

College Preparation and Participation: Reports from Individuals Who Have Speech and Mobility Disabilities

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Abstract: In this qualitative research study, nine individuals with mobility and speech disabilities reported on their experiences preparing for and participating in postsecondary education. Topics discussed include choosing a college, support from mentors and family members, self-determination, accessibility and accommodations, academic and social aspects of college, current activities and outcomes.

Key Words: postsecondary education, speech and mobility disabilities, transition

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Introduction

Individuals who have physical and speech disabilities face substantial challenges in achieving academic success in school and adult life. As children, their talents and abilities may go unrecognized because their disabilities make it difficult to communicate what they know (Willard-Holt, 1998). Low expectations of adults may restrict their access to appropriate instruction and physical disabilities often limit their range of experiences (Koppenhaver & Yoder, 1993; Light & McNaughton, 1993; Marvin & Mirenda, 1993). Many students with speech and mobility disabilities have considerable difficulty with literacy learning (Koppenhaver & Yoder, 1992; Smith, 2005). Reading difficulties impact all aspects of academic study and may be a factor in limiting postsecondary academic pursuits for some students with speech and mobility disabilities. As a result of these issues, individuals with both physical and speech disabilities may face considerable difficulty completing postsecondary education and pursuing a career (Odom & Upthegrove, 1997).

Employment success for people with disabilities is highly correlated with educational attainment (Blackorby & Wagner, 1996). In fact, a stronger correlation has been reported between level of education and rate of employment for individuals with disabilities than for the broader population (Stodden & Dowrick, 2001). A growing body of literature explores employment issues for people with significant speech and mobility disabilities (Bryen, Cohen, & Carey, 2004; Isakson, Burgstahler, & Arnold, 2006; Light, Stoltz, & McNaughton, 1996; McNaughton, Light, & Arnold, 2002), yet little information is available on the postsecondary academic experiences of these individuals. Although we do not have data on the college experiences of individuals with physical and speech disabilities, there is a body of research on the postsecondary academic experiences of the broader population of students with disabilities (e.g. Blackorby & Wagner, 1996; Wagner, Newman, Cameto, Levine, & Garza, 2006). A comprehensive analysis published by the National Center for Educational Statistics (NCES) reported that students with disabilities were less likely to be academically prepared for college

than their non-disabled peers (Horn & Bobbitt, 1999). Students with disabilities were less likely to apply for college admission than peers without disabilities. Students with disabilities who pursued postsecondary education were less likely than their non-disabled peers to attend a four-year school and were less likely to earn a degree. Nonetheless, 80% of individuals with disabilities who did earn a bachelor's degree reported finding employment after graduation; in addition, no significant differences were found in starting salaries for college graduates with and without disabilities (Horn & Berkold, 1999).

Although large statistical studies have clear value in documenting the broad picture of college preparedness and participation, there is also much to be learned from smaller qualitative studies that explore the experiences and perceptions of individual students. In a survey that examined the high-school-to-college transition experiences of 59 students with various disabilities, the participants reported that the three major barriers they faced in succeeding at college were (1) societal attitudes, (2) lack of preparation, and (3) financial constraints (Garrison-Wade & Lehmann, 2007). Participants reported that low expectations of high school teachers and lack of access to rigorous college-track classes left them ill-prepared for college-level work. The students reported that the factors that promoted their success included their own self-determination and the support and encouragement of family. Self-determination, including self-advocacy skill, plays an increasingly important role as students transition from high school where accommodations are the responsibility of the school district to college where more responsibility shifts to the student (U.S. Department of Education, 2007).

Purpose of the Research

A study was undertaken to explore the perceptions of individuals with speech and mobility disabilities about their preparedness for college and their postsecondary academic experiences. The researchers sought a greater understanding of the factors that contributed to the success of these students, as well as those factors that presented obstacles. It was expected that the results could help educators, parents, and others better support students with mobility and speech disabilities as they transition to college and careers.

