Original Article

School Disciplinary Style and Adolescent Health

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A B S T R A C T

Purpose: Parenting style is strongly associated with adolescent health. However, little is known about how school disciplinary style relates to health. We categorized adolescents' perceptions of their schools as authoritative, authoritarian, permissive, or neglectful, and test whether perceived school disciplinary style is associated with health.
Methods: We analyze data from the RISE Up study (Reducing Health Inequities Through Social and Educational Change Follow-up), comprised of baseline (eighth grade) and 2-year follow-up surveys (10th grade) from 1,159 low-income minority adolescents in Los Angeles attending 157 schools. At 10th grade, students' ratings of school support and structure were used to categorize perceived school disciplinary style as authoritative (highest tertile for support and structure), authoritarian (low support, high structure), permissive (high support, low structure), neglectful (low on both dimensions), and average (middle tertile on either dimension). Mixed effects logistic regressions controlling for sociodemographic factors, parenting style, grades, and baseline health tested whether school disciplinary style was associated with substance use, violence, bullying, and depression symptoms.
Results: Risky behaviors varied by school disciplinary style. After adjusting for covariates, compared with an average school disciplinary style, a neglectful school was associated with higher odds of substance use (adjusted odds ratio [AOR] 2.3, $p < .001$) and bullying (AOR 1.5, $p = .02$), a permissive school was associated with higher odds of depression symptoms (AOR 2.1, $p = .04$), and an authoritative school was associated with lower odds of substance use (AOR .6, $p = .049$), violence (AOR .6, $p = .03$), and bullying (AOR .5, $p = .001$).
Conclusions: Structured and supportive school environments may impact the health of vulnerable adolescents.

IMPLICATIONS AND CONTRIBUTION

This study applies a parenting framework to explicitly categorize school disciplinary style as authoritative, authoritarian, permissive, or neglectful, and to investigate its associations with adolescent health. These findings suggest schools that are both structured and supportive may positively impact adolescent health.

Parenting style is thought to have a strong influence on adolescent health [1,2]. Baumrind's landmark theory of parenting contends that the most successful style of discipline involves a healthy balance of two central dimensions: responsiveness and demandingness [3]. Responsiveness (or "support") refers to how well the adult supports the child's individual needs. Demandingness (or "structure") is the consistent enforcement of fair expectations, as well as close supervision of the child's behavior. Baumrind used these two constructs to describe and categorize parenting into four styles of discipline: authoritative (high on both dimensions), authoritarian (demanding but lacking in

responsiveness), permissive (responsive but lacking in demandingness), and neglectful (lacking in both dimensions).

Studies suggest that both dimensions of support and structure are protective, and hence the combination of both dimensions in authoritative parenting compared with other parenting styles (lacking in one or both dimensions) is generally associated with the most positive health outcomes [2,4–10]. For example, authoritarian parenting is associated with increased delinquency, relative to authoritarian, permissive, or neglectful parenting styles [11]. Additionally, compared with authoritative parenting, neglectful parenting is associated with more tobacco, alcohol, and illicit drug use [9,10], but associations with permissive or authoritarian parenting vary depending on timing and type of substance [9]. Such associations with delinquency [12] and substance use [13] hold true for low-income minority adolescents, who are already at increased risk of poor health outcomes. Further, interventions to enhance authoritative parenting and reduce neglectful parenting have shown promise as a strategy for preventing risky health behaviors among low-income Latino and African-American youth [14,15].

School climate and interactions with teachers, coaches, counselors, and school administrators are also thought to impact both the opportunity for and social norms around engaging in risky health behaviors. Further, school climate has the potential to impact adolescent mental health [16]. More recently, some school climate measures have incorporated elements of structure and support [17–19], and suggest that both constructs support positive health outcomes. In particular, previous work has demonstrated that an authoritative school climate is associated with lower odds of risky health behaviors among adolescents [20]. However, few studies explore Baumrind's remaining three discipline styles: authoritarian, permissive, and neglectful. To our knowledge, only two studies have attempted to categorize teachers [21] and schools [22] into Baumrind's four discipline styles, neither of which address risky health behaviors.

