Social Capital & Enrollment in College as First-Generation Students

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Young adults face major decisions as they complete high school, including whether to attend college. The steps needed to enroll in college can be extra challenging for firstgeneration students who may have limited support and resources at home or while in high school. This study explores structural, relational, and cognitive social capital indicators that enrolled college students used to support themselves in their decision to attend college. Comparisons are made between first-generation and continuing-generation students' social capital. Ideas for areas where resources could be added or expanded to increase social capital for first-generation students are discussed.

Keywords: first-generation students, social capital, college admissions

Between the ages of 16-24, young adults face major transitions that often include completing high school, developing goals of further education, future employment, professional degrees, and perhaps starting a family (Smylie, 2015). These decisions are influenced by relationships an individual has with family members, friends, school staff, and community groups. These relationships and social structures are part of the concept of social capital (Claridge, 2004). Social capital could be structural resources and support from within institutions such as high school or sports groups. Social capital could also be relational support from important interpersonal relationships with family, friends, high school teachers, coaches, and mentors, which then builds cognitive capital in the form of confidence to take on challenges and work toward achieving goals. This

structural, relational, and cognitive social capital can vary depending on the community where an individual lives, with resources like advanced learning opportunities and scholarships often being more prevalent in urban areas as opposed to rural regions (Claridge, 2004; Holland, 2010; Kingsolver, 2017; Li, 2019).

First-Generation Defined

Though choosing to attend college may increase employment opportunities and income in the future, present circumstances for transition-age youth with limited social capital can present many barriers (Soo-Yong et al., 2012). First-generation student status is typically defined as an undergraduate whose parents/guardians did not earn a bachelor's or higher degree (RTI International, 2019). First-generation college students often lack the guidance or support of their families because of limited knowledge of the college application process (Gibbons et al., 2019). Despite these barriers, first-generation students make up over half (56%) of undergraduates in the United States (RTI International, 2019). Gaining a deeper understanding of the social capital resources first-generation students lean on in order to access higher education may be an important tool for high school counselors and college recruiting personnel. We can target resources to bolster the identified supports in order to increase the odds of first-generation students enrolling, attending, and completing college (Herrmann et al., 2021; O'Shea, 2016; Taylor et al., 2012). Additionally, we can look for areas of academic support that might need to be added or expanded across communities in order to help first-generation students take the necessary steps to enroll in higher education.

Social Capital Framework

The term "social capital" is a multi-faceted concept that has been defined and measured in a variety of ways. Most commonly, social capital describes the benefits of social connections and resources that a person can access to help them achieve personal goals such as education, employment, and overall well-being (Claridge, 2014; Ryan & Romero, 2019; Scales, 2020; Stanton-Salazer, 2011). The term has evolved over time. Looking back, Hanifan (1916) related the concept of social capital to the measurement of social resources an individual gains through positive interpersonal relationships or connections with other people. Bourdieu (1983; 1986; 2001) broadened social capital by relating it to resource access people gain through engagement in structural and social networks, including business, community, and social groups. These formal and informal resources within a social system serve as avenues for empowering individuals to achieve goals like attending college (Bourdieu, 1986; Robbins et al., 2019; Ryan & Romero, 2019; Scales et al., 2020).

For this study, we use Nahapiet and Ghoshal's (1998) widely accepted framework for social capital that includes three aspects: *structural, relational, and cognitive capital*. Structural capital is made up of networks and connections a person has with organizations and community groups. Structural capital is built through tangible interactions within these networks that provide access to resources. For example, a student might have access in high school to advanced placement/college preparatory courses or have the opportunity for advisement from a counselor.

Relational capital refers to interpersonal relationships that support a student as they seek to achieve goals. These relational elements are envisioned as the trust, respect, and shared obligation built through interactions with family, friends, and mentors. Cognitive capital is similar to relational capital and refers to the shared vision and purpose a person has with family and their community (Claridge, 2018). Cognitive capital might include a person's confidence in themselves and shared beliefs within their family and friend group around the importance of education.