Method

This exploratory study used an internet-based focus group to examine the postsecondary academic perceptions and experiences of individuals who have mobility and speech disabilities. The focus group is an effective research tool for uncovering the perspectives of individuals who have common characteristics and experiences with regard to the topic of study (Krueger & Casey, 2000; Vaughn, Schumm, & Sinagub, 1996). In recent years, computer-mediated communication (CMC) has played an increasing role in facilitating communication between individuals whose face-to-face interactions were constrained by distance, overloaded schedules, and/or disabilities that impact communication (Burgstahler, 2006). The development of assistive technology—e.g., expanded keyboards, on-screen keyboards, and Morse code input devices controlled with switches—makes electronic communication possible and practical for individuals with a wide range of disabilities. Asynchronous communication eliminates scheduling problems and allows individuals to take the time they need to formulate responses. It removes the stigma of speech impairments. Other recent studies have used CMC to support focused discussion among individuals with disabilities (McNaughton, Light, & Arnold, 2002;

McNaughton, Symons, Light, & Parsons, 2006; Rackensperger, Krezman, McNaughton, Williams, & D'Silva, 2005). For individuals with speech and mobility disabilities, an asynchronous online focus group minimizes physical demands on participants and allows each participant to contribute at a pace and time that is appropriate and convenient (McNaughton, Light, & Groszyk, 2001).

Participant Recruitment

To participate in this study, an individual had to (a) be over 18 years of age, (b) be a high school graduate, (c) have a desire to attend college, (d) have both a mobility impairment and a speech impairment, and (e) have access to electronic mail. Potential participants were identified from a database of hundreds of individuals who had, since 1992, participated in at least one of many nationwide activities sponsored by the Disabilities, Opportunities, Internetworking, and Technology (DO-IT) Center at the University of Washington. DO-IT helps middle school, high school, and college students with a broad range of disabilities transition to and succeed in postsecondary education and employment (Kim-Rupnow & Burgstahler, 2004; DO-IT, 2006).

An email recruitment message was sent to fifteen individuals who had self-identified as having both mobility and speech disabilities and who had attended college or expressed a desire to attend college. Nine individuals agreed to participate.

Procedures

Participants were asked to complete a demographic questionnaire that included questions about their school and work history as well as their use of assistive technology for mobility and communication. After all participants had responded to the questionnaire, the researchers created a closed email list that was administered through the University of Washington list management system. The investigators facilitated the focus group by presenting topics for discussion and posting follow-up questions when appropriate. The discussion topics, queries, and responses were sent by electronic mail to all discussion group members. The focus group discussion took place over a period of 12 weeks, with a new topic presented every 5 to 10 days. The topics and queries posted can be found in Appendix A.

Analysis

The qualitative analysis software package Atlas.ti (Muhr, 2000) was used for coding and data management. The content of each electronic mail message posted by the participants during the discussion was entered into Atlas.ti. Each standalone unit of information was assigned a code that identified the main theme of the unit (Lincoln & Guba, 1985; Strauss & Corbin, 1998). The codes were refined through an iterative process and finally combined into code families or categories of codes. The findings in the following section are presented under three broad categories of content that correspond to the code families: preparation for college, the college experience, and outcomes and attitudes.

Findings

Six of the nine focus group participants were students at the time of the study; two were attending community colleges, three were pursuing four-year degrees, and one was in graduate school. The three oldest participants were not in school at the time; one had earned an associate's degree, one had earned two bachelor's degrees, and the third had left school without earning a degree. There were 6 male and 3 female participants ranging in age from 21 to 38. Seven of the participants had cerebral palsy and two had brain injuries. Participants used wheelchairs, scooters, a three-wheel bike, and walkers for mobility. They used both high-tech and low-tech augmentative and alternative communication (AAC) devices to supplement or replace speech. Each name included in this article is a pseudonym.

