

Participants

The participants in this research pertains to those involved in the empirical studies used in the scoping review. The participants were adolescents encompassing in age from junior high school to high school and those enrolled as active students. The demographic characteristics in this research varied across studies such as their age, gender, and education level. The sampling techniques in the chosen empirical studies varied, such as convenience sampling, cluster sampling, and stratified sampling. This research uses secondary data from published journals therefore there is no statistical power performed. Informed consent are also included in the scoping review from the empirical studies taken, therefore, there are no process of informed consent by the author.

Data Collection Strategy

Several international electronic databases are used to search relevant empirical literature. The combination of keywords are used that includes ("school connectedness" OR "school belonging" OR "school engagement") AND ("adolescent" OR "youth") AND ("anxiety" OR "social anxiety"), in addition to that terms such as teacher and student relationships and peer relationships are used. Inclusion criteria are required in examining the empirical studies, which consists of empirical studies with quantitative, qualitative, or mixed-method designs from English-language journals that are peer-reviewed with measurements or in-depth discussions in relation to school

connectedness, adolescents, and anxiety. Furthermore, exclusion criteria are set to articles that focus solely on other mental health issues that do not include anxiety such as depression, studies that do not include constructs in context of school environment, and non-empirical articles. The whole selection process was implemented following systematic reporting standards from the pre-established inclusion and exclusion criteria.

Data Analysis

The data analysis process started with exporting the entire searched articles into reference management software to remove duplication, then proceeded to a step-by-step screening process that involves title and abstract analyzation and full-text review to guarantee eligibility based on inclusion and exclusion criteria. The studies that fulfilled the criteria, key information was mapped in a systematic manner, including author name, publication year, country, sample characteristics, measurement instrument, study design, and key findings in regard to the relationships amongst these variables. A thematic analysis approach is employed to organize and synthesize the results through grouping studies into key themes for instance teacher and student relationships, peer relationships, and school transition. Similarities and patterns in the reviewed studies were identified to present a narrative synthesis outlining how school connectedness influences anxiety in adolescents. To strengthen credibility, this study implemented strategies which include the use of PRISMA-ScR checklist as a reporting guide, clear inclusion and exclusion criteria to help reduce selection bias, and a clear description of the search strategy to enable future research to update or replicate the review.

RESULTS**Table 1. Study and Findings**

Study	Sample	Research Design	Findings
Jose et al. (2012)	Students aged 10–15 years	Longitudinal study	Found a significant connection between school connectedness and well-being; connection with teachers had a higher impact than peers for this age group.
Lester et al. (2013)	Adolescents in secondary schools	Cross-lagged model	Demonstrated a steady relationship where enhanced school connectedness predicts lower levels of anxiety during the transition to secondary school.
Li (2022)	Primary school students	Correlational study	Showed that teacher-student intimacy reduces social avoidance and distress, while conflict increases anxiety levels.
Gowing (2019)	336 students aged 12–18	Mixed-methods approach	Identified peers as a primary reason students want to stay in school; lack of peer connection leads to isolation and disengagement.
Siegel et al. (2009)	228 adolescents aged 14–19	Quantitative study	Confirmed that social anxiety levels are significantly higher when peer victimization, such as manipulation or exclusion, is present.
In, Kim, & Carney (2019)	594 primary school students in Malaysia.	Quantitative (Survey), Mediation Analysis.	School connectedness acts as a full-time mediator between social skills and life satisfaction. Furthermore, a school climate that appreciates diversity is highly correlated with student life satisfaction.
Elliott & Tudge (2012)	School-age students in	Cross-Cultural Comparative	Even though the United States and Russia have contrasting structural and cultural

the United States and Russia.	Studies (based on the Bioecological Model).	differences, it proves that daily interactions at school are still the primary factor for student development and engagement.
Niehaus, Irvin, & Rogelberg (2016)	1,130 Latino adolescents in the United States. Longitudinal Quantitative (Regression Analysis).	School connectedness is an essential and strong predictor of high school graduation and college enrollment, despite the influence of other environmental risk factors in Latino adolescents.