In order for young people to gain access to higher education, Stanton-Salazer (2011) points to the importance of structural capital found within the network of resources in high schools and community groups. Relational capital is built through family, friends, and adult mentor relationships. For example, a student could have limited cognitive capital because their community or family discourages attending college, prioritizing employment over higher education. This impacts the student's confidence in their ability to succeed in college. A student in a small school with limited resources might also be discouraged by the lack of structural support for accessing higher education. Research has shown how supportive adult relationships can bolster positive academic and social outcomes for youth (Robbins et al., 2019) and that relational capital may lead to wider access to structural capital for the young person, which may include higher education opportunities (Li, 2019; O'Shea, 2016; Scales et al., 2020).

Cognitive capital is necessary for individuals to have self-confidence in their abilities and thus be willing to work towards goals like attending college. First-generation students may have parents who emotionally support their desire for higher education but do not understand the many layers involved in navigating admission to higher education (Gibbins et al., 2019; Li, 2019; Tate et al., 2015). This can serve as an access barrier for students who may also have limited support at their high school. Though the support of parents has been linked to positive well-being for youth (Soo-Yong et al., 2012), other kinds of relationships from school or community programs may offer similar support, which contributes to a student's confidence in their ability to succeed in higher education. Even though parents may lack knowledge of or experience with college processes, their support and encouragement are often strengths that may help first-generation students feel confident enough to attend college (Capannola & Johnson, 2020). Sharing a vision or goal of completing a degree could build cognitive capital and further confidence in academic success.

An exploratory study was proposed to help us develop a deeper understanding of specific types of social capital used by students who made the transition from high school to enrollment in college. Researchers surveyed a sample of first-generation students who were enrolled in college and compared their levels of social capital with those of continuing-generation students.

Method

This exploratory study examined structural, relational, and cognitive social capital resources that students used to help them enroll in college. Data were collected from an anonymous sample of undergraduate social work majors at a public university. The university had a total enrollment of just under 15,000 in the study year, with 10,570 as full-time students and 4,410 as part-time students, with a population that was 59.1% female. As the university recruits students mostly from rural Appalachia, the population in 2019-2020 was 83% white non-Hispanic (https://www.univstats.com). For this study, undergraduate social work instructors were asked to provide students in their classes the opportunity to complete an anonymous survey approved by the university's Institutional Review Board. Instructors were asked to take 5 minutes at the end of a class period to read a short script about the purpose of the research survey and to ask for volunteers. The script stated there was no incentive for students to complete the survey other than to share their perspectives on their academic path. There was also no penalty for non-completion, as the instructor and researcher would never know who completed a survey. The instructor distributed a paper survey to every student and left the room. The students were told to place their surveys in an envelope on a chair by the door when they were done and then to exit the classroom. This gave students who did not want to participate the ability to put the blank survey in the envelope without their instructor knowing who did or did not complete a survey. No names or identifiers were included, so the surveys were completely anonymous.

The paper survey included 34 multiple-choice questions, including demographics, first-generation status, support for academic goals from family, high school, and community, confidence in their academic abilities, and their future plans. No specific

scale or instrument was found to measure social capital in this way. Therefore, the authors developed their own set of questions to explore structural, relational, and cognitive capital. Instructors collected the envelopes after class and passed them directly to the researcher, who kept the paper surveys in a locked file cabinet. Data was entered into IBM SPSS for analysis, and the electronic files were password-protected and accessible only to the researcher.

Data were partitioned into two groups: (1) first-generation students for whom neither parent/guardian had obtained a bachelor's or higher degree and (2) continuing-generation students who had at least one parent/guardian who had obtained a bachelor's or higher degree. Data analyses included frequencies and Pearson's chi-square test comparisons between first-generation and continuing-generation student groups.

Results

PARTICIPANT CHARACTERISTICS

A total of 110 out of 156 students completed the survey (70.5% response rate). Descriptive variables were included to gain a sense of who responded to the survey. The main variable of interest was whether a student was first-generation. In this sample, 35.5% of respondents were first-generation (n=39), and 64.5% were continuing-generation students (n=71). These were our comparison groups in analyses. For clarity, the first-generation group is listed first in all descriptions of results, followed by the continuing-generation group.

