Predictors Associated with College Attendance and Persistence Among Students with Visual Impairments

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Abstract

Students who are blind or visually impaired are attending college at higher rates than ever before but are not achieving comparable academic outcomes to peers without disabilities. The variables that are associated with success in the college context among students who are blind or visually impaired have not been quantitatively examined. In this study, the researchers analyzed data from the second National Longitudinal Transition Study (NLTS2; SRI International, 2000). The NLTS2 provided a nationally representative sample of youth who were blind or visually impaired. The authors sought to determine statistical predictors of college attendance and persistence. College persistence was defined as earning 30 credits, equivalent to the attainment of sophomore status. An earlier exploratory factor analysis had identified factors, which the authors used in in this study to perform the regression analyses of attendance and persistence. Parent expectation of a youth's attendance was the variable most strongly associated with college attendance. Youth whose parents expected them to attend college were nearly eight times as likely to attend, compared with youth whose parents did not expect them to attend college. The student's ability to find academic help from sources outside of university-provided supports was the variable most strongly associated with persisting to at least 30 credits. Students who reported finding help outside of university-provided supports were four times as likely to persist to 30 credits. Recommendations are made to school personnel, university personnel preparation programs, and university disability services professionals.

Keywords: blind, visually impaired, NLTS2, college, transition

Each fall, eager students who are blind or visually impaired (blind/VI) arrive on college campuses along with other freshmen to begin their journey toward graduation. Many of these students, their parents, and professionals in their support networks may approach the college experience with a sense of optimism. However, of those who began college in 2009, as many as 70% of students at two-year institutions and 46% at four-year institutions did not graduate from the same institution within 150% of the normal time (U.S. Department of Education [USDOE], 2017). This rate has remained stable within 2% for ten years.

Prior research has shown students who are blind/VI begin postsecondary programs at a rate of approximately 71% (Newman et al., 2011), which actually is slightly higher than the general population (68.1%; BLS, 2011), or of students with all disabilities considered as a group (67%; Newman et al., 2011). Students' chances of success are dependent on circumstances that the students, parents, or staff in disability services offices may not be able to control or change. What are the factors that are associated with persisting or not? To what extent are they inherent or external to the students and associated with their prior experiences? And, in either case, what are the implications for supporting success? The current study sought to answer some of these questions about students who are blind/VI by exploring characteristics and experiences starting in high school that were associated with greater likelihood of attending college and of persisting to earn 30 credits. This investigation was made possible by access to a longitudinal data set.

Literature Review

Higher education is important for many reasons, but a primary reason is that it makes a difference in employment rates and salaries. Youth with disabili-

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ties tend to have lower levels of both education and income than the general population (Newman et al., 2011), and they are less likely to be employed (O'Neill, Kaczetow, Pfaller & Verkuilen, 2017; Yelin & Trupin, 2003). Jobs with better salaries usually require higher levels of education than jobs with lower salaries, whether or not job seekers have disabilities (Carnevale & Fry, 2000), and people with disabilities who do not attend postsecondary school are more likely to be unemployed (Madaus, Grigal, & Hughes, 2014; Newman et al., 2011; Yelin & Trupin, 2003). Parents, general and special education teachers, and disability services professionals could make a difference in the lives of youth with disabilities by supporting academic success throughout the school years that could result in good salaries and high standard of living.

Individual demographics comprise the backdrop of each student's story, revealing risk and resilience factors that highlight the extra support needs of specific groups, as well as factors that may be associated with greater success. Demographic variables should be included in studies of persistence, but other factors could play a role. These might include skills learned at school and exposure to other experiences or availability of certain supports. These characteristics and experiences can change throughout the school and college years due to maturity, intervention, and access or availability of supports. Results of prior research, reviewed in the sections that follow, provide preliminary evidence for some skills and experiences associated with college success for students with disabilities as a larger group. These include, among others, academic achievement in high school, a sense of self-determination, and social skills. The present study investigated these features but also investigated characteristics specific to blindness and visual impairment that could be associated with college success, such as use of braille or large print, use of computer access technology and level of skills to move around campus effectively.

Demographic Descriptors

A youth's demographics, such as race, gender, family history, and socioeconomic status may play an important role in understanding outcomes. For complex social-historical reasons, members of racial minority groups with and without disabilities have lower college completion rates (Yamamoto & Black, 2013) and are three times less likely to be engaged in either employment or education after high school than non-minority youth (Benz, Yovanoff, & Doren, 1997). Although the vocational rehabilitation system is intended to operate on a level playing field, African Americans are less likely to receive financial support for college through the vocational rehabilitation system (Boutin & Wilson, 2012). Gender is also a factor in postsecondary outcomes.

Females with disabilities have fewer positive adult outcomes than males, although this may be more due to parent expectations of young women's ability to achieve (Hogansen, Powers, Geenen, Gil-Kashiwabara, & Powers, 2008). When Boutin and Wilson (2012) examined individual vocational rehabilitation plans, they noted that females with disabilities are more likely to pursue university training as a part of a vocational rehabilitation plan than males, who may pursue other options. They speculated, however, that this may reflect the growing number of females in the general population pursuing higher education.

