The Relationship Between Ninth Grade Students' Social Skills and Internalizing **Problems** by Free-and-Reduced Lunch Status

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Abstract

High school is a critical time for the development of social skills as students grapple with exploring their sense of self and future. As such, many high school students experience internalizing problems, such as anxiety, fearfulness, and depression. The current study examines how social skills and internalizing problems differ among those who receive free-or-reduced lunch (FRL) and those who do not. Based on a cohort of ninth-grade students from one high school in Central Illinois (n=323), two-way moderation analysis was applied. The interaction term (ninth grade social skills X FRL) was significant for the model predicting internalizing problems at 10th grade, after taking into account students' other demographics, problem behaviors, grades, attendance, and school disciplinary problems. The interaction plot for students on FRL indicates a marginal difference in internalizing problems among those with low and high social skills. However, for non-FRL students, those with low social skills reported more significant differences in internalizing problems than those with high social skills. Implications for social work practice relating to high school social and emotional development are discussed.

Keywords: Social Skills, Internalizing Problems, Free and Reduced Lunch, Academic, Face-Work, High School, School Transitions, Socioeconomic Status

Introduction

Students confront a plethora of changes during their first year of high school such as new teachers, changes to their bodies, and the composition and dynamics of their peer groups (Benner, 2011; Benner et al., 2017; Roderick, 2003). The experience of some internalizing problems, such as anxiety, fearfulness and depression is normative, and some students cope better than others and move on to do well in school (Najman et al., 2010). Some students may require school-based supports as they adjust to their new school environment. This is critical in the first year of high school, as evidence suggests that such supports may determine key

outcomes such as graduation rates. Students may continue to experience effects of these changes into proceeding years of high school (De Wit et al., 2011; Najman et al., 2010). However, the freshman year is identified as "make-or-break" in evaluations with low-income students (Phillips, 2019).

The transition into high school can elicit feelings such as anxiety and nervousness (Benner, 2011; Benner et al., 2017), and for the 41% of students nationally who reside in lowincome households, the risk of experiencing internalizing problems may be acute (Koball & Jiang, 2018). A large body of literature highlights the disadvantages students in poverty experience (Najman et al., 2010; Wadsworth et al., 2013). For example, limited access to resources create heightened risk of mental health problems (Yoshikawa et al., 2012). Social skills such as communication, empathy, and engagement may be the key to managing such risks, given ample evidence of their role in students' ability to navigate transitions and to comprehend the social norms of their new school environment (Benner et al., 2017; Neel & Fuligni, 2013; Neild, Stoner-Eby, & Furstenberg, 2008; Tan, Oe, & Hoang Le, 2018; Tan, Sinha, Oe, Wang, 2018).

This paper addresses a gap in the literature by investigating whether a students' level of social skills interacts with socioeconomic status in determining students' experience of internalizing problems among a cohort from a single high school in Central Illinois. It uses qualification for free or reduced priced lunch (FRL) as a measure of socioeconomic status and examines the relationship between ninth grade social skills and 10th grade internalizing problems. Findings can be utilized to develop more effective interventions for use by high school teachers, administrators, school counselors and school social workers.

Literature Review

Face-Work Theory

Goffman's face-work theory (Goffman, 1967) can be used to understand the experience of students on FRL as they transition into high school. Face-work is based on the premise that a person's experience of their social environments is both relational and interactional. Individuals engage with their environment differently depending on their relationships with the participants, and with the knowledge that those interactions may impact their standing with those people. The nature and quality of interaction are critical to the development of their sense of self (Arundale, 2006). Researchers have widely applied Goffman's theory in the study of human interactions, linguistics, and relationships (Arundale, 2006). Indeed, face-work is useful to understand students' experience entering high school. As students navigate the complex web of social dynamics present in schools, Goffman's theory draws attention to the multiple roles that students may explore. Goffman identifies *lines*, the episodic roles that people act out in situations, and face, the summative capital built through those interactions, as the operative terms for his theory. These terms capture well the dynamic among high school students (Goffman, 1967).