Other descriptive variables included gender identity, race, ethnicity, age group, location of high school, current year in college, and foster care experience. Foster care was included as it may indicate more limited relational resources. In both groups, the majority identified as female. More first-generation students identified as Black or Hispanic/Latino. The majority of both groups were between ages 18-24 and represented typical college-age individuals. The home county where students attended high school was coded as rural, partially rural/suburban, or urban (Health Resources and Services Administration, 2021), and similar numbers of students were from each area. More first-generation students had experience with the foster care system. Participants in both groups were distributed almost evenly in each of the typical 4-years of college.

Table 1

PARTICIPANT CHARACTERISTICS - FREQUENCIES AND PEARSON CHI-SQUARE RESULTS

| Variables | First-generation (n=39) | | Continuing- generation (n=71) | |
|--------------------------------------|-------------------------|----------|----------------------------------|------|
| | n | % | n | % |
| Gender Identity | | | | |
| Female | 37 | 94.9 | 63 | 88.7 |
| Male | 2 | 5.1 | 8 | 11.3 |
| Race/Ethnicity | | | | |
| White | 31 | 79.5 | 65 | 91.5 |
| Black/African American* | 6 | 15.4 | 2 | 2.8 |
| Hispanic or Latino* | 4 | 10.3 | 1 | 1.4 |
| Age Group | | | | |
| 18-24 years old | 33 | 84.6 | 63 | 88.7 |
| Location of High School | | | | |
| Rural | 17 | 48.6 | 20 | 43.8 |
| Partially Rural/Suburban | 9 | 25.7 | 7 | 14.6 |
| Urban | 9 | 25.7 | 30 | 41.7 |
| Ever in Foster Care* | 5 | 12.8 | 2 | 2.8 |
| College level | | | | |
| Freshman | 6 | 15.4 | 19 | 26.8 |
| Sophomore | 11 | 28.2 | 10 | 14.1 |
| Junior | 11 | 28.2 | 16 | 22.5 |
| Senior | 11 | 28.2 | 26 | 36.6 |
| Worked paid job while taking classes | 24 | 61.5 | 40 | 57.1 |
| Average hours worked per week** | | 28.3 hrs | | 20.8 |
| | | | | hrs |

p* < .05, *p* < .10

While over half of both groups of students (61.5 vs. 56.3%) reported working a paid job while taking classes, first-generation students reported a significantly higher average number of hours worked per week (M = 28.3, SD = 10.94) compared to continuing-generation students (M = 20.8, SD = 8.11; p = .003).

STRUCTURAL CAPITAL RESOURCES

Structural capital resource indicators were measured through two sets of questions: (1) questions about resources *offered* at the participant's high school and (2) questions about *participation* in the resources that were offered. There were no significant differences in the number of students in each group that reported being offered advanced placement or college preparatory classes, college information sessions, guidance counseling, financial aid application assistance, and extracurricular activities. Among students who reported that their high school offered a specific resource, data were examined for the number of students who accessed that resource. Apart from participation in extracurricular activities, there were no significant differences in the number of students participating in the resources offered. Significantly fewer first-generation than continuing-generation students (71.1 vs. 93.9%; $X^2(2, 108) = 7.32$, p = .007) reported participation in extracurricular activities.

Table 2

STRUCTURAL CAPITAL INDICATORS

| Structural Capital Measures | First-generation | | Continuing- generation | |
|-----------------------------------------|------------------|-------|---------------------------|-------|
| | n | % | n | % |
| Offered Resource | - | | | |
| Advanced placement/college prep classes | 36 | 92.3 | 63 | 91.3 |
| College info sessions | 27 | 69.2 | 48 | 69.6 |
| Guidance counseling | 32 | 82.1 | 54 | 78.3 |
| Financial aid application help | 21 | 53.8 | 44 | 63.8 |
| Extracurricular activities | 38 | 97.4 | 66 | 95.7 |
| Accessed Resource | | | | |
| Advanced placement/college prep classes | 36 | 77.8 | 63 | 76.2 |
| College information sessions | 27 | 75.0 | 48 | 77.8 |
| Guidance counseling | 23 | 100.0 | 34 | 100.0 |
| Financial aid application help | 21 | 52.4 | 44 | 50.0 |
| Extracurricular activities** **p = .007 | 38 | 71.1 | 66 | 93.9 |

