Youth Connectedness Mitigates the Impact of Adverse Childhood Experiences (ACEs) on Adolescent Substance Use in a Rural Midwest County

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Background: Adverse Childhood Experiences (ACEs) increase the risk of adolescent substance abuse. Positive youth connections may mitigate these negative effects. We test whether and how home and school connectedness influences adolescent substance use.

Methods: Youth (N=1651 6th to 8th graders, N=565, 10th graders) from a rural, Midwestern low to middle income school district completed a baseline questionnaire prior to a health education program. The outcome, substance use, was a mean index of eight reported substance use behaviors (tobacco, electronic vapor, alcohol, any marijuana [organic or synthetic], prescription pills, inhalants, IV injection; all 6 categories: never to 40+ times). Structural equation modeling (SEM) was used to evaluate both the direct and indirect relationships between ACEs (middle school (MS), α =.700; high school (HS), α =.740), school- (MS α =.805; HS α =.833) and parent-connectedness (MS α =.923; HS α =.942) and substance use (Stata, 15.1).

Results: Higher ACEs was directly associated with lower school connectedness (MS: B=-0.29, p<.000; HS: B=-0.27, p<.000) and lower parent connectedness (MS: B=-0.16, p<.000; HS: B=-0.23, p<.000). Higher school connectedness (MS: B=-0.19; p<.000; HS: B=-0.14, p<.000), higher parent connectedness (MS: B=-0.09; p<.000; HS: B=-0.209, p<.000) and lower ACEs (MS: B=0.27; p<.000; HS: B=-.17, p<000) all directly associated with lower substance use. The impact of ACEs on substance use was mitigated indirectly through higher school connectedness (MS: B=0.01, p<.000; HS: B=0.03, p<.000) and parent connectedness (MS: B=0.03, p<.000; HS: B=-=0.01, p<.000).

Conclusion: Prevention programs should be trauma-informed and incorporate parent-youth and teacher-student components.

Planning of health education strategies, interventions, and programs Program planning