

Internalizing Problems and Declines in Academic Achievement: Mechanisms and Protective Factors

Elena Gagliano^{1,}, and Wendy Troop-Gordon²*

^{1,*} Undergraduate Student, College of Human Sciences, Auburn University

² Professor, College of Human Sciences, Auburn University

Internalizing problems and disorders, characterized by depressive, withdrawn, and anxious symptoms, can have a marked effect on students' academic performance (Pedersen et al., 2019). Although this has been attributed to a myriad of causes (e.g., difficulty concentrating, poor memory), internalizing problems are often accompanied by low school involvement and reduced classroom participation (Loukas et al., 2016). Thus, lack of school engagement may be an important factor in explaining the relation between internalizing problems and declines in academic achievement.

Despite this, some students who exhibit internalizing symptoms continue to excel academically (Deighton et al., 2018; Masten et al., 2005). Previous literature has highlighted the protective effect of close student-teacher relationships for students struggling with emotional problems (Baker et al., 2008, Pakarinen et al., 2018; Shi & Ettekal, 2021). For children with internalizing problems, a relationship with the teacher high in warmth and low in conflict may help them remain engaged in the classroom and, in turn, academically successful. Accordingly, to better understand both how and when internalizing problems lead to poor school performance, this study investigated whether: a) classroom engagement mediates the association between internalizing problems (i.e., depression and anxiety) and academic development, and b) closeness or conflict with the classroom teacher moderate the association between internalizing symptoms and classroom engagement.

Data from a 17-year longitudinal study of the academic, interpersonal, and psychological development of 457 children were utilized. This study used data collected when the children were in the 4th through 7th grades. Each year, students completed the Wide Range Achievement Test (WRAT; Wilkinson, 1993) which

measures reading, spelling, and math abilities, and teachers completed the Teacher Rating Scale of School Adjustment (TRSSA; Birch & Ladd, 1997), an assessment of classroom engagement. When children were in the 4th grade, teacher-reported closeness and conflict were measured using the Student-Teacher Relationship Scale (STRS; Pianta, 2001), and self-reports of internalizing problems were measured using the Child Behavior Scale (CBS; Ladd & Profilet, 1996).

Four Latent Curve Models with Structured Residuals were estimated. A depiction of the conceptual framework behind this research can be seen in Figure 1. Across the four years studied, a within-person increase in engagement predicted a subsequent increase in achievement, and a within-person increase in achievement predicted a subsequent increase in school engagement. Unexpectedly, internalizing problems in 4th grade were not associated with a concurrent change in engagement scores. Rather, depression and anxiety were associated with a decrease in children's academic achievement, but only for those who had low closeness or high conflict with their teacher. Moreover, for children with a poor relationship with their teacher, internalizing problems were indirectly associated with a decrease in school engagement through reduced academic achievement.

These findings help us better understand the inconsistent results from previous studies investigating associations between internalizing problems and academic achievement. The results suggest that internalizing problems can have effects on achievement but only when they co-occur with a relationship with the teacher characterized by low warmth and frequent conflict. Reduced academic achievement may then lead to a cycle of increasing school disengagement and worsening academic development over time. The findings, however,

* Corresponding author: ekg0022@auburn.edu

did not explain why internalizing problems are associated with decreases in academic achievement. Thus, further research should be conducted to examine other factors that may be mediating the effects of internalizing

problems on children's academic development in order to better shed light on the intricate pathways affecting school adjustment and achievement.

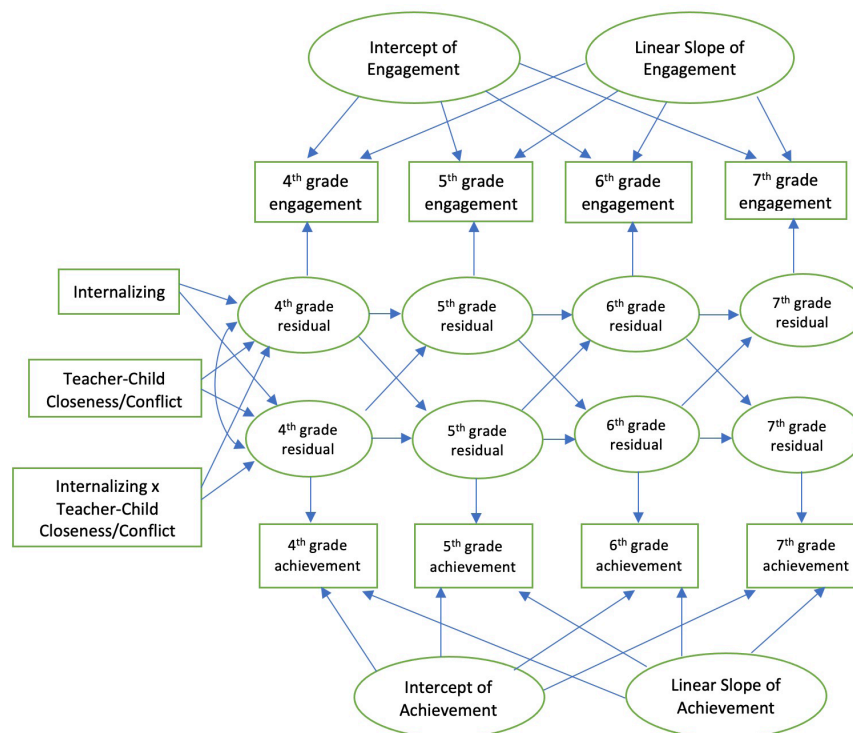


Fig. 1. Conceptual framework for Latent Curve Models with Structured Residuals.