As face-work theory suggests, students today must be equipped with strong social skills to juggle the multiple identities or "lines" they may experience in ninth grade. Students may also experience an array of challenges during their transition into high school: environments change in nearly every aspect, from the building, classroom(s), teachers, administrators, and expectations (Benner, 2011). High schools are often larger in many ways than middle schools, with hundreds or thousands of students traversing the halls. Classroom sizes may also grow, sometimes dramatically. The grammar of the classroom – desks, classroom organization, aesthetic, differs from their past experience, a reflection of the increased expectations and

independence (Benner et al., 2017). Unlike in their elementary years, students must hold a schedule in their mind, and have agency in finding, attending, and following through on their classes (Benner, 2011). As students navigate the simultaneous changes in their environment and peer, teacher, and parental expectations (Benner, 2011), they must manage their sense of self and their face-work.

Challenges Students on FRL Experience

The literature has widely documented the effects of growing up in poverty and the important role of social skills in promoting positive life outcomes for students in low-income families (Benner, 2011; Benner et al., 2017; Najman et al., 2010). However, existing literature applying face-work as a framework to discuss the experience of American students is sparse. Students from families that qualify for FRL can experience multiple stressors, one such example including the parents' decision to marry, which has implications for parental and family supports which may impact their later decisions regarding schooling and the workforce (Watson & McLanahan, 2009). Some students on FRL may not have access to role models who can coach them on the social skills they need to traverse the challenges of entering a new school environment (Lee et al., 2011; Sanner & Neece, 2018). When navigating the social systems of life generally and schools in particular, students who are well supported in these transitions tend to experience an advantage. Such support often comes from adults (e.g., parents and teachers), overall school belonging, and peer support (Benner et al., 2017). Additionally, these students may not receive the positive social support from their peers or teachers that wealthier students access to navigate the challenges of high school (De Wit et al., 2011).

In the absence of positive role models and social support, internalizing problems, such as anxiety and self-doubt, can emerge (De Wit et al., 2011). As students become more aware of their identities and relationships, the quality of their social skills plays a prominent role in their ability to manage their self-image and social interactions (Benner et al., 2017). Existing literature identifies a connection between social skills needs and the experience of internalizing problems (Tan, Sinha, Oe, Wang, 2018). Managing face-work during their high school years is especially important as students begin to engage more actively in consumer behaviors, such as going to the movies with peers, purchasing clothes for themselves to reflect their identities, and engaging in activities relating to dating. Participation in these activities requires both financial means and social skills, and students begin to engage in more complex face-work. Students on FRL may feel set apart by their economic disadvantage.

Influence of Problem Behaviors, Academics, and other Demographic Characteristics

In understanding the relation among social skills, internalizing problems, and FRL status, it is critical that we consider the influence of problem behaviors such as aggression, school disciplinary problems, and academic performance (Benner, 2011). Other demographic characteristics such as race/ethnicity, gender, and Individualized Education Plan (IEP) status are also important to consider as these can influence students experience in school (Benner, 2011; Benner et al., 2017; Najman et al., 2010). While a thorough review of the influence of students' problem behaviors, academics, and demographics on their social skills, internalizing problems and FRL status is beyond the scope of this paper, we considered the influence of these areas in our analyses.

Current Study

Overall, the transition into high school is challenging for many students and internalizing problems can emerge; it may be more difficult for those with poor social skills and on FRL status. The extant literature has not explicitly evaluated the intersection of students' FRL status,

social skills, and internalizing outcomes, but it does suggest that examining this intersection can help us to better understand the needs of students. This study undertakes such an examination in a cohort of ninth grade students in one high school in semi-urban Central Illinois. We address the following research question: Do the relations between social skills at ninth grade and internalizing problems at 10th grade differ based on FRL status? If so, how do the relations differ? In this study, based upon Benner's (2011) review of high school transition research, we hypothesize FRL students with lower social skills will have more internalizing problems as compared to those with higher social skills. Likewise, we believe for non-FRL students, the same relationship between social skills and internalizing problems will exist.