Understanding associations of health behaviors across these school disciplinary style categories can elucidate the relative importance of structure versus support. This understanding could inform the development of school policies and interventions that support adolescent health. Such understanding might be especially important for schools comprising predominantly low-income minority adolescents, who experience inequities in education and health outcomes, and also for the role that controversial zero-tolerance school disciplinary policies might play in perpetuating disadvantage [23,24]. In the current study, we apply Baumrind's parenting theory to categorize schools as authoritative, authoritarian, permissive, or neglectful, and test whether school disciplinary style is associated with substance use, violent delinquency, bullying involvement, and depression symptoms among low-income minority adolescents.

Methods

We performed a secondary analysis of the RISE Up study (Reducing Health Inequities Through Social and Educational Change Follow-up study), which is a longitudinal natural experiment designed to assess the impact of high-performing school environments on adolescent health behaviors [25]. For the RISE Up study, baseline and 2-year follow-up surveys were administered to students who participated in admissions lotteries to attend high-performing public charter schools in low-income Los Angeles communities for fall 2013 or fall 2014. Both students who

were admitted to charter schools and those who were not admitted were included in the study. As a result, participants were distributed across a variety of charter and public schools. After written informed consent and assent, research assistants conducted 90-minute face-to-face baseline interviews with students between March of eighth grade through November of ninth grade. For sensitive questions such as substance use and other risky behaviors, students responded using an audio-enhanced, computer-assisted self-interview. A follow-up survey was completed when students reached 10th grade, between January 2015 and March 2016. Response rate for the initial baseline survey was 84%. Retention rate from baseline survey to 10th grade survey was 91%, and the final sample for this analysis included 1,159 students from 157 high schools in Los Angeles, who completed both study waves.

Measures

Outcome measures. Our primary outcome measures were selected because of previous associations with school climate [17,19,26–28], and include substance use, violent delinquency, bullying involvement, and depression symptoms. Measures were asked at both baseline and follow-up survey time points. Depression symptoms were assessed with the 10-item Center for Epidemiologic Studies Depression scale, which is a depression screening tool validated for use in adolescents [29]. Participants scoring 10 or above, which is considered the clinical cutoff for a positive screen, were considered to have symptoms of depression. We also asked participants whether they used alcohol, marijuana, tobacco, and any illegal prescription pills in the last 30 days based on questions from the Youth Risk Behavior Surveillance Survey created by the Centers for Disease Control and Prevention [30,31], and created a dichotomous measure of any substance use. Additionally, we asked students whether they used alcohol or marijuana just before school or while on school property in the last 30 days, and dichotomized their responses as none versus any at-school substance use. To assess bullying, participants were asked whether they were bullied and whether they had bullied someone else in the last 12 months, based on questions from the Youth Risk Behavior Surveillance 2009 Survey [30]. We dichotomized the measure as any bullying involvement (either as a bully, a victim, or both) versus none. Finally, participants were asked whether they engaged in any fighting, involvement in gangs, and weapon carrying in the last 12 months, based on validated questions from the Youth Risk Behavior Surveillance 2009 Survey [30,31]. A report of any of these behaviors was considered a positive dichotomous measure of "violent delinquency." Outcomes were dichotomized based on the distribution of responses, to allow for easier interpretation of our models, and to facilitate comparisons with other studies. Sensitivity analyses were conducted with the original, continuous items, when available, and produced similar results.

School discipline style. Consistent with the two dimensions of Baumrind's theory on parenting style, we used measures of support and structure to construct school disciplinary style categories. We chose to measure students' perceptions rather than objective ratings of disciplinary style because, according to the Social Cognitive Theory, students' individual experiences of their social environment and interactions (i.e., school discipline style) may be more influential on their own reactions and behaviors than objective measures [32]. As such, we also performed additional analyses aggregated at the school level to test whether our