RELATIONAL CAPITAL RESOURCES

Relational capital resource indicators are related to the support provided to students as they decide to attend college, apply to college, and select the college once accepted to an institution. Students were asked to rate the relational support received from families and teachers regarding college attendance. Significantly fewer first-generation students rated parents as being "very supportive" of college attendance $(74.4 \text{ v}. 90.1\%; X^2(2, 110) = 8.23, p = .016)$. There was no difference in high school teachers being supportive of college attendance.

First-generation students were less likely to report their decision to attend college was most influenced by their parents. Instead, more first-generation students reported their decision to attend college was one they made on their own (20.5 v. 7.1%; $X^2(1,109) = 4.25$, p = .039).

First-generation students reported less parental assistance with completing college applications than continuing-generation students (25.6 v. 71.4%; X^2 (1, 109) = 21.2, p = <.001). Similarly, more first-generation students reported no one assisted them with completing their college applications (53.8 v. 15.7%; X^2 (1, 109) = 17.6, p = <.001).

After college application acceptance letters were received by students, fewer firstgeneration students had parental assistance to help them choose the best option (25.6 v. 50.0%; $X^2(1,109) = 6.13$, p = .013). First-generation students were significantly more likely than continuing-generation students to report navigating the college selection process by themselves (61.5 v. 40.0%; $X^2(1, 109) = 4.66$, p = .031).

Table 3

RELATIONAL CAPITAL INDICATORS

| Relational Capital Measures | First- generation | | Continuing- generation | |
|-------------------------------------------------------|----------------------|------|---------------------------|------|
| | | | | |
| | n | % | n | % |
| Very supportive of attending college: | | | | |
| Parents* | 29 | 74.4 | 64 | 90.1 |
| Teachers | 24 | 61.5 | 53 | 76.8 |
| Most influential in decision to attend college: | | | | |
| Navigated Alone* | 8 | 20.5 | 5 | 7.1 |
| Parents | 22 | 56.4 | 52 | 74.3 |
| School staff (Teachers, guidance counselors, coaches) | 16 | 38.4 | 26 | 36.6 |
| Friends** | 7 | 17.9 | 12 | 17.1 |
| Other Family Members | 11 | 28.2 | 17 | 24.3 |
| Assisted with applying to colleges: | | | | |
| Navigated Alone*** | 21 | 53.8 | 11 | 15.7 |
| Parents*** | 10 | 25.6 | 50 | 71.4 |
| School staff (Teachers, guidance counselors, coaches) | 19 | 48.7 | 38 | 53.5 |
| Friends | 4 | 10.3 | 16 | 22.9 |
| Other Family Members | 6 | 15.4 | 15 | 21.4 |
| Helped choose a college once accepted: | | | | |
| Navigated Alone* | 24 | 61.5 | 28 | 40.0 |
| Parents* | 10 | 25.6 | 35 | 50.0 |
| School Staff (Teachers, guidance counselors, coaches) | 8 | 20.5 | 12 | 16.9 |
| Friends | 6 | 15.4 | 12 | 17.1 |
| Other Family Members | 7 | 17.9 | 9 | 12.9 |

*p < .05; **p < .01; ***p = < .001

COGNITIVE CAPITAL RESOURCES

Indicators for cognitive capital were measured through questions about the student's personal confidence in academic success and their familial beliefs about education. There was no significant difference in reported confidence between the two groups that they would graduate and complete their degree. However, over two-thirds of first-generation students (69.2%) felt a college degree was necessary to obtain gainful employment compared to 45.7% of continuing-generation students (X^2 (2, 109) = 6.74, p = .034). Fewer first-generation students reported their parent(s) indicated to the student that they were expected to graduate from high school (84.6 v. 95.8%; X^2 (2, 110) 6.36, p = .042).