Methods

Participants and Procedure

This study is based on a larger longitudinal project on social-emotional learning among a cohort of students in a single high school in Central Illinois. Trained research assistants (RAs) collected the data in classrooms and/or the school auditorium during students' study hall periods. RAs collected student data in pairs, with one RA administering the written survey and a second helping to address questions from students when they arise. Parents/guardians were informed about the study through an email the school sent them a week prior to data collection allowing them to opt their children out of participation by a return email. Verbal and written assent from the student were required prior to data collection. The University of Illinois Institutional Research Board and the school's district office approved the study protocol.

Overall, the full cohort size was 375 ninth-grade students, 323 of whom completed surveys for this study. The remaining 52 students were either absent or declined participation during the period of data collection or had been opted out by their parents/guardians. In the analytical sample, 55% of students receive FRL, and 12% had an IEP. The racial breakdown was as follows: 38% Black, 48% White, 12% Asian, and 2% other. The gender breakdown was 52% male, 48% female. Data was collected in the Spring of the ninth-grade year and the 10th grade year. At 10th grade, 181 students responded to the surveys in both waves.

Measures

Social Skills. Social skills were measured based on 46 questions from the Social Skills Improvement System (SSIS, ages 13-18; Gresham & Elliott, 2008). These questions assessed seven aspects of social skills: communication (e.g. "I take turns when I talk with others"), cooperation (e.g. "I do what the teacher asks me to do"), assertion (e.g. "I ask for help when I need it"), responsibility (e.g. "I tell people when I have made a mistake"), empathy (e.g., "I try to make others feel better"), engagement (e.g. "I make friends easily"), and self-control (e.g. "I stay calm when I am teased"). The response choices for all questions were based on a scale from 0 ="not true" to 3 = "very true." The responses to the questions were averaged to create a social skills variable. Cronbach's alpha was 0.94.

Internalizing Problems. Internalizing problems were based on 10 items from the SSIS. Examples of questions asked were "I am afraid of a lot of things," "I get embarrassed easily," and "I think bad things will happen to me." Students responded to these questions on a scale of not true (0) to very true (3). Questions were averaged to create an internalizing problems variable. Cronbach's alpha was 0.86.

Problem Behaviors. The SSIS also assessed for three other problem domains involving externalizing problems (12 questions e.g., "I swear or use bad words"; Cronbach's alpha: 0.82), bullying (5 questions e.g., "I try to make others afraid of me"; Cronbach's alpha: 0.55), and

hyperactivity/inattention (7 questions e.g., "I often do things without thinking"; Cronbach's alpha: 0.82). Students responded on a scale of 0 (not true) to 3 (very true). The mean for each domain was used in the analyses.

Demographics, Academics, Attendance, and Disciplinary Records. FRL status (1 = yes, 0 = no), race/ethnicity (binary coded Black, White, Asian, Others), gender (1 = female, 0 = no) male), and IEP status (1 = yes, 0 = no) were based on school administrative records. These records also provided data for academics (8th grade: number of Fs, and 9th grade: grade point averages), attendance (end-of-year percentage), and number of disciplinary referrals.

Data Analysis

Analysis was first conducted on all variables to compare differences between students on FRL and those who were not. Chi-square tests were used for categorical variables and independent sample t-tests for continuous variables. To understand if the relations between social skills and internalizing problems differ between students according to FRL, two-way moderation analysis was conducted (social skills X FRL). When conducting the moderation analysis, the social skills variable was grand-mean centered. In the model, demographics, students' eighth and ninth grade academics, attendance, number of disciplinary referrals, and other problem domains (externalizing, bullying, hyperactivity/inattention) were systematically entered as control variables. Demographics were entered first, followed by academics, attendance, and number of disciplinary referrals, and lastly, problem behaviors. Models with main effects first (not reported) were looked at, followed by models with the interaction terms. To interpret the significant interaction term, the interaction term was plotted (mean + 1 standard deviation; mean - 1standard deviation). All analyses were conducted using SPSS Version 24.

