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Autism Training at a Small Liberal Arts College: Perceptions and Takeaways

While there has been some research about the intersection of autism spectrum disorder (ASD) and larger research libraries, less work has been done in other academic library settings. To assess librarians' knowledge of ASD, the authors administered an ASD training manual and subsequent survey to academic librarians at a liberal arts college library in the Southeast. The librarians found the training about ASD itself to be most valuable. Additionally, they gave positive assessments of their ability to serve students with ASD both at the individual and institutional levels. This suggests that librarians recognize the importance of serving this unique population.

Keywords: academic librarians; autism spectrum disorder; ASD; diversity, equity, and inclusion; DEI; equity, diversity, and inclusion; EDI; liberal arts colleges

Word count: 7,282

Shortened title: Autism Training

Introduction

The prevalence of autism spectrum disorder¹ (ASD) has increased from 1 in 150 children in 2000 to 1 in 54 children in 2016 (Centers for Disease Control and Prevention, 2020). This rise could be due to changes in diagnosing ASD, among other causes (Maenner et al., 2020). ASD is a neurodevelopmental disorder with two key components: “deficits in social communication and social interaction” and “restricted, repetitive patterns of behavior, interests, or activities” (American Psychiatric Association, 2013, p. 50). Examples of relevant behaviors include having difficulty maintaining eye contact, cultivating specialized interests in narrow topics, and having a strong need for routine (National Institute of Neurological Disorders and Stroke, 2020).

¹ This article uses “autism spectrum disorder” and “ASD” instead of “autism.” “Autism spectrum disorder” is the official terminology in the American Psychiatric Association’s (APA) Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5).

More high school students with ASD are matriculating to college than ever before (A. Anderson, 2018). However, these new college students often find themselves working through issues with time management, social skills, self-advocacy, and other areas crucial for independent living in a college environment (Hillier et al., 2020; VanBergeijk et al., 2008; White et al., 2011, 2016). Consequently, they have a graduation rate that is significantly lower than neurotypical students (White et al., 2016). The Americans with Disabilities Act (ADA) requires colleges and universities to make accommodations available to college students with disabilities (Southwest ADA Center, 2017), but many students with ASD have trouble asking for accommodations in the first place (Elias & White, 2018; Kim & Crowley, 2021). While there are some institutions of higher education that have specialized programs for students with ASD, most do not, including most liberal arts colleges. Despite a lack of specialized programs, with their small class sizes and individual attention from professors, liberal arts colleges may have some advantages for students with ASD, who often benefit from extra support (Elias & White, 2018; Hillier et al., 2020; Viesel et al., 2020).

Academic libraries and their librarians provide support for all students on the campuses they serve through collections and public services, including students with disabilities such as ASD. Project A+ out of Florida State University (FSU) has produced a training manual for academic library personnel that is designed to improve knowledge of ASD in a higher education setting, and it also contains concrete suggestions to improve aspects of academic libraries such as the library environment for this population (Everhart et al., 2018). Liberal arts college libraries and their patrons could potentially benefit from Project A+, but there is currently very little research on how these libraries serve patrons with ASD. This study assesses the knowledge, confidence, and attitudes of liberal arts college librarians toward serving college students with ASD after reading two chapters from the

Project A+ training manual, as well as these librarians' ideas for future programs and services for this population.

Literature review

The diversity standards

Cultural Competency for Academic Libraries (2012) by the Association of College and Research Libraries (ACRL) provide a set of standards and interpretations to guide academic library practice. Libraries at research universities are well represented in the literature (Andrade & Rivera, 2011; Baildon et al., 2017; Chen et al., 2018; Dewey & Keally, 2008; Edwards, 2015; Koury et al., 2019; Love & Edwards, 2009; Redd et al., 2020). However, other types of academic libraries appear less often, such as liberal arts college libraries, of which there are very few dedicated studies (Albarillo, 2018; Gilbert, 2016; Li, 2005; Winston & Li, 2000). Winston and Li (2000) found that the vast majority of liberal arts college library directors made some effort to recruit diverse candidates for librarian positions and also made an effort to increase diversity in their collections. However, over a third did not employ any diverse librarians at all (Winston & Li, 2000), a finding that surfaced again five years later (Li, 2005). Nonetheless, one study showed a positive correlation between the presence of a college diversity officer and the number of library diversity initiatives (Li, 2005).