The focus group discussion generated 141 email messages over a 12-week period; 29 messages were from the two researchers and 112 were from the nine participants. Not all participants contributed to every topic. During the 4th week of the discussion, Crystal reported that she would not be able to continue in the focus group because of the workload of her classes. Her responses to the first three topics are included in the analysis. Note that, in the excerpts from email messages presented below, typographic and spelling errors have been corrected, symbols and abbreviations have been expanded, and standard capitalization has been used.

Preparation for College

Researchers asked focus group participants how well their pre-college school experiences prepared them for life after high school. The participants reported a range of experiences. Dana and Will reported that their schools provided training in independent living skills:

“They designed an independent living class for me to take during high school to aide me through my transition, and we did activities like going out to eat, going shopping, going to the grocery store, going to the bank, visiting the independent living center etc. At least they attempted to prepare me but I feel they could have been more effective.” (Dana)

“The last semester of my senior year, my case manager let me get out of the building and do some other experiences, which was fun. I think the key is let the student be in charge of their destiny.” (Will)

Michael reported that he developed study skills that served him well in college:

“Elementary and high school prepared me for college by giving me a solid foundation of good study habits and knowing I always had to get my homework done early.”

Other students felt inadequately prepared by their early school experiences. Brad and Benjamin both expressed disappointment with the academic opportunities available to them in high school:

“Throughout middle school and high school, I took honors and Advanced Placement [AP] classes which were meant to be challenging and prepare me for college. Unfortunately, the AP classes at my high school were like standard classes at other high schools and didn’t prepare me for college or the AP tests very well.” (Benjamin)

Brad reported that he was not allowed to take the advanced placement (AP) classes that he desired and was dissatisfied with the advice he received:

“My high school did not prepare me at all really, and this included my [Individualized Education Program] IEP team. For example, most people knew I wanted to go to college. I wasn’t allowed to take AP classes. They almost messed up my entire college career by telling me that a foreign language class wasn’t needed at all.”

Supportive Teachers and Mentors

Some participants mentioned specific teachers who played a supportive role in their early education. Rebecca reported that a teacher she met when she was very young helped her family navigate the public school experience:

“My preschool teacher had a daughter with cerebral palsy that was five years older and I kept in touch with that teacher all through my schooling So, my teacher kept telling my mom and me what to watch out for and what kind of problems we might come across.”

One of Jennifer’s teachers played a significant role in her decision to go to college:

“My high school drama teacher put the college bug in my head. I thought she was cool because she was a free spirit [and an] environmentally conscious person, so I listened to all of her cool college stories.”

Benjamin was influenced by a teacher who encouraged him to expand his assessment of his own capabilities:

“One teacher whom I had for two years of journalism ... knew all along that I possessed more abilities than I even knew were in me... [He believed] in my abilities enough to encourage me to push my limits. While he was my teacher for journalism ... he wanted me to find a way to take pictures.... I brushed it off by telling him I would look into it, having no real intention of doing so.... A few weeks later when my parents returned from the school’s open house, my dad said that [my teacher] had suggested he help me adapt a camera so I could take photographs.

A week or so later, I was taking pictures of our wrestling team in action... [My journalism teacher] ... believed in my abilities and in me as a person. I left his class knowing that I had many more abilities within myself waiting to be discovered.”

Family Support

Many participants reported that they received their strongest support and encouragement from family:

“My high school team always knew I wanted [to attend] and would attend college, yet they didn’t really help me that much.... My mom always was behind me and pushed me.” (Brad)

“Mom and my assistants and friends always encouraged me because they all know that with the right help that I could do most anything... Some of the teachers and other helpers thought that ... I shouldn’t be mainstreamed because with my physical and language disabilities I couldn’t always show them what I knew.” (Rebecca)

“Well, nobody really pushed me for college except my parents and my IEP team. It was very interesting because [going to college] was my choice.” (Will)

“My mom, dad and brother along with my teachers encouraged me to set high goals for myself, not to mention I set high goals for myself anyway.” (Michael)

Initial Areas of Interest

Focus group members reported a variety of academic and career interests while they were in high school. Michael had the goal of becoming an elementary school teacher. He wrote, “I planned my entire life to be a teacher.” Crystal stated that, while she was in high school, her career interests included “archeology, civil rights activist, librarian, forensic anthropologist.” Dana, Benjamin, and Brad reported that they were interested in technology and computer science. Dana wrote, “My main interests have always been computers, software and augmentative and alternative communication.” Jennifer said that she enjoyed working with people and wanted a job where she could “inspire people to empower themselves.” Will also sought to inspire people and reported, “I always had a desire for public speaking. People need to be inspired somehow... Speaking is my calling for sure!!!”