Results

Demographics, Academics and Behavioral Differences Between FRL and Non-FRL **Students**

Table 1 reports the statistical tests of differences between FRL and non-FRL students. Slightly over half of the students on FRL are female (52.4%) and African American (58.8%). Approximately 13% of students on FRL have an IEP. In terms of ninth grade academics and school behaviors, students on FRL, compared to non-FRL students, received more Fs (mean 0.75 vs. 0.28) and attended fewer days of school (mean 10.90 vs. 8.05). In ninth grade, students on FRL had a lower GPA than their non-FRL counterparts (mean 2.55 vs. 3.02). Differences were also observed in ninth grade in externalizing behaviors (mean 0.71 vs. 0.59) and their social skills (mean 1.81 vs. 2.02).

Differences Between Social Skills, Internalizing Problems, and FRL Status

The interaction term for the model involving FRL X social skills predicting 10th grade internalizing problems with controls for students' demographics, academics, and school behaviors and problem behaviors was statistically significant (p = 0.047; see Supplementary Table 1). As seen in Figure 1, there was marginal difference in internalizing problems among students with FRL between those with low and high social skills. However, for non-FRL students, students with low social skills reported higher levels in internalizing problems than students with high social skills. Comparing between FRL and non-FRL students with low social skills, non-FRL students reported higher levels of internalizing problems compared to the FRL students.

Discussion

The present study examines what differences, if any, existed in the relationship between social skills and internalizing problems in consideration of FRL status, a question existing

literature has not addressed (to our knowledge). The study examined a cohort of ninth-grade students because of the growing importance of social skills in this time of transition into high school. Simultaneously with this transition, students experience decreasing teacher support (De Wit et al., 2011), increasing the importance of SS. Face-work (Goffman, 1967) is utilized as a theoretical framework with which to explore the results.

Face-work presents a unique lens from which to view these results, more firmly rooting interpretation in the everyday interactions students experience as they enter into high school. Findings suggest the social environment experienced and the stressors associated with the transition into high school may result in slightly increased internalizing problems when they enter 10th grade. Students who receive FRL and have high social skills experience slightly more internalizing problems. This finding may suggest students' awareness of their financial backgrounds and that socioeconomic status affects and restricts students' ability to navigate interactions common throughout the transition. These findings are consistent with the existing literature (e.g., Benner et al., 2017), which emphasizes the importance of social skills throughout the high school transition.

Interaction between Social Skills and Internalizing Problems

The interaction between social skills and internalizing problems appears to serve a more protective function for students from economically better-off families, with highly skilled students experiencing lower levels of internalizing problems as compared to non-FRL students. Findings may be explained by the possibility that these socially skilled FRL students may be more acutely aware of economic difference (McLoyd, 2019) and the stress of actively navigating this dynamic could contribute to the elevated internalizing problems that they experience. The high school years may raise awareness of students' economic abilities to participate in

extracurricular activities as they are forced to navigate their face-work and lines alongside their financial standing and consideration.

On the contrary, in this study, social skills do not appear to differentiate levels of internalizing problems among students on FRL. It may be because these students have adapted to their economic disadvantage and found ways to manage their sense of selves and their face-work as they navigate the multiple changes and social expectations in their high school years (Benner, 2011). This dynamic may explain the almost similar levels of internalizing problems among those with high and low social skills. Nonetheless, given the importance of the freshmen year and social skills in determining student long-term success (Benner et al., 2017; Phillips, 2019), it is critical to continue providing support for all students regardless of FRL status and their levels of social skills. Social skills are needed for students to navigate the ongoing and ever changing complex web of relationships and social norms as they progress towards young adulthood (Benner et al., 2017; Author 2, 2018; Author 2, 2018).

