Identifying Challenges and Benefits of Online Education for Students with a Psychiatric Disability

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Abstract

Students with a psychiatric disability (PD) represent a growing demographic on college campuses nationwide. Concurrently, the ubiquity of online learning has served as a powerful accessibility tool for students with a PD to obtain postsecondary education and may possess certain benefits for this population over traditional classroom learning. This study collected surveys from 1,665 college students taking online courses at a large northeastern public university in the Spring 2015 semester. We assessed the frequencies of response selections by students with a PD when answering questions related to why they chose to take an online course, and the benefits and challenges associated with online courses. Additionally, we conducted chi-square analyses comparing the responses of students with a PD to those without a PD to assess between group differences. Results indicated similarities between the groups regarding the benefits of online learning as well as reasons for choosing to enroll in an online course. However, there were differences in perceived challenges to online learning. Specifically, students with a PD endorsed the challenges of time management, difficulty concentrating, and difficulty navigating the course website at a higher rate than students without a PD.

Keywords: online learning, psychiatric disability, postsecondary education

For people with a psychiatric disability (PD), postsecondary education can serve as a critical component to living a fulfilling and independent life. Attaining higher education helps to build human capital and contributes to higher employment rates and wages for all people (Borjas, 2005), but may be of particular importance for those with a PD (Gao, Schmidt, Gill, & Pratt, 2011). People with a PD have lower rates of full-time employment, higher rates of being out of the labor force, and lower rates of pay when working compared to those without a PD; but education is strongly associated with positive employment outcomes among people with a PD and provides an important opportunity (Luciano & Meara, 2014).

It is concerning then that students with a PD are at higher risk for low educational attainment (American College Health Association, 2012; Hunt, Eisenberg, & Kilbourne, 2010; Hysenbegasi, Hass, & Rowland, 2005; Waghorn, Still, Chant, & Whiteford, 2004) and drop out of college at a higher rate than their peers without a PD (64% and 41%, respectively; Breslau, Lane, Sampson, & Kessler, 2008; Ginder & Kelly-Reid, 2013; Gruttadaro & Crudo, 2012; Hunt et al., 2010). Psychiatric disabilities account for 3.2 to 11.4% of college non-completion (Mojtabai et al., 2015). Mental health problems and severity have been associated with decreases in academic functioning and lower grade point average (GPA; Andrews & Wilding, 2004; Bruffaerts et al., 2018; DeLuca, Franklin, Yueqi, Johnson, & Brownson, 2016; Eisenberg, Golberstein & Hunt, 2009). Decreases of between 0.17 and 0.49 points in GPA have been reported depending on the psychiatric diagnosis; this decrease is associated with a drop in academic level from the 50th percentile to the mid-30th percentile (Bruffaerts et al., 2018; Eisenberg et al., 2009; Hysenbegasi, Hass, & Rowland, 2005). Despite these poor outcomes, people with PD are on college campuses working toward their degrees. Students with a PD represent one of the largest disability sub-groups on college campuses (Government Accountability Office, 2009; Kupferman & Schultz, 2015).

Individuals with a PD can, as part of their psychiatric condition, experience a variety of symptoms and

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functional limitations that may negatively impact a student's ability to be successful in school. Cognitive impairments related to dysfunction in attention, short and long-term memory, processing speed, impaired recall, and general motor speed are often present in people with a PD and are listed as a diagnostic symptom for several psychiatric conditions (American Psychiatric Association, 2013; Bora, Yucel, & Pantelis, 2010; Castaneda, Tuulio-Henriksson, Marttunen, Suvisaari, & Lonnquist, 2008; Crow, 2008; Grabinger, 2010; Johnsen & Asbjornsen, 2008; LaGarde, Doyon, & Brunet, 2010; Malhi et al., 2007; McClintock, Husain, Greer, & Cullum, 2010; Tempesta et al., 2013). Impairments related to executive functioning are particularly relevant to academic performance, and consistently present among people with a PD (Keefe & Fenton, 2007; Wexler & Bell, 2005). Response inhibition, verbal and visual working memory, procedural memory, and planning are the specific areas of executive functioning that are most frequently impaired in someone with a PD (Altshuler et al., 2004; Bora et al., 2010; LaGarde et al., 2010; Snyder, 2013; Snyder, Kaiser, Warren, & Heller, 2015; Tempesta et al., 2013).

Social abilities may also be impacted by psychiatric disabilities (PDs; Grabinger, 2010), including deficits believed to be related, at least in part, to problems with social cognition (Bora, Bartholomeusz, & Pantelis, 2016). These can manifest as impaired social adjustment, difficulty inferring and reasoning about others' intentions, and bias toward negative interpretations of emotions (Bora et al., 2016; Buhlmann, Wacker, & Dziobek, 2015; Ladegaard, Larsen, Videbech, & Lysaker, 2014; Loi, Vaidya, & Paradiso, 2013; Savla, Vella, Armstrong, Penn, & Twamley, 2013; Schreiter, Pijnenborg, & aan het Rot, 2013; Weightman, Air, & Baune, 2014). For students these can translate into challenges getting along with others, reading social cues, difficulty approaching instructors, and struggles accepting and responding to negative feedback and interpreting criticism (Rickerson, Souma, & Burgstahler, 2004).

Other symptoms of PDs and associated medication side effects can create additional challenges such as drowsiness, blurred vision, hand tremors, and difficulty initiating contact (Rickerson et al., 2004). While some may assume these types of impairments are only present in individuals with the most severe types of PDs, such as schizophrenia (Keefe & Fenton, 2007), they are actually also present in conditions more commonly found on college campuses, including bipolar disorder, major depression, generalized anxiety disorder, post-traumatic stress disorder, obsessive compulsive disorder, and social anxiety (Bora et al., 2010; 2016; Buhlmann et al., 2015; Castaneda et al., 2008; Johnsen & Asbjornsen, 2008; Ladegaard et al., 2014; LaGarde et al., 2010; Loi et al., 2013; McClintock et al., 2010; Malhi et al., 2007; Ritter, Bruck, Jacob, Wildgruber, & Kreifelts, 2015; Savla et al., 2013; Schreiter et al., 2013; Snyder, 2013; Snyder et al., 2015; Tempesta et al., 2013; Weightman et al., 2014). There are also indications that these impairments may persist even when psychiatric symptoms remit, suggesting a more chronic underlying dysfunctional cognitive condition, although these findings are inconsistent (Air, Weightman, & Baune, 2015; Altshuler et al., 2004; Kim, Park, Shin, & Kwon, 2002; Roh et al., 2005).

In addition to the aforementioned impairments, students with a PD may not access disability services that could be helpful to addressing barriers. Students with a PD are not always knowledgeable about disability services. Unlike students with some other disabilities, students with a PD often begin experiencing symptoms in college and therefore do not have previous experience with these kinds of accommodations or supports (Belch, 2011). They may not even be aware that they could qualify for disability services (Collins & Mowbray, 2005). Additionally, students may be concerned about the impact of disclosing their disability and the associated stigma (Collins & Mowbray, 2005; Keefe, 2007; Olney & Brockelman, 2003).

In the past, disability service providers may have felt unprepared to provide support to students with a PD (Unger, 1991), but efforts have been made to identify functional limitations and associated accommodations for students with a PD taking classes on campus (Collins & Mowbray, 2005; National Council on Disability, 2017; Rickerson et al., 2004; Weiner & Weiner, 1996). When students with a PD are provided with effective services and supports they are more likely to be successful (Kiuhara & Huefner, 2008; Salzer, Wick, & Rogers, 2008). Far less is known, however, about how to support students with a PD in the online learning environment.

Overall, the prevalence of online courses has grown substantially in recent years, with a survey of college and university presidents indicating that 77% of their institutions offer online courses (Parker, Lenhart, & Moore, 2011). Twenty-eight percent of all students report taking at least one online course, representing a continued growth rate for distance education enrollment (Allen, Seaman, Poulin, & Straut, 2016; U.S. Department of Education, 2016). Online education is appealing to schools because of its cost effectiveness (Mehrotra, Hollister, & McGahey, 2001) and its ability to reach students who are not local,

are nontraditional students, or require a high level of flexibility (Denton, 2001). Similarly, online education is beneficial for students who may previously have been limited by physical location and distance from a college or university, restricted transportation options, and lack of schedule flexibility. Additionally, online education increases the availability of course and program options (Grabinger, 2010).

The literature related to accommodations in online education for students with physical disabilities is extensive; it exists in a limited way for students with cognitive impairments and is just emerging for students with a PD (Keeler & Horney, 2007). It is important for us to develop a better understanding of the experience of students with a PD in the online environment in order to ultimately better support them in their educational efforts. This is particularly true as online education may offer benefits of particular interest to students with a PD as it may help address specific challenges they experience. For example, the asynchronous format that is common with online learning may allow students with a PD more time to process the information provided by the professor, as well as more time to formulate responses to questions (