Rebecca reported that she had three specific career interests while she was in high school:

“At first I was interested in becoming a person that goes around to different businesses and makes sure that they are accessible to all people. My second interest was working in a preschool because when I was in high school I took child psychology and volunteered in a preschool and really enjoyed it. Also when I was in high school my friend ... and I started our own business as our junior and senior high school projects making and selling soap... Besides earning money, our goal [was] to help the community interact with disabled people in business... I would like to own my own business.”

Choosing a College

Five of the participants began their college careers at four-year colleges, while four started out at community colleges. Several participants mentioned proximity to home and family as an important factor in their college choice. Dana reported:

“I chose [a state university] primarily because it’s in my hometown, and at that time it was questionable how independent I might have been, so my parents preferred me to stay nearby home.”

Like Dana, Brad attended a four-year college after high school graduation:

“I selected the two schools I applied to by knowing about ... the programs I was interested in by national recognition or word of mouth. The largest factor was accommodations given.”

Financial considerations were a factor in the choice of a college. Jennifer reported: “I went to [a state college] my freshman year because of in-state tuition and free rent.”

The participants in this study were also concerned with issues of accessibility and levels of support available from campus organizations charged with providing services to students with disabilities. Hugh chose a community college in his area because “they have the most comprehensive service for cerebral palsy students.” Jennifer reported that she was influenced by “a wheel-chair friendly campus” and Brad reported that accessibility issues and campus terrain played into his decision as well.

Two students reported that it was through campus visits and informational events that they learned about the schools they eventually attended:

“I picked [a community technical college] because I toured it once and I really loved it. I was on a tour with some students from my high school, and I liked it the best out of all the colleges we visited.... You felt a sense of community from [students of] all different backgrounds.” (Will)

“I had originally intended on going to [a state university], but I changed my mind my junior year in high school when I went to a college fair and learned more about [a small private college]. I chose [that school] for its Christian environment and smaller classes.” (Benjamin)

Will reported that he could have used more help with the college application process: “College was a challenge for me because I was on my own as far as applying. I had to know when everything was due (I didn’t), get everything in on time (I didn’t)... At my high school, the special education program there never really stressed the issue of getting forms in. I felt that they didn’t prepare me for what I had to do. Maybe it was my laziness too, I’m not ruling that out.”

Similarly, Dana reported that “high school graduation was almost like getting dumped out on the street by the school system to fend for yourself... I feel they could have done more to prepare me.”

The College Experience

Participants who lived on campus found the experience both challenging and rewarding. According to Benjamin:

“For me, the biggest challenge (yet most rewarding) was living on campus. I lived at home my freshman year because I didn’t think I could live on campus due to the amount of help I need. Late in my first year, though, my dad and I decided to make it work by finding a roommate who was willing to help me out.

We didn’t tell my mom until a couple weeks before I moved because we knew she would not be happy. When she found out, she thought it wouldn’t work. My dad humored her by saying, ‘Maybe you’re right, but we have to let him try.’ She changed her mind after she saw how happy I was living in the dorms. The next summer when I moved back home for a few months, she couldn’t wait until I went back, and I felt the same way!:) Funny thing is that I found myself only using my roommate for help part of the time. The rest of the time, I’d ask the guys on my floor for help, and girls often offered to feed me (which I didn’t mind AT ALL!).”