This study's analyses revealed the students' internalizing problems most impacted by the interaction of social skills and FRL status are non-FRL students with low social skills. This finding can be explained by Goffman's (1967) proposition that face-work is both relational and interactional in understanding their sense of selves (Arundale, 2006). It may be the case that non-FRL students with low social skills may experience a higher expectation to maintain their identities and social statues among peers (Watson & McLanahan, 2009) which results in heighted anxieties and internalizing problems. If so, it is essential that these students are supported and equipped with the necessary social skills to manage their face-work as they navigate through their high school years.

Practice Implications

Findings suggest schools must be aware of and equipped to handle students' mental health needs such as the internalizing problems. Interventions that include social-emotional learning concepts and facilitate peer and adult supports can do much to ameliorate the internalizing problems common in the high school transition (De Wit et al., 2011; Riglin et al., 2014). Schools should take an active role in monitoring for economic stressors that may impact students' performance and social development within the school (Matthews et al., 2017). Additionally, schools should consider efforts to more intentionally promote teacher and parent support throughout the transition into high school (Benner et al., 2017). This support may provide students with the opportunity to observe and develop their own skills. This may be especially beneficial to students who lack access to role models to model and coach social skills. For those students who have high social skills but receive FRL, the opportunity for additional support may provide an outlet for stress experienced in navigating those interactions.

Limitations & Areas for Future Research

The results of this study document an interaction between social skills and internalizing problems when viewed through FRL status. However, several limitations exist which open up compelling opportunities for future study. First, the results were obtained from one high school in Central Illinois, restricting generalizability. While the interaction effect may be considered marginal (p = 0.047), this is the first study to examine the interlinkages among social skills, internalizing problems and FRL status. Future studies may validate this finding with a larger sample. Additionally, future studies examining this interaction should examine this relationship in schools with different socioeconomic and geographic makeups, to investigate if the effect holds in areas with different composition of FRL to non-FRL students. Second, data was

gathered through a self-report tool, which allows for the report of socially desirable responses. Third, this study reflects a one-year window of social skills at ninth grade and internalizing problems at 10th grade. This small timeframe does not allow for strong causality inferences. Future studies should consider examining this interaction over a longer period. This study does not assess parental or teacher support, but further evaluation of this support system along with modeling of social skills is an area for future research.

Conclusion

This study is unique in both its utilization of Goffman's (1967) face-work in this context, and in its examination of the intersections among social skills, internalizing problems and FRL statues. Results underscore the importance of social skills throughout the high school transition, but it also revealed that for a select population of high-skills students who receive FRL, these same social skills may work to foster internalizing problems when students do not have access to outside supports. These results encourage schools to be mindful of economic and social factors at play throughout the high school transition. Lastly, educators should consider interventions to increase availability of supports to students with lower social skills regardless of FRL status, and FRL-receiving students with high social skills.

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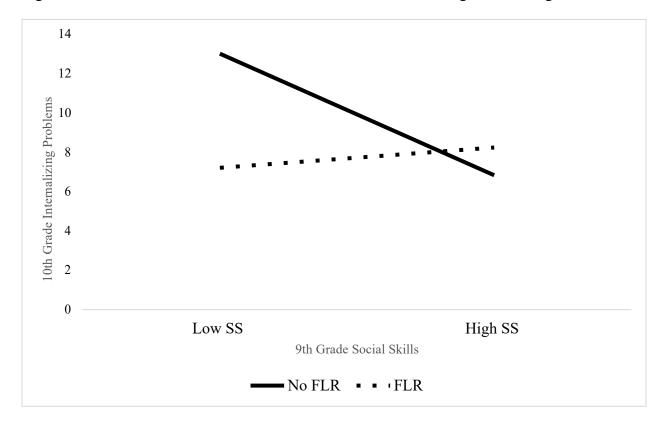
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Table 1: Overall Mean Differences Between FRL and Non-FRL Students