Over a decade later, Gilbert (2016) found diversity efforts in liberal arts college libraries to be “a mixed bag” compared to similar efforts at research libraries (p. 530). While the majority of libraries surveyed engaged in some kind of student-focused diversity efforts, such as displays and cross-campus collaboration (Gilbert, 2016), more than 25% of liberal arts college libraries did not engage in any diversity initiatives at all (Gilbert, 2016). Not all diversity work, however, was explicitly public facing.

In one study, two technical services librarians at Vassar College worked to increase access to the library's Africana Studies collection (Berthoud & Finn, 2019). Ultimately, efforts to increase DEI in liberal arts college libraries go hand in hand with similar efforts at the institutional and consortial levels (Associated Colleges of the Midwest, n.d.; Associated Colleges of the South, n.d.; Council of Independent Colleges, 2019; Council of Public Liberal Arts Colleges, 2020; Five Colleges of Ohio, 2018; Oberlin Group of Libraries, 2020).

Nonetheless, the literature on disabilities in academic libraries is wide ranging and includes research on topics ranging from assistive technology (Clossen & Proce, 2017; Graves & German, 2018; Ostergaard, 2015; Providenti & Zai, 2007a, 2007b; Sorrell et al., 2017; Willis & O'Reilly, 2018; Yang et al., 2020) to serving patrons who are deaf or hearing-impaired (Cheney, 2020; Getts & Stewart, 2018; Gu, 2006; Masuchika, 2018; Riley, 2009; Saar & Arthur-Okor, 2013). Discussion of invisible disabilities and academic libraries, such as learning disabilities, has become increasingly frequent (Clossen & Proce, 2017; Conley et al., 2019; O'Neill & Urquhart, 2011; Schomberg & Highby, 2020; Yang et al., 2020). However, this discussion often takes a broader approach, covering multiple types or categories of disability; some disorders, such as ASD, have only recently become a primary or sole focus of study in their own right (Gelbar et al., 2014).

To study ASD in an academic library setting, authors have employed a diverse range of research methods. While interviews are relatively common (Pionke, 2017; Pionke et al., 2019), some studies have employed other methods such as think-aloud protocol (Everhart & Escobar, 2018), content analysis (Anderson, 2016, 2018), and quasi-experimental design (Everhart & Anderson, 2020). There has also been an increased emphasis on capturing the voices of students with ASD as opposed to those of parents, caregivers, teachers, and other

stakeholders (Anderson, 2018; Everhart & Anderson, 2020; Everhart & Escobar, 2018; Pionke, 2017; Pionke et al., 2019).

Anderson (2018) found that students with ASD highly valued the library as a quiet environment and as an escape, but they disparaged presumably neurotypical students for being “wild” and not committed to their studies (Anderson, 2016, p. 91). Unfortunately, another study, which included students with ASD along with several other invisible disabilities, found that the respondents were often afraid of bothering library staff as well as not being sure how to ask for help (Pionke, 2017). However, not all studies depicted students with ASD as totally distinct from neurotypical students; one study found that both types of students struggled with certain wayfinding tasks, such as locating a print or electronic journal article (Everhart & Escobar, 2018). Everhart and Escobar (2018) also found that the participant with ASD was very open and friendly with staff in contradiction to the stereotype of students with ASD as awkward and withdrawn. Ultimately, there are several things academic libraries can do to better serve this population, which may include more effective signage, more inclusive handouts, collaborating with support offices around campus, and intensive training for staff (Pionke, 2017; Pionke et al., 2019; Shea & Derry, 2019a, 2019b).