Brad reported challenges finding personal care assistants. Jennifer reported that living in a dormitory presented her with challenges during her first year, yet she did not believe that her disability created those challenges:

“It took my first semester of college of trial and error and more error to ‘figure life out’... cleaning, cooking, laundry, timeliness, sleep, bills, and so on...My roommates were just as lost. I have not met a college freshman ... [who was] prepared...Working freshman orientation for three years, [I observed that] everyone had the ‘deer in headlights’ look.”

Accommodations

Rebecca reported that it was difficult for her to make the transition to college:

“I had a challenge when I moved from having a one-on-one assistant to a program at a college ... [without] the same support. ...When I first got [to college], the program had someone who went to class and helped me with my assignments and that was great. But after a couple of quarters ... [they] just stopped going to class and sitting down with me to help me with my assignments. I started to get very frustrated and couldn’t figure out why I wasn’t getting the help anymore. After a while I had mom set up a meeting ... to see what was going on...They said that they only have to help me for the first year and then they don’t have to help me any more. They also told me that maybe college wasn’t the right thing for me...After the meeting, for the two next quarters I had gotten a tutor and had the same one and did great.”

After changing his major, Brad had difficulty getting the accommodations he needed:

“One thing I faced that I didn’t [foresee] was getting denied some accommodations from Disabled Student Services [DSS]...Mid-way through my second year I had switched from engineering/computer science to liberal arts. This required a lot more reading — and I need e-text, something that my paperwork said I may need. [The] DSS view was you’ve gone this far without it, you shouldn’t need it. My reply was yes, but I was taking courses that were heavy in math, so running a calculus formula through [text-to-speech software] would be basically useless for me. Also when I read a lot my eyes get more tired than an average student...[DSS] claimed my eye tiredness wasn’t anything real; I just had to deal with it, and also they only give the accommodation of text to e-text to students who are labeled LD...To make a long story short, it took a threat of going to court for them to find me needing the accommodation without having a [diagnosis of] LD.”

Access to appropriate technology can play a powerful role in supporting the academic success of students with disabilities. As Will reported, “Ah technology, the thing that can either be very beneficial or drive you up the wall.” Dana, one of the older participants in the focus group, had attended college a decade earlier and had dropped out after one semester. Dana reported:

“Another thing I didn’t have access to when I attempted college is my [AAC device] which allows...me [to] compose written work by use of my programmed vocabulary to speed up things. Another thing is I didn’t have a screen reader at the time, which now I do and really benefit by, it has really opened up a whole new world for me...I feel that I would have probably succeeded in college if I had all these ducks in order before starting.”

Social Interactions and Communications

Meeting new people and interacting in social situations can present challenges. Benjamin reported:

“I have found it can be difficult to make friends simply because of my unclear speech. People tend to be afraid to talk to me because they can’t understand me at first. Funny thing is that my wife and I went to the same college but hardly ever talked because she was afraid to talk to me. It wasn’t until we started going to the same church that we became friends. Once people get past the uncomfortable stage, though, they usually treat me like anyone else.”

Brad and Hal reported difficulties connecting with others:

“My experience has been generally poor for making friends. Occasionally I will talk to a few people before class, but ... usually they just forget to

tell [me] about study groups... Occasionally I'll see somebody from a class, and we say hey, but that's it." (Brad)

"It's usually way easier for me to make friends with guys. When women find out that I care for them, they usually freak out bad. It becomes just disastrous." (Hal)

Will, on the other hand, reported that he makes friends easily and maintains a positive attitude even when relationships are challenging:

"I socialize a lot, so making friends isn't that hard... I have a tendency to walk up to random strangers and just start talking... You make more friends that way... There were some challenging relationships in my school, but it wasn't because of my disability. It was more typical college awkwardness... In all, I can connect with just about anyone, anywhere, and that's a blessing."

Jennifer recommended giving new acquaintances time to become comfortable, "Just gotta give time and space. Show them respect. Remain confident, not overbearing. And if it takes a few interactions, so be it." Dana agreed, "I have always learned to not force people to be comfortable around me, they have to do it themselves, and if they don't, they just don't."

