Patterns of social-emotional learning needs among high school freshmen students

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ABSTRACT

The relationships among social-emotional learning (SEL), academics, and school behaviors have been widely established. However, it is less clear how patterns of co-occurring SEL needs among high school freshmen students relate to grades, behaviors, and their perceptions about the importance of social skills. This study uses latent class analysis to identify patterns of SEL needs among ninth grade students (n = 323), their associations with prior and current academic and school behavioral performance, and their perception of the importance of social skills. Five patterns of SEL needs emerged: (1) low-all, (2) high-all, (3) social skills problems only, (4) assertion, externalizing, and internalizing problems, and (5) high behavioral needs. Consistent with other research, students with more SEL needs experienced greater academic and behavioral problems. Additionally, importance ratings of social skills had varying associations with membership across the patterns of SEL needs. Findings highlight the importance for school practitioners to understand patterns and mindsets of students' social skills to improve programming efforts targeting academic and behavioral outcomes.

1. Introduction

Transitioning into high school involves rich socio-emotional experiences resulting in social-self and identity development (Coleman & Hendry, 1999; Lerner & Steinberg, 2009). However, academic and behavioral problems tend to emerge or worsen in this period (Yeager, 2017). The profound effects of social-emotional learning (SEL) needs on students' academic achievements and behavioral outcomes (Hamedani & Darling-Hammond, 2015; Yeager, 2017) intensifies during their high school freshman year (Roderick, 2003; Roderick, Kelley-Kemple, Johnson, & Beechum, 2014). Since schools are a primary unit of socialization where adolescents spend most of their time (Sullivan, Sutherland, Farrell, & Taylor, 2015), creating school supports to address their SEL needs is critical for enhancing academic achievements and behavioral outcomes.

SEL programs have a poor track record of success among youth aged 14 to 17 years compared to younger populations (Yeager, 2017). Failure in part relates to the fact that existing programs are mostly prescriptive and lack specific developmental-stage interventions (Hamedani & Darling-Hammond, 2015; Yeager, Dahl, & Dweck, 2017). Another explanation is that they have not been tailored to students' different patterns of SEL needs, which may lead them to respond differently to programs (Supplee, Kelly, MacKinnon, & Barofsky, 2013). Patterns of SEL needs can fall into different constellations of social

skills, emotional, and learning problems. For instance, students exhibiting only poor communication skills require a different form of support from those exhibiting co-occurring difficulties – like serious mental health concerns, learning problems, *and* communication problems – who require more intense and coordinated programs. While effective SEL interventions focus on positively altering students' perspectives on the importance of their self with others (Durlak, Weissberg, & Pachan, 2010; Yeager et al., 2017), the literature does not clearly elaborate how such perceptions relate to patterns of co-occurring SEL needs within a given student population. This study addresses this void by identifying patterns of SEL needs among a class of ninth-grade students, evaluating their previous and current year academic and behavioral performances, and examining differences in students' self-perception ratings on the importance of social skills.

2. Social-emotional learning needs

Effective SEL is a process of fostering positive attitudes in students toward themselves and school and reducing difficult and risky behaviors, ultimately leading to positive academic and behavioral outcomes (Denham & Brown, 2010). A constellation of SEL needs, such as poor communication skills, engagement difficulties, and internalizing problems are independently associated with an increased risk of poor academic performance (Riglin, Petrides, Frederickson, & Rice, 2014),

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attendance problems (Black & Wiliam, 2010), and behavioral problems (Joffe & Black, 2012). There is strong evidence that addressing SEL needs has a significant effect on adolescents' future and helps them be better prepared for transitions into adulthood (Becker & Luthar, 2002). A meta-analysis study reports that reducing students' SEL problems is associated with an 11-percentile-point gain in academic achievement and a reduction in disciplinary referrals and other conduct problems by an effect size of 0.22 (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

Research on how patterns of co-occurring needs relate to academic and behavioral problems among ninth-graders has been limited. A large body of research on transactional cascading models of development suggests early risk factors correlate with poor development; risk in one domain (e.g., poor communication skills) has an accumulating, snowballing effect in other domains (e.g., engagement problems; Masten et al., 2005; Masten & Cicchetti, 2010; Moilanen, Shaw, & Maxwell, 2010; Obradović, Burt, & Masten, 2009). Unfortunately, these models are limited in that they examine one risk variable at a time, negating the possibility of co-occurring risk patterns (Supplee et al., 2013). Identifying patterns of co-occurring SEL needs will advance the research on SEL and make it possible to tailor programs to students' needs.