There are two key theories concerning disabilities such as ASD. The medical model of disability focuses on the individual’s need for treatment and to adapt to the environment, while the social model of disability advocates for society’s need to adapt to the needs of the individual (Schomberg & Highby, 2020). The idea of neurodiversity both incorporates from and responds to these models, and it postulates that conditions such as ASD, attention deficit hyperactivity disorder (ADHD), and dyslexia are not pathologies but rather are part of natural variations in neurological makeup, just like visible traits such as height and skin color vary naturally (Clouder et al., 2020; Kapp et al., 2013; Nyhan, 2018). The framework of neurodiversity faces criticism from both the medical and social perspectives (den Houting,

2019) and is sometimes seen as including “high functioning” individuals with ASD while excluding “low-functioning” ones (Leveto, 2018). Nonetheless, this framework can be a helpful way to share the needs and perspectives of people with ASD with neurotypical stakeholders (Ne’eman, 2017).

ASD is often comorbid with a range of mental health conditions, such as depression and anxiety, at all age levels (Hammond & Hoffman, 2014; Hoover & Kaufman, 2018; Lever & Geurts, 2016; Mayes et al., 2011; van Steensel & Heeman, 2017). A systematic review found pooled estimates of “*current* anxiety and depression of 27% and 23%, respectively... [and] pooled lifetime estimates of any anxiety (42%) and depression (37%)” for adults with ASD (Hollocks et al., 2019, p. 568). A more recent review found pooled prevalence estimates of 20% and 11% for depression along with estimates for other conditions such as ADHD (28%) and bipolar disorder (5%) (Lai et al., 2019).

Among college students with ASD, anxiety is particularly prevalent, especially social anxiety, as well as depression (Anderson, 2018; Capriola-Hall et al., 2021; Gobbo & Shmulsky, 2014; VanBergeijk et al., 2008; White et al., 2011). Besides depression and anxiety, college students with ASD not only had issues with general mental health but also physical health (McLeod et al., 2021). Along the same lines, mental health was a major contributor to students leaving college without completing their degree (Cage & Howes, 2020)

While prevalence rates of ASD among college students are unclear, White et al. (2011) estimated a range between 0.7 percent and 1.9 percent, while the College Autism Network (Cox, 2017) postulated that 1 in 225 first-year college students have ASD. However, only 41% of college students with disabilities such as ASD completed their degrees across institution type (Newman et al., 2011, p. 47). There are a range of factors that contribute to

this attrition, including difficulty transitioning to higher education, mental health difficulties, and low socioeconomic status (Anderson, 2018; Gelbar et al., 2014; Greenberg, 2020).

Primary and secondary students with ASD are potentially eligible for an individualized education program (IEP), which is a formal plan that allows parents, teachers, and other stakeholders to work together to ensure a child's educational success (Christle, 2018; Christle & Yell, 2010; Shea & Derry, 2019a). However, college students with ASD do not have IEPs and are usually responsible for requesting accommodations on their own from their campus's disability support office, and this process is governed by the ADA (Brown, 2017; Elias & White, 2018; Southwest ADA Center, 2017). Unfortunately, students with ASD often struggle with self-advocacy (Anderson, 2018; Capriola-Hall et al., 2021; White et al., 2011, 2016), and due to the Family Educational Rights and Privacy Act (FERPA), instructors and other key stakeholders on campus are often unable to communicate with one another about a particular student (Cox et al., 2021).

College students with ASD face several other challenges. While many students receive a diagnosis of ASD as children and teens, some matriculating students may not have this diagnosis and thus cannot request ADA accommodations (Cox et al., 2017; White et al., 2011). Nonetheless, even if they can do so, the transition from secondary to tertiary education can be jarring (Gelbar et al., 2014; Shea & Derry, 2019b; VanBergeijk et al., 2008; White et al., 2016), as students often have to give up valuable service providers such as guidance counselors, psychotherapists, and so forth (Hillier et al., 2020).

Another issue is that familiarity with ADA accommodations in general and accommodations for ASD specifically can vary widely among faculty and staff (Cai & Richdale, 2016; Kim & Crowley, 2021; Shea & Derry, 2019b; White et al., 2016). This is particularly true of classroom instructors, who may not have the training and skills to

maximize learning outcomes for students with ASD even if they otherwise follow requests for accommodations to the letter (Anderson, 2018; Cox et al., 2021; Gobbo & Shmulsky, 2014). Finally, ADA accommodations are primarily academic in nature. However, multiple studies have found that students with ASD also struggle with non-academic (or not exclusively academic) issues such as mastering time management, navigating friendships and romantic relationships, adjusting to highly varied class schedules, or otherwise acclimating to independent life on a college campus (Elias & White, 2018; Gelbar et al., 2014; Gobbo & Shmulsky, 2014; White et al., 2011, 2016).