Rebecca reported that having a friend along can facilitate interactions with new acquaintances:

"Some people are afraid to talk with me. When I have someone with me, that person starts a conversation and then we have me join... to show everyone that if you just are patient that you can have a regular conversation with me. I just started to feel comfortable to start a conversation with a person that I am just meeting for the first time. I didn't feel comfortable going up to people that didn't know me because I was so worried about if they would be able to understand me... DO-IT helped me become more social when I am in groups and around people that I don't know very well."

Jennifer reported that shared connections and repeated encounters help her connect with others:

"My personal relationships usually stem from a disability connection, my sister, and/or the 'rate of repeat'... i.e. dorm, class, small town, Starbucks at 6 a.m., city bus... wherever. And my sis and I are really close, so her friends are my friends, and my friends are her friends. But wherever I meet friends, we share commonalities... soulful, compassionate, love for outdoors and environment, etc."

In one social relationship, Benjamin found that he was able to help another student by accepting help from her:

“There was one girl during the later part of my sophomore year of college who asked if she could feed me almost every meal. We became good friends, and she confided in me that she was anorexic, so helping me eat forced her to eat as well. She was helping me, but it turned out I was helping her as well!”

Change in Plans

Brad and Michael were both seniors at four-year colleges at the time of the focus group discussion and both had experienced changes in their paths while in college:

“I had my heart set on [specific state university] for a long time, so I didn’t even check into other schools. After being [there] for two and a half years, I still didn’t feel accepted there, or that it was the right place. I...transferred to [another state college], which has the perfect environment for me. I feel right at home here. The classes are set up how I want them to be, and everyone is more enlightened here overall.”
(Michael)

While in college, Michael’s career plans also changed:

“I decided elementary education was not the field for me because of all the hands-on type stuff required of teachers...Now I am planning on being a school counselor.”

Brad’s plans changed when he was not admitted to the very competitive computer science department at the university he attended:

“I began college looking to major in computer science. After getting told ... that I should look elsewhere, I began to explore other disciplines. Currently I am studying political science. My interests are still basically unchanged.”

Jennifer and Benjamin both graduated from four-year colleges and worked in their chosen fields for a number of years before their circumstances led to career path changes:

“I’ve always enjoyed working with people...I started in recreation therapy. With all the budget cuts and no driver’s license, I couldn’t really advance further in the field. Then, I got into social services...[Now] I’m in my second week of my master’s degree for social work.” (Jennifer)

“I was a programmer for 2.5 years before being laid-off in the dot-com bust. After trying to find a job for over a year, I tried motivational speaking full-time for a few years but only landed a few bookings. Now I speak part-time, but much of my time is spent working on a non-profit foundation my wife and I started ... to help people with mobility impairments get the equipment they need and want.” (Benjamin)

Outcomes and Attitudes

In the following paragraphs the authors report participant academic and career progress and share some of the participants' insights and advice.

Hugh, 38, was the oldest participant in the focus group. He graduated from a community college when he was 29 years old and was a featured speaker at his community college graduation. He transferred to a large state university but left without earning a bachelor's degree. Hugh had worked part-time doing website design, but at the time of the study he was unemployed. About his previous job he wrote, "I worked there for a few months as a volunteer, then they hired me as a part-time employee. I MISS THAT JOB." His advice for others is, "Just believe in yourself! Plain and simple."

Benjamin, 32, earned a Bachelor of Science (B.S.) degree in Computer Science and a Bachelor of Arts (B.A.) degree in Communications. He is married and has a daughter. Benjamin is enthusiastic about his work with the foundation that he and his wife have started:

"Although still in its infancy, the foundation is showing VERY promising signs of being very successful. I'm thrilled because I'll be helping people with a problem that is too often overlooked."

Benjamin's advice is, "Never let 'good enough' be 'good enough.' Go beyond others' expectations and your own!"