3. The person-oriented approach to understanding patterns of SEL needs among freshmen

Screening students' co-occurring SEL needs across multiple domains can help schools design or tailor needs-based programs that are more precise in preventing and reducing negative outcomes among students. A person-oriented perspective offers a holistic-interactional lens to understanding the processes and mechanisms that lead to individual actions and behaviors (Magnusson & Torestad, 1993). Broadly, it determines similarities and differences in developmental processes among individuals based on three principles. First, individuals are integrated beings with cognitions, emotions, and behaviors. Second, they are influenced by interactions with their environments. Third, interactions among individuals' subsystems and environments shape their development (Magnusson, 1985, 1988, 1998; Magnusson & Torestad, 1993). The person-oriented perspective attributes patterns of SEL needs to variance among individuals and posits that although a particular population may exhibit an infinite number of patterns, a small number of patterns appear frequently (Magnusson, 1988).

Identifying and addressing students' SEL needs early in their high school years, especially in their freshman year, can yield rich dividends in their academic future, such as improved graduation rates and reduced problem behaviors (Roderick et al., 2014; 2003). In a qualitative study of youth transitioning to high school, Roderick (2003) found that students received less support from teachers in high school than in middle school. Most high schools are dramatically larger than middle schools and students have greater autonomy and more exposure to risky peers. The move to a larger school can also mean less time with teachers and fewer opportunities for individual student-teacher interactions. For students with poorer social skills, the decline in support and involvement from teachers may be particularly important in understanding changes in academics and behaviors.

Studies of co-occurring SEL needs among students in the critical high school period are sparse. Most current SEL research assumes homogeneity in student populations, with little focus on variations in students' needs (e.g., Hall & DiPerna, 2017; Rabiner, Godwin, & Dodge, 2016). Studies that use a person-oriented approach have focused predominantly on middle and elementary school students. Additionally, these studies have used the Behavior Assessment System for Children (BASC; e.g., Kim et al., 2010; Orpinas, Raczynski, Peters, Colman, & Bandalos, 2015) or the Behavioral and Emotional Screening System (BESS; e.g., King, Lembke, & Reinke, 2015), which do not cover the breadth of SEL domains that other measures such as the Social Skills

Improvement System (SSIS) do. The SSIS's domains are aligned with state SEL standards (Elliott, Davies, Frey, Gresham, & Cooper, 2017). For instance, the BASC has only one domain for social skills, while the SSIS measures seven domains of SEL needs (communication, cooperation, assertion, responsibility, empathy, engagement, and self-control) and four behavioral/emotional domains (externalizing problems, bullying, hyperactivity, and internalizing problems).

4. Students' social skills mindsets

Effective SEL programs focus on students' mindsets (Yeager, 2017), including understandings of students' perspective of needs (Yeager & Dweck, 2012). Indeed, many prevention and intervention models on positive youth development highlight the importance of focusing on individuals' perceptions to modify behaviors. For instance, the social information processing and social competence frameworks, which draw on cognitive, social, and developmental psychology, offer cues on students' social adjustments and problem behaviors based on understanding their cognitions (Dodge, 1986; Greenberg et al., 2003; Tolan, Ross, Arkin, Godine, & Clark, 2016). These perspectives postulate that cognitive schemas and processes influence social behaviors (Dodge, 1986; Van Nieuwenhuijzen et al., 2017). Understanding students' perceived value of their social skills has important implications for student support personnel (e.g., school social workers, counselors, psychologists), teachers, and administrators in the tailoring of programs targeting specific competencies (Gresham & Elliott, 2008). Interventions can target social skills domains that students do not understand to be important. In light of this, understanding how students' ratings of the importance of their social skills relate to academics and behaviors will provide useful information.

Measuring SEL needs poses a challenge to researchers and school practitioners particularly in evaluating individuals' self-rated perceptions of the importance of their SEL needs (Elliott et al., 2017). Although many SEL instruments exist (Haggerty, Elgin, & Woolley, 2011), few evaluate students' perception of SEL's importance and rank their social skills needs. Examining the relationship between students' perceptions and academics and behaviors across patterns of SEL needs is thus a novel contribution to the literature. Given the importance of adolescents' perceptions of the self or their self-awareness, in the present research, we captured students' ratings of their perceptions of social skills alongside self-reports of their social skills frequencies.

5. Current study

Based on the significance of SEL for students' academic and behavioral success, and because no published research addresses high school students' patterns of co-occurring SEL risk, our *first* aim was to identify meaningful patterns of SEL needs among ninth-grade students based on the SSIS domains. Based on prior research (e.g., Kim et al., 2010; King et al., 2015; Orpinas et al., 2015), we expect to find a pattern of students with low needs, another pattern with high needs, and at least one pattern illustrating moderate SEL needs. To assist school practitioners and service providers in understanding and designing multi-tiered intervention supports, our *second* aim was to investigate how patterns of SEL needs relate to students' prior (eighth grade) and current (ninth grade) academics and behaviors. We hypothesize that students with higher SEL needs will exhibit poorer academic and higher behavioral problems than those with lower SEL needs. Finally, given the importance of students' mindsets in influencing positive youth outcomes (Yeager & Dweck, 2012), our *third* aim was to examine the relations between students' self-rating of the importance of social skills and membership across SEL needs patterns. We hypothesize that those with higher SEL needs will report lower levels of importance than those with lower SEL needs.