	FRL	Non FRL	Significant Tests
Demographics			
Female	52.4%	47.6%	0.040
White	28.8%	71.2%	0.001
Black	58.8%	41.2%	0.001
English Language Learners	90.6%	9.4%	NS
IEP	12.9%	87.1%	0.045
Academics & School Behaviors			
8 th Grade: No. of Fs.	0.75	0.28	0.005
8th Grade: No. of Absences	10.90	8.05	0.027
8 th Grade: No. of Office Referrals	0.71	0.38	NS
9 th Grade: GPA	2.55	3.02	0.001
9 th Grade: Attendance	93%	94%	NS
9 th Grade: No. of Office Referrals	1.07	0.97	NS
Problem Behaviors			
9 th Grade: Externalizing	0.71	0.59	0.017
9 th Grade: Bullying	0.40	0.33	NS
9 th Grade: Hyperactivity/Inattention	1.02	0.94	NS
10 th Grade: Externalizing	0.71	0.63	NS
10 th Grade: Bullying	0.50	0.42	NS
10 th Grade: Hyperactivity/Inattention	1.05	0.99	NS
Social Skills and Internalizing Problems			
9 th Grade: Social Skills	1.81	2.02	0.001
10 th Grade: Social Skills	1.97	2.02	NS
9 th Grade: Internalizing Problems	0.81	0.79	NS
10 th Grade: Internalizing Problems	0.82	0.94	NS

NS: Not significant

Figure 1: Interaction Plot For Social Skills and FRL Status Predicting Internalizing Problems



Supplementary Table 1: Regression Models Predicting 10th Grade Internalizing Problems

	Model 1: Demographics			Model 2: Demographics + Academics and School Behaviors			Model 3: Demographics + Academics and School Behaviors + Problem Behaviors		
	β	SE	Sig	β	SE	Sig	β	SE	Sig
FRL X SS	0.008	0.005	0.132	0.009	0.006	0.168	0.011	0.005	0.047
SS (Centered)	-0.008	0.004	0.022	-0.008	0.004	0.050	-0.005	0.004	0.146
FRL	-0.115	0.108	0.291	-0.138	0.121	0.255	-0.115	0.102	0.264
Female	0.221	0.101	0.029	0.278	0.115	0.017	0.428	0.101	0.001
Black	-0.157	0.132	0.237	-0.299	0.149	0.047	-0.307	0.127	0.017
Asian	0.169	0.154	0.276	0.236	0.179	0.190	0.014	0.156	0.928
Others	-0.290	0.390	0.458	-0.580	0.567	0.308	-0.407	0.474	0.393
ELL	-0.116	0.209	0.579	-0.184	0.238	0.440	0.020	0.204	0.922
IEP	-0.085	0.248	0.733	0.129	0.274	0.640	0.021	0.229	0.928
8 th No. Fs				0.061	0.064	0.339	0.002	0.054	0.969
8th No. of Abs				-0.013	0.010	0.199	-0.008	0.009	0.377
Days									
8 th No. of Disc				0.058	0.052	0.265	0.063	0.045	0.157
Refs									
9 th GPA				-0.030	0.077	0.695	-0.005	0.066	0.941
9 th Attendance				-0.791	0.975	0.419	-0.525	0.854	0.540
9 th No. of Disc				-0.012	0.015	0.449	-0.012	0.013	0.362
Refs									
9 th Externalizing							0.415	0.280	0.142
9 th Bullying							-0.105	0.211	0.621
9 th Hyperactivity							-0.195	0.158	0.220
10 th Externalizing							0.001	0.282	0.999
10 Th Bullying							0.076	0.197	0.698
10 th Hyperactivity							0.563	0.122	0.001