Dana, 29, attended a four-year college right out of high school, but dropped out during freshman year. Dana has now been employed with the same company for more than six years: "I have grown up with the impression that neither my parents, nor support staff are always going to make decisions for me, so I have to take responsibility of determining what things suit me best...I worked with OVR [Office of Vocational Rehabilitation] for a few years on finding employment opportunities for me, and we were getting nowhere until I started communicating with...various people myself. If I didn't take charge, I would probably be still traveling to the OVR office discussing it, and no real progress would have been made."

Jennifer is 28. She attended a four-year college and received a B.A. in Recreational Therapy. She worked in that field for a few years before returning to school to pursue a graduate degree in Social Work. Jennifer reported that her job searches were sometimes grueling, but paid off in the end. She wrote that she once applied for over 80 jobs before landing one. She reported, "I DO wind up with fantastic jobs always. And I am a dedicated employee. [It] just takes time and keeping a positive mindset." Her advice for others includes:

"Find something you are good at and like to do.... Be kind, be nice, be respectable, be responsible for your actions, laugh at yourself, work hard and it will pay off. Keep trying even if you have applied for every job out there. Put yourself out there and have fun. Enjoy life."

Crystal, 26, received her Associate in Arts (A.A.) degree from a local community college and then transferred to a large research university where she is pursuing a degree in

anthropology. She left the focus group in the fourth week because of the heavy workload of her classes.

Rebecca, 24, is currently attending a community college. She hopes to someday open her own business. She wrote, “One very important thing to remember is that in college you are your biggest self-advocate.”

Brad is 22. He is a senior at a large research university, majoring in political science. He has worked in the technology field full-time during the summers and part-time during the school year. He advises, “Just stand up for yourself...Don’t let people tell you no just because you have a disability.”

Michael is 21. He is a senior at a four-year college. He plans to go to graduate school and pursue a career in school counseling. His advice is, “Be assertive. Don’t settle for less than you deserve. Don’t believe what doctors say. Put yourself out there. Enjoy being alive.”

Will is 21 and is in his first year of community college. He reminds students to keep in mind the social aspects of college when researching schools by visiting a campus to see “how people interact with each other outside of class...see what the social setting is as well as the academic.”

Discussion

The individuals recruited for this study had participated in a variety of DO-IT activities focused on supporting the academic and career success of middle school, high school, and college students with disabilities. Given their involvement in these activities, as expected, the focus group members had greater participation and persistence in postsecondary education than averages reported in the literature for students with significant disabilities. Five participants entered four-year colleges immediately after completing high school; four attended two-year community colleges. Of the four who initially attended community colleges, two later transferred to four-year schools; the other two are still community college students. One of the two who transferred to a four-year college dropped out without completing a bachelor’s degree; the other is a college junior. Of the five who went directly to four-year colleges, two earned bachelor’s degrees, two are college seniors, and one dropped out. One participant who left college without a degree has been successfully employed for several years.

Choosing a College

Primary reasons for choosing a school reported by participants in this study were very much like those of other college students — location, cost, and availability of programs. Campus access and academic accommodations were also important considerations. In addition, issues of independence and family support carried great weight for these individuals; young people who relied on family members to provide personal care assistance had to make new arrangements when moving away from home. High school graduation and the move toward post-secondary education is an important step in the maturation of all adolescents. For individuals with

significant disabilities, asserting independence from one's family can have multiple layers of complexity.

Academics and Accommodations

The students reported that their academic experiences were not without challenges. Some felt that their high school classes had not prepared them well for college. In some schools, academics took a back seat to independent living skills. Once in college, some participants reported difficulties getting the accommodations they felt they needed in order to be successful. Their experiences highlight the critical importance of the development of self-determination, including self-advocacy skills, by students with disabilities who plan to pursue college.

Support and Self-Determination

Participants in the focus group cited family members as consistent and critical supports in their pursuit of postsecondary education. Participants also reported that individual teachers who took on a mentoring role were important in helping them develop the confidence they needed to pursue postsecondary education. They cited participation in DO-IT activities as a factor in their success. These results are consistent with earlier work suggesting that mentors, family support, and participation in a high quality transition program can help high school students who have disabilities develop the vision of a future that includes college and a career.