This review encompasses a research setting of empirical studies across different countries and educational levels, starting from elementary to secondary school, with ranges of participants in age from early to middle adolescence. As seen on the thematic analysis of the eight primary studies discovered, three main themes were identified that outline the relationship between school environment and student's psychological health. To begin with, the quality of teacher and student relationships is highly connected with anxiety levels, with relationship intimacy functioning as a protective factor while conflict and absence of support increase anxiety levels. Following this, school connectedness became evident as an important predictor of lower anxiety levels, specifically during challenging educational transitions. Finally, peer relationships are particularly linked with social anxiety, with peer support escalating students' motivation to remain in school, while victimization and social isolation consistently intensify anxiety symptoms. As a whole, these findings indicate that daily interactions, inclusive school community, and social skills are essential mechanisms influencing the well-being, life satisfaction, and academic achievement of adolescents among diverse cultural backgrounds.

DISCUSSION

The results in this review provide consistent evidence for the hypothesis that higher levels of school connectedness are correlated with lower levels of anxiety in adolescents. Significantly, the quality of teacher and student relationships were identified as a key foundation for the creation of a psychologically safe environment, teacher and student intimate relationships were shown to decrease social avoidance (Li, 2022). Teachers that are considered fair, caring, and approachable create a classroom environment that decreases fear of assessment and academic failure, therefore mitigating the risk for anxiety in regards to classroom performance. This is further supported by the finding that in early adolescence, relationships with teachers have a higher impact on emotional well-being than connection with peers (Jose et al., 2012).

Adolescence transitioning from elementary to secondary school has been regarded as a critical developmental stage where the risk of anxiety typically increases because of changes in academic requirements and the school community. Results indicate that a strong school connectedness during this stage is a highly needed protective factor, as it consistently predicts lower levels of anxiety in the adaptation to the new school community. (Lester et al., 2013). This implicates that a sense of belonging and systemic support led to students being able to manage the uncertainty of the transition through adaptation.

In addition, peer relationships have a major contributing factor on social anxiety. Students are able to increase their motivation to stay invested in school through acceptance and positive friendships, on the other hand absence of positive relationships with peers leads to disconnection and isolation (Gowing, 2019). Particularly, when forms of peer victimization such as manipulation or exclusion are present, levels of social anxiety are strengthened (Siegel et al., 2009). Despite the limitations of this research because of the reliance on self-report data and

cross-sectional designs, this research has consistently searched across diverse cultures such as the United States, Malaysia, and Russia. This suggested that frequent interactions and inclusive school environments are universal mechanisms contributing to adolescents' development (Elliott & Tudge, 2012; In, Kim, & Carney, 2019). The contribution of these findings towards psychological science is through the confirmation that school connectedness is a substantial predictor of adolescent well-being and academic success in the long-term, outweighing the influence of other environmental risk factors (Niehaus, Irvin, & Rogelberg, 2016).

CONCLUSION

This research concludes that school connectedness is a substantial protective factor that profoundly determines anxiety levels in adolescents. The synthesis of the analysis, results, and discussion establish that a sense of belonging, supportive relationship with teachers, and positive connection with peers are not merely supporting factors, however, they are the key factors that reduce academic challenges and stress. These findings contribute to psychological science through the confirmation of adolescents that feel valued and have emotional connection would lead to a lower risk of developing anxiety symptoms that persist and social withdrawal can be systemically mitigated. On the contrary, interpersonal relationships that are negative and peer victimization are strong predictors of increased psychological vulnerability within adolescents.

Schools and parents are suggested to prioritize policies that contribute to an inclusive school climate, such as mentoring programs, anti-bullying programs, and socio-emotional skills training for teachers in being able to respond to students' mental health. Adolescents are also advised to be an active participant in school programs and the development of help-seeking actions are strongly recommended to strengthen resilience through social interactions. Future researchers are expected to construct longitudinal and mixed-method research design in mapping a more in-depth causal pathways, and explore the influence of more various cultural backgrounds and education symptoms.

ACKNOWLEDGMENTS

The author expresses her gratitude to Allah SWT, Bu Valina Khiarin Nisa, S.Psi., M.Sc. as the author's supervisor, alongside family and friends, and the contribution of selected empirical data in supporting this article.

DECLARATION OF CONFLICTING INTERESTS

Ayasha Safina Maulana does not work for, consult for, own shares in, or receive funding from any company or organization that might profit from the publication of this manuscript.