Statement of Research Advisor

Elena identified an important risk factor for poor academic achievement, internalizing problems, and through a careful literature search, realized that little is known as to what accounts for why internalizing problems jeopardizes youth's achievement or what factors protect students with internalizing problems from academic losses. She utilized a highly sophisticated statistical analysis, latent growth curve modeling with structured residuals, to analyze data from a large longitudinal study. Her findings demonstrate that only when youth with internalizing problems have poor relationships with their teacher are they at risk for worsening academic achievement, prompting a cycle of school disengagement and further academic decline.

- Wendy Troop-Gordon, Department of Human Development, College of Human Sciences

References

[1] Baker, J. A., Grant, S., & Morlock, L. (2008). The teacher-student relationship as a developmental con-

text for children with internalizing or externalizing behavior problems. *School Psychology Quarterly*, 23(1), 3–15. <https://doi.org/10.1037/1045-3830.23.1.3>

[2] Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology*, 35(1), 61–79. [https://doi.org/10.1016/s0022-4405\(96\)00029-5](https://doi.org/10.1016/s0022-4405(96)00029-5)

[3] Deighton, J., Humphrey, N., Belsky, J., Boehnke, J., Vostanis, P., & Patalay, P. (2018). Longitudinal pathways between mental health difficulties and academic performance during Middle Childhood and early adolescence. *British Journal of Developmental Psychology*, 36(1), 110–126. <https://doi.org/10.1111/bjdp.12218>

[4] Ladd, G. W., & Profilet, S. M. (1996). The Child Behavior Scale: A teacher-report measure of young children's aggressive, withdrawn, and prosocial behaviors. *Developmental Psychology*, 32(6), 1008–1024. <https://doi.org/10.1037/0012-1649.32.6.1008>

[5] Loukas, A., Cance, J. D., & Batanova, M. (2016). Trajectories of school connectedness across the middle school years: Examining the roles of adolescent's internalizing and externalizing problems. *Youth & Society*, 48(4), 557–576. <https://doi.org/10.1177/0044118x13504419>

[6] Masten, A. S., Roisman, G. I., Long, J. D., Burt, K. B., Obradović, J., Riley, J. R., Boelcke-Stennes, K., & Tellegen, A. (2005). Developmental cascades: Linking academic achievement and externalizing and internalizing symptoms over 20 years. *Developmental Psychology*, 41(5), 733–746. <https://doi.org/10.1037/0012-1649.41.5.733>

[7] Pakarinen, E., Silinskas, G., Hamre, B. K., Metsäpelto, R.-L., Lerkkanen, M.-K., Poikkeus, A.-M., & Nurmi, J.-E. (2018). Cross-lagged associations between problem behaviors and teacher-student relationships in early adolescence. *The Journal of Early Adolescence*, 38(8), 1100–1141. <https://doi.org/10.1177/0272431617714328>

[8] Pedersen, M. L., Holen, S., Lydersen, S., Martinsen, K., Neumer, S.-P., Adolfsen, F., & Sund, A. M. (2019). School functioning and internalizing problems in young schoolchildren. *BMC Psychology*, 7(1). <https://doi.org/10.1186/s40359-019-0365-1>

[9] Pianta, R. C. (2001). Student-teacher relationship scale: *Professional manual*. Psychological Assessment Resources.

[10] Shi, Q., & Ettekal, I. (2021). Co-occurring trajectories of internalizing and externalizing problems from grades 1 to 12: Longitudinal Associations with teacher-child relationship quality and academic performance. *Journal of Educational Psychology*, 113(4), 808–829. <https://doi.org/10.1037/edu0000525>

[11] Wilkinson, G. S. (1993). WRAT-3: *Wide range achievement test administration manual*. Wide Range, Incorporated.

Authors Biography



Elena Gagliano is a junior-year student pursuing a B.A. degree in Psychology and a B.S. degree in Human Development and Family Science at Auburn University. She is a 2022-2023 Auburn Undergraduate Research Fellow.



Wendy Troop-Gordon is a professor in the Department of Human Development and Family Science in the College of Human Sciences. Her research in Auburn's Social Development Lab focuses on child and adolescent peer relationships and how those relationships influence socioemotional health and school adjustment.