While programs vary widely between institutions, some colleges and universities have gone beyond the traditional ADA accommodations model to help students more effectively with ASD. The College Autism Network maintains a list of several dozen institutions that have some kind of ASD student success program beyond the basic ADA accommodations (McDermott et al., 2021). Some institutions have adopted a peer mentoring program (Duerksen et al., 2021; Gelbar et al., 2014; Hillier et al., 2020; Trevisan et al., 2021). Others have used a variety of group settings to reinforce social skills and provide guidance on what students with ASD should do in various social situations (Cox et al., 2021; Viezel et al., 2020). Institution size can also make an impact. Smaller institutions can be very helpful to students with ASD, as they often benefit from increased attention and smaller class sizes, but training and supports may not be as extensive as at larger institutions (VanBergeijk et al., 2008). Conversely, larger institutions can be difficult for students to navigate, but they offer a wider range of classes, activities, clubs, and so forth (VanBergeijk et al., 2008).

While campus initiatives for students with ASD encompass a wide range of institutional profiles, (McDermott et al., 2021), liberal arts colleges are mostly absent from this list, and studies are few and far between. An outreach program at Edgewood College for students with “significant” disabilities, such as ASD with an intellectual disability, improved

outcomes in social skills, independence, and other areas (Hafner, 2008; Hafner et al., 2011). A more recent study found that four students with ASD who matriculated to four Midwestern liberal arts colleges had a mixed experience with supports offered, just like their counterparts at other types of institutions (Bishop, 2019). There is one key liberal arts institution that is worth noting: Landmark College, in Vermont, exclusively admits students with ASD, learning disabilities, and ADHD (Landmark College, n.d.). Landmark College is the center of a long-running research collaboration on whose authors have published on topics such as best teaching practices (Gobbo et al., 2018; Gobbo & Shmulsky, 2014; Shmulsky et al., 2019), the transition process (Shmulsky et al., 2015), and first-year performance (Shmulsky et al., 2017) for students with ASD.

Method

This study addresses the following research questions through qualitative and quantitative methods:

RQ1: How do librarians and library adjacent employees at a liberal arts college feel about learning about key characteristics of ASD in a higher education setting after completing a training manual?

RQ2: How do librarians and library adjacent employees at a liberal arts college feel about serving students with ASD after completing a training manual?

The authors used purposive sampling to identify potential respondents at a liberal arts college library in the Southeastern United States. They developed a Qualtrics mixed-methods, web-based survey, which consisted of four multiple-choice questions and 11 free-response questions. Both authors' institutional review boards approved the survey instruments and protocols.

The authors sent an e-mail inviting prospective respondents to participate in the study. These prospective respondents consisted of three groups: full-time librarians (6), library staff (15), and non-library employees in related areas such as instructional design (7). It is worth noting that all members of the sample have physical offices or cubicles within the library building. Consequently, there has historically been frequent interaction between all three groups of employees.

The authors asked participants to read the first two chapters of the *Project A+* training manual (Everhart et al., 2018), designed to help academic library employees better serve students with ASD. Chapter 1, About Autism, “provides information about ASD, life with ASD on college campuses, and why understanding it is important for librarians and library staff” (4). Chapter 2, The Library Environment, “explores the importance of the library environment and how, by understanding and organizing the environment, you can support students with autism” (4). The authors of the *Project A+* training manual developed it in collaboration with Florida State University (FSU), a public research university, so this study’s authors wanted to apply the manual to a different kind of educational institution: a private liberal arts college.

After reading the chapters, participants were invited to complete the survey. The first part of the survey assessed respondents’ comfort with the content of the chapters using Likert scales. The second part of the survey solicited open-ended feedback, inviting respondents to share their takeaways and opinions about serving students with ASD. The survey was developed from *Project A+* materials: a coaching session evaluation instrument and guiding questions originally prepared for a focus group. Both sets of material were originally used to make sense of librarians’ experiences after receiving training about serving students with autism in the academic library.