It is interesting to note that even when the researchers' questions concerned supports from others, participants often reported that it was by taking things into their own hands that they were able to overcome obstacles and move forward. Participants reported that they developed strategies to advocate for accommodations and to communicate effectively in both academic and social situations. The support they received from adults was often support for their own developing self-determination.

Outcomes

Participants demonstrated considerably higher levels of participation and persistence in postsecondary education than is typically reported for students with disabilities. However, participants who had pursued employment reported some of the same difficulties finding work that have been reported in the literature for this population. Those participants who were successful in finding paid employment did so primarily through networking, personal contacts, and volunteering.

Limitations

Caution should be exercised in generalizing the findings of this exploratory study. The individuals who were recruited for this study may not be typical of the population of individuals with mobility and speech disabilities; they all had plans to attend college, had participated in programs designed to support their academic and career success, and had ready access to mentors, computers, and the internet. In addition, those individuals who agreed to participate in the focus group may have chosen to do so in part because they had been successful; those who

chose not to participate may have had less positive postsecondary experiences. Furthermore, for many participants this was a retrospective study, and memory can be fallible.

Conclusions and Future Research

Participants in the reported study demonstrate that individuals with mobility and speech disabilities can successfully pursue postsecondary education when they have academic access, support, and the self-determination to pursue that goal. Yet, barriers remain. Elementary and high school educators need to recognize the role that expectations can play in limiting or expanding a student's academic achievement. Students with disabilities require and deserve equal access to challenging academic curricula. Teachers at all levels must learn how to make their classrooms and instructional practices accessible so that all students are challenged to take rigorous classes that prepare them for higher education and satisfying careers. Students with disabilities are the experts on their academic interests and must be consulted and supported as they make decisions about high-school classes and post-secondary plans.

Additional research is needed to identify factors that support the success of students with mobility and speech disabilities in post-secondary education as well as factors that contribute to the high college dropout rates among students with disabilities. What must be done to ensure that students with speech and mobility disabilities have full access to rigorous academic curricula in K-12 schools? What practices most effectively foster the development of self-determination? A longitudinal study tracking the experiences, opinions, and progress of students with disabilities as they pass through critical junctures toward a career would provide information of use to students, families, and educators. In addition, collecting information on students' college preparation and participation from parents and educators would expand on the findings. Reports on college participation and graduation rates of students with significant disabilities make it clear that there is much to learn and much to be done to support them in college and careers.

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Appendix A: Topics and Related Questions for Online Focus Group Participants

1. Career and academic interests

What academic or employment fields have you considered or pursued? Have these goals/interests changed over the years?

2. Early school experiences

In what areas did your elementary and high school classes prepare you for college? In what areas did they not prepare you?

3. Encouragement in setting goals

When you were in high school and beginning to think about your future, describe how specific people in your life did or did not encourage you to set high goals for yourself.

4. Internal characteristics

Think about a success that you had achieving a goal. What were your own internal characteristics that enabled you to achieve that goal?

5. Choosing a school

If you have attended college, how did you select the school(s) that you applied to and attended?

6. Difficulties and challenges succeeding at college

Did you experience challenges applying for, attending, or succeeding at college?

7. Personal relationships

What has been your experience in getting to know people and making friends at school or work? Has it been easy or difficult getting to know people?

8. Technology

What types of technology do you use at school or work? What difficulties, if any, have you had getting access to the technology you need or managing the technology that you use?

9. Finding work

If you are currently working, how did you go about finding your job? If you have tried, but not been successful in finding work, what experiences have you had in the search process?

10. Advice for others

What advice or strategies for success in college, work, and/or in adult life do you have for younger students who have disabilities similar to your own?

11. Final open question

What else would you like to tell us about your experiences that might help us better understand the factors that impact college and career success for students with disabilities?