When asked about the personal importance of being an educated person, the majority of both first-generation (97.4%) and continuing-generation (88.7%) students indicated it was very important. Respondents also reported that their family and friends believed it was important for the student to be an educated person (56.4 v. 71.8%). When asked what the main reason their family wanted the student to go to college, most chose "to get a credential that will lead to a job" (71.8 v. 78.9%).

Table 4Cognitive Capital Indicators

| Cognitive Capital Statements | First-generation | | Continuing-generation | |
|----------------------------------------------------------------------|------------------|------|-----------------------|------|
| | | | | |
| 1. Confident I will graduate from college | n | % | n | % |
| 2. Believe I need a college degree for gainful employment* | 33 | 84.6 | 59 | 83.1 |
| 3. Parents expected me to graduate from high school* | 27 | 69.2 | 32 | 45.7 |
| 4. It's important for me to be an educated person | 33 | 84.6 | 68 | 95.8 |
| 5. It's important to family and friends that I am an educated person | 38 | 97.4 | 63 | 88.7 |
| 6. Main reason my family wants me to go to college | | | | |
| To get a credential that will lead to a job | 28 | 71.8 | 56 | 78.9 |
| To become a better educated person | 7 | 17.9 | 13 | 18.3 |
| They do not want me to go to college | 4 | 10.3 | 2 | 2.8 |

*p < .05

Discussion

This exploratory study used the framework for measuring social capital developed by Nahapiet and Ghoshal (1998), which provided a starting point for examining the role of structural, relational, and cognitive social capital in supporting first-generation students as they make the decision to apply for and enroll in college. Characteristics of the study's sample of students matched attributes commonly found in research with the first-generation population in higher education (i.e., non-white, experiences with foster care, employed while taking classes). First-generation students typically have a greater number of barriers to overcome as they make the decision to attend college than their continuing-generation peers (Holland, 2010; RTI, 2019). The firstgeneration students who successfully enroll in college reflect high levels of cognitive capital. Personal beliefs and perceptions of the values placed on education by family and friends were indicators of cognitive capital in this study. Significantly more first-generation students indicated a belief in the necessity of a college degree to be gainfully employed. Both groups were equally confident in their ability to graduate and earn a degree. The majority of both groups indicated it was important to be an educated person, yet just over half of first-generation students indicated family and friends believed it was important for the student to be an educated person. This nuance hints at education as less of a shared value. Both groups selected the main reason their family wanted them to go to college was to get a credential that would lead to a job, building on a shared desire to be gainfully employed. Along these lines, employment was also a necessity, with first-generation students working more hours for pay to make ends meet while taking college classes. These dual roles often increase the stress of work/school/life balance, which can impact retention and graduation rates.

Communities are enhanced by having members who earn professional and technical degrees, especially when they return with their skills and knowledge to work, raise families, and serve as mentors for others in their home communities (Kingsolver, 2017; Taylor et al., 2012). In this way, it may be beneficial to foster connectivity between community groups and businesses with local high schools and colleges. Offering dual-credit courses is one way high schools and colleges can encourage college attendance for first-generation students. Offering financial aid, scholarship information, and career counseling provides important structural and relational social capital resources for students to learn about college and find a path to attendance (Crain & Newlin, 2021; Holland, 2010; Peabody, 2013). Bridging the gap between high school, college, and community employment needs is essential in assuring more students can access higher education and communities gain skilled workers.

Only about half of the students indicated their high schools helped with financial aid applications necessary for college. This highlights a need to ensure all high schools are offering financial aid assistance for all eligible students, which might include scholarships or grants from the community. The Free Application for Federal Student Aid (FAFSA) is complicated, and we might expect more first-generation students to use this resource since they do not have parents who have experience with this process. Preventing unnecessary student loan debt through education and support at the high school level should be a priority. First-generation students may have no idea how these loans work or how to calculate the necessary elements of attending college, like the cost of housing, food, books, and tuition. Ideally, institutions engage all students in financial planning activities in high school, including the first-generation students interested in attending college. It is not surprising that about one-quarter of first-generation students believed their parents were not very supportive of attending college. This thread continues as first-generation students reported teachers and friends had a greater influence on their decision to apply to college than parents. In fact, about twenty percent of firstgeneration students felt they had navigated the decision to attend college on their own. After making the decision to apply to college, over half of first-generation students felt they further navigated the application process alone, and sixty-one percent ended up selecting a college by themselves. These data indicate there may be more first-generation students interested in attending college, but without the relational capital to navigate the process of applying and selecting a college, they do not pursue the opportunity.

From a structural capital viewpoint, high schools could collaborate with colleges to better target first-generation students with additional support and encouragement for enrolling in college. From a relational capital perspective, teachers and mentors might be encouraged to work with first-generation students to ensure they know college is an option and to help them navigate this process if needed. The capability of firstgeneration students to navigate the college application and enrollment processes on their own emphasizes resilience and persistence, which merits further exploration. Colleges and high schools can use the idea of social capital to inform program development that supports first-generation students in connecting to higher education networks for support and guidance (Holland, 2010; Peabody, 2013).

This sample of college students includes a significantly greater number of first-generation students who spent time in the foster care system, and this is an often-overlooked population regarding higher education. Current programs that provide federal tuition waivers for foster youth should consider expanding linkages between high schools, communities, businesses, and colleges to increase the structural capital networks. The number of children placed in foster or kinship care has risen nationally over the last decade, with over 65,000 transition-age youth in the U.S. in foster care (Administration for Children and Families, 2017). Youth aging out of foster care are often eligible for tuition waivers, and many are also first-generation students who have the added barrier of frequent home and educational placement disruptions that may limit positive connections to adults who could mentor them in accessing college. Having an adult mentor has been shown to help overcome these barriers to college (Herrmann et al., 2021; Okpych & Courtney, 2017). Foster care programs should consider increasing youth's relational capital through mentorship to aid in navigating the transition to higher education (Roberts, 2021). In addition, colleges could reach out to youth aging out of the foster system in the application process to connect them with support from other first-generation students who have already

enrolled in college. This will build a shared sense of purpose and build relational and cognitive capital among first-generation students.

Limitations

This exploratory study was based on a small convenience sample of students from one department in a four-year university. Students who completed the survey were individuals who had already enrolled in college; therefore, the characteristics of these students may be different than students who did not apply or enroll in college. Future studies should expand the sample to include other universities and more college majors that serve first-generation students and, perhaps, other universities that serve and recruit from disenfranchised population areas. A qualitative approach should also be considered to ask more specific questions about social capital among transitionage youth. The quantitative data blended with qualitative information might yield more insights into the role of social capital in student decisions to enroll in college and complete higher education. Following up on student success once in college, reasons for transferring between colleges, and more intentional sampling of youth aging out of foster care is also recommended in future studies.

Conclusion

This study indicates there is more to be gleaned from the continued exploration of social capital amongst transition-age youth who are seeking to attend college. It is important to understand ways structural capital can be bolstered through programs to support families and communities and the next generation of college students. First-generation youth are showing cognitive capital through the strength and fortitude necessary to access college programs on their own. This study recommends enhancing structural capital through school and community support programs for parents and families, including foster parents, which might better position them to assist first-generation students. Expanded support during the college application process, adding more financial aid and scholarship options, increasing on-campus engagement opportunities for high school students who are first-generation, and creating links between community businesses, high schools, and colleges could improve the likelihood of first-generation students being able to successfully transition to college after high school.

Despite the challenges faced by first-generation students, they report high levels of cognitive capital, evidenced in their confidence in graduating with a degree at levels equal to that of continuing-generation students. The fact that students are reporting a

strong belief in their ability to succeed in college is an excellent sign. Structural capital increases could potentially have an impact on higher education achievement and future success for these youth. In addition, communities and schools can use social capital theory to expand their understanding of how to support students who want to earn a higher education degree, particularly in fields where trained professionals are in high demand within a region, like nursing, social work, or computer sciences. First-generation students want to go to college but need structural and relational support to reach their higher education goals.

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