Both quantitative and qualitative data were collected. Responses to Likert scale questions were analyzed through descriptive statistics using the Qualtrics software through which it was collected. Text responses to open ended questions were analyzed by inductive coding, grouping by emerging themes. Categories arose from the data itself. With three responses per open ended question, the researchers were both able to read, take notes, code, and compare through an iterative process of analysis.

As noted, out of 28 potential responses, the authors recorded three responses. All three respondents indicated that they were full-time librarians, so the study does not capture the views of library staff or related non-library employees. The authors believe this low response rate stems from the onset of the COVID-19 pandemic. At the time of the survey, the campus had just recently transitioned away from in-person to remote learning.

Results

Results are presented according to the research question. First, how participants feel about the Project A+ training itself; and second, how they feel about working with students with ASD after completing the training manual.

Respondent views of Project A+

The respondents agreed that learning about ASD itself was the most valuable part of the experience. Participants also described takeaways after completing the training and offered suggestions for making the training even more effective.

Value of Project A+ training

In response to the Likert scale question “(h)ave your skills/knowledge increased as a result of using the Project A+ training manual,” all three participants chose “strongly agree.”

Additionally, participants felt that they were provided with enough information. All responded to the question “(d)o you feel like the information presented in Project A+ was enough?” with “strongly agree.” One respondent appreciated learning about “visual, spatial, and auditory cues and obstacles for neurodiverse individuals.” Another was glad to get a more comprehensive view of ASD. They were eager to learn more about the topic, wondering how the library and the campus’s disability services office might partner together to better serve this population. Another respondent expressed the desire to learn more about neurodivergent students’ experiences in academic libraries.

Training takeaways

From the training manual, the respondents had several takeaways about serving students with ASD. These included: the idea that ASD is an invisible disability, that some neurotypical individuals share characteristics with neurodiverse individuals, and that manifestations of ASD differ between individuals. One respondent mentioned that “there is something librarians can do to help students deal and overcome the challenges in learning.”

Suggestions for improvement

Finally, the respondents had some suggestions for making the training even more effective. While one respondent was happy with the training as is, another expressed the desire for the training to be paired “an in-person discussion with all library employees led by a knowledgeable facilitator.” The last respondent mentioned being open to both in-person and online modalities.

Respondent views on working with students with ASD

After completing the training, participants also described what they learned and planned to put into action for serving students with ASD. They described skills and strengths, areas for

improvement, barriers, and potential for moving forward with the new ASD knowledge they gained.

Participant and organization skills and strengths

Respondents opined that they had their own strengths and skills to effectively serve patrons. Two respondents mentioned patience, while others mentioned, “Good listening skills, responsive to needs, [and] calm.” They also agreed that the library itself had its own strengths, both as a building/physical space and an institution/organization. Respondents pointed out that the disability services department had its offices within the library building and saw that as a strength, saying that it “provides a great opportunity for close collaboration and partnership to better serve our academic community.” Concerning the building itself, they pointed out signage and “a variety of spaces within a small building” as assets for students with ASD. Finally, they identified the library as a “service organization” devoted to “service excellence,” the college’s program for promoting excellent customer service.

Areas for improvement

Respondents also identified areas of improvement both at the individual and building/organizational levels. On an individual level, one respondent wanted to work on teaching methodologies to be more inclusive of neurodiverse students, while another wanted to improve promotion and outreach efforts. On a physical/building level, the respondents mentioned the pandemic as a possible area of opportunity, one mentioning the new contactless pickup lockers being installed outside the library building as something that could benefit students with ASD as well.

Barriers

However, solutions to better serving students with ASD were not necessarily straightforward. One respondent indicated that these efforts would require “strategic rethinking, strong

administrative support and large institutional commitment” at the organizational level. The respondents at times conflated these categories, identifying signage, “flexible seating options,” and “alternative model[s] of service delivery” all as areas for improvement. In addition to identifying areas of improvement, the respondents also identified barriers to effectively serving students with ASD. In addition to the COVID-19 pandemic, the respondents identified “a diverse population” and the need to “secure institutional support.”