REFERENCES

- Coffey, A. (2013). Relationships: The key to successful transition from primary to secondary school? *Improving Schools*, 16(3), 261–271. <https://doi.org/10.1177/1365480213505181>
- Elliott, J. G., & Tudge, J. (2011). Multiple contexts, motivation and student engagement in the USA and Russia. *European Journal of Psychology of Education*, 27(2), 161–175. <https://doi.org/10.1007/s10212-011-0080-7>
- Evans, D., Borriello, G. A., & Field, A. P. (2018). A review of the academic and psychological impact of the transition to secondary education. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.01482>
- Gowing, A. (2019). Peer-peer relationships: A key factor in enhancing school connectedness and belonging. *Educational and Child Psychology*, 36(2), 64–77. <https://doi.org/10.53841/bpsecp.2019.36.2.64>
- Grant, D. M. (2013). Anxiety in adolescence. In *Springer eBooks* (pp. 507–519). https://doi.org/10.1007/978-1-4614-6633-8_32
- Ibrahim, A., & Zaatari, W. E. (2019). The teacher–student relationship and adolescents’ sense of school belonging. *International Journal of Adolescence and Youth*, 25(1), 382–395. <https://doi.org/10.1080/02673843.2019.1660998>
- In, H., Kim, H., & Carney, J. V. (2019). The relation of social skills and school climate of diversity to children’s life satisfaction: The mediating role of school connectedness. *Psychology in the Schools*, 56(6), 1023–1036. <https://doi.org/10.1002/pits.22247>
- Jose, P. E., Ryan, N., & Pryor, J. (2012). Does social connectedness promote a greater sense of Well-Being in adolescence over time? *Journal of Research on Adolescence*, 22(2), 235–251. <https://doi.org/10.1111/j.1532-7795.2012.00783.x>
- Kim, H., Carney, J. V., & Hazler, R. J. (2022). Promoting school connectedness: A critical review of definitions and theoretical models for school-based interventions. *Preventing School Failure Alternative Education for Children and Youth*, 67(4), 256–264. <https://doi.org/10.1080/1045988x.2022.2119359>
- Lester, L., Waters, S., & Cross, D. (2013). The relationship between school connectedness and mental health during the transition to secondary School: A Path analysis. *Australian Journal of Guidance and Counselling*, 23(2), 157–171. <https://doi.org/10.1017/jgc.2013.20>
- Li, B. (2022). The influence of Teacher-Student Relationship on Anxiety and Depression in children. *Journal of Education Humanities and Social Sciences*, 3, 232–238. <https://doi.org/10.54097/ehss.v3i.1691>
- Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, 18(1), 143. <https://doi.org/10.1186/s12874-018-0611-x>
- Niehaus, K., Irvin, M. J., & Rogelberg, S. (2016). School connectedness and valuing as predictors of high school completion and postsecondary attendance among Latino youth. *Contemporary Educational Psychology*, 44–45, 54–67. <https://doi.org/10.1016/j.cedpsych.2016.02.003>
- Siegel, R. S., La Greca, A. M., & Harrison, H. M. (2009). Peer victimization and social anxiety in Adolescents: Prospective and Reciprocal relationships. *Journal of Youth and Adolescence*, 38(8), 1096–1109. <https://doi.org/10.1007/s10964-009-9392-1>
- Steiner, R. J., Sheremenko, G., Lesesne, C., Dittus, P. J., Sieving, R. E., & Ethier, K. A. (2019). Adolescent connectedness and adult health outcomes. *PEDIATRICS*, 144(1). <https://doi.org/10.1542/peds.2018-3766>
- Steinsbekk, S., Ranum, B., & Wichstrøm, L. (2021). Prevalence and course of anxiety disorders and symptoms from preschool to adolescence: a 6-wave community study. *Journal of Child Psychology and Psychiatry*, 63(5), 527–534. <https://doi.org/10.1111/icpp.13487>

School Connectedness and Adolescent Anxiety

Waters, S. K., Cross, D. S., & Runions, K. (2009). Social and ecological structures Supporting adolescent connectedness to school: a theoretical model. *Journal of School Health*, 79(11), 516–524. <https://doi.org/10.1111/j.1746-1561.2009.00443.x>