In addition to race and gender demographics, family history may play a role in academic success. Being a member of the first generation in a family to attend college is recognized as a risk factor for dropping out, whether a student has disabilities or not (Chen, 2005). Having a disability increases the risk: first generation students with disabilities have lower grade point averages (Lombardi, Murray, & Gerdes, 2012) and higher drop-out rates (Lombardi et al., 2012; Pascarella, Pearson, Wolniak, & Terenzini, 2004), especially when faced with financial stress (Lombardi et al., 2012).

Regardless of disability status, greater financial stress may be a reflection of lower socioeconomic status, which has been noted as a barrier to postsecondary education (Karpur, Nazarov, Brewer, & Bruyere, 2014; Lee, Rojewski, Gregg, & Jeong, 2014; Madaus et al., 2014). If the student's high school is urban or is lower in socioeconomic composition (Niu & Tienda, 2012), lower academic outcomes are more common, attributed to having fewer resources that would support postsecondary persistence.

Preparation for Academics

Some evidence suggests that youth who are blind/VI may be less academically prepared than their peers without disabilities. Using the college preparedness index that they had devised, Horn and Berktold (1999) found that only 13.9% of students who are blind/VI were defined as adequately qualified for a four-year college experience. In the same study, the remaining 86.1% of students who are blind/VI were reported to be only minimally qualified or to be minimally to somewhat qualified. Moreover, twice as many students who are blind/VI take remedial math and English in high school, compared to students without disabilities (Newman et al., 2011). This allows them to complete high school, but may not

prepare them for the demands of college level work, raising the question of how students who are blind/VI decide whether to go to college. College students may also vary in their use of disability services offices.

Using Disability Services in College

Disability services personnel are present at every college that receives federal funding, which is virtually every campus in the nation. These professionals do not seek out students who need help, rather, they are present and must wait for students to self-disclose their disabilities and support needs. Although 87% of students with disabilities in a nationally representative study sample had received disability accommodations while in high school (Newman et al., 2011), only 19% of those who went on to college received some type of disability-related accommodation or support there. Notably, college students who are blind/VI received academic supports provided by the college at a rate of 59%, but their higher self-disclosure rate has not been investigated thoroughly, and this figure still indicates that 41% of those who received accommodations in high school do not disclose their disability. Perhaps, students who are blind/VI disclose at higher rates because they need more supports, or they may find it easier to request accommodations because their disability is obvious. Seeking help outside of formal supports provided by the college is common among students with and without disabilities (McCall, 2014; Newman et al., 2011). Whether or not they also used supports provided by the college, one study indicated that 52% of students who are blind/VI found academic help on their own (Newman et al., 2011).

Disability Disclosure

Disclosing their disabilities when in college is an indicator of a student's level of self-advocacy skills, one aspect of the self-determination construct. In a qualitative focus group study, students reported that, although they considered self-determination and self-advocacy important to success in college, they tried at first not to disclose their disabilities (Getzel & Thoma, 2008). After failing classes, those who disclosed their disabilities (to professors or disability support personnel) and requested accommodations reported being more successful. This is not surprising, given that higher levels of self-determination are associated with success in secondary education (Copeland, Hughes, Agran, Wehmeyer, & Fowler, 2002). Other evidence suggests, however, that college instructors may not always understand the needs of individual students when they do try to communicate their needs and preferences to instructors (Myers & Bastian, 2010).

Self Determination

Self-disclosure of disabilities may be associated with self-determination skills, so it is worth considering whether self-determination skills can be learned. Some evidence suggests that self-determination is not static; it can be increased among youth with disabilities through instruction in autonomy, self-advocacy, and psychological empowerment (Cobb & Alwell, 2009; Wehmeyer, Palmer, Shogren, Williams-Diehm, & Fowler, 2013). Having higher levels of self-determination is useful only if a youth has opportunities to use those skills, however; some reports indicate that blind/VI youth not only have lower levels of self-determination but also fewer opportunities to practice self-determination skills than youth who are not blind/VI (Robinson & Lieberman, 2004; Sacks, Wolffe, & Tierney, 1998).

Self-determination also may interact with individual demographic characteristics, such as race and gender. Among all students with and without disabilities, Latino students reported higher self-determination skills than Anglo students (Rodriguez & Cavendish, 2012). Among males, but not females, ethnicity explained a significant amount of the variance in self-determination after controlling for family environment in this study.

High school may be one place for blind youth to practice self-determination, but only if they are included in general education classrooms and other mainstream activities. Inclusion in general education, that is, learning in a classroom alongside students without disabilities, has been associated with better educational outcomes in a number of studies, though not specifically for students who are blind/VI (Goodman, Hazelkorn, Bucholz, Duffy, & Kitta, 2011; Halpern, Yovanoff, Doren, & Benz, 1995; McCall, 2014). In the college setting, all students work together in the same settings, regardless of disability, and it is not known whether students who are blind/VI who experienced inclusive settings in high school will have more success in college. Self-empowerment and independence might be indicators of success in navigating the campus, especially for those who have better orientation and mobility skills.

Orientation and Mobility Skills

The ability to get around on campus, finding buildings, classrooms, and people would be valuable to any student, but results of outcomes research have been mixed in this area for students who are blind/VI. Orientation and mobility (O&M) skills refer to travel using alternative techniques to accommodate vision loss. These skills have a relationship to college success. Wolffe and Kelly (2011) found a positive