Opportunities

Finally, the respondents identified several ways for them to move forward in light of what they learned about ASD. One respondent mentioned a librarian on staff with ASD, who they would like to have help with strategic planning in serving this population. Another felt confident enough to be “leading a plan to reach out to ASD students.” Finally, they agreed that raising awareness about this issue was essential.

Discussion

Overall, the respondents had a positive view of the Project A+ training manual and its content. They strongly agreed that their knowledge of ASD increased after reading the manual and that the manual was sufficiently comprehensive. However, they were slightly less confident in their ability to take the manual’s content and apply it to their everyday jobs.

Participants felt that learning about ASD was perhaps the most valuable aspect of the training. This finding is important, as other librarians at liberal arts colleges may find similar value in such education. While the Project A+ manual is one avenue for education, there are many other opportunities for librarians to access basic information about ASD. See, for example resources provided through the Autistic Self Advocacy Network (ASAN) and the

Autistic Women and Nonbinary Network (AWN) (Autistic Self Advocacy Network, n.d.; Autistic Women & Nonbinary Network, n.d.). This is of course just a start; after understanding the basics of ASD, librarians would do well to then understand how to apply this knowledge in their own environment with their own students. Project A+ is freely accessible, and would be one place to further their knowledge; other training specifically designed for librarians may be taken through sources such as Project ENABLE and their Targeting Autism modules (Project ENABLE, n.d.). Indeed, participants noted that they would also be interested in additional training to supplement what they learned from the training manual.

Despite the low response rate, the findings may be used to suggest that some librarians at liberal arts colleges who receive education about ASD are inspired to learn more about the topic. Participants described how they would move forward with their new knowledge, potentially creating partnerships and embarking on more training. Training opportunities should be made available for librarians about ASD, as such knowledge may lead to awareness of the need for improving services for members of this study population. If even three staff members are inspired to learn more and tailor services, the library experiences of students with ASD may be improved.

Asking participants about their plans for action might inspire such actions to actually take place. Reading a training manual is one step; asking librarians what their plans for action after reading said manual is another. In this study, participants were able to clearly identify their own, and their library's strengths and limitations as well as potential for forward momentum. Library administrators interested in implementing improved services and supports for students with ASD can take results from this study to generate similar results. After allowing librarians to learn about ASD, through whatever training materials or mechanisms available, follow up by asking about specific plans based on knowledge learned.

Of course, barriers were identified. It is often not enough for one librarian to desire a shift in services; this also must be supported financially and by the administration. However, education is the first step, as an educated staff is likely more apt to provide more appropriate customer service.

Limitations

This study was affected by COVID-19, with calls for participation coinciding with the onset of the pandemic. The low response rate might be due in part to this, with librarians and related staff shifting services online and otherwise responding to the stress of the global situation. Staff members who initially indicated interest did not respond to multiple requests for participation in the survey, and the three responses received came only after email reminders to potential participants. Of those members of the population recruited for participation, only full-time librarians ultimately participated in this study. Perhaps librarians had a vested interest in the study, as it was rooted in library services. However, all of those who were invited had a role either working within or in conjunction with the library, and/or in working with students with disabilities.

Conclusion

ASD is prevalent in the United States (Maenner et al., 2020), and this is reflected on college campuses as well (White et al., 2011). Librarians, as service providers, must be educated and knowledgeable about how to serve members of this student population. In this study, librarians at a small liberal arts college were interested in learning more about ASD and identified actionable measures to improve services after independently reading a training manual.

Few studies specifically examine the experiences of students with ASD at liberal arts colleges, though these students are present, and perhaps more prevalent on campus than ever

before. If even a few librarians at an institution are interested in learning more to better support and serve these students, their college experience may be greatly improved. Results from this study indicate that there is interest, and that librarians should be made more aware of training and education opportunities that exist, perhaps increasing knowledge and library services as a result.

Disclosure statement

No potential conflict of interest was reported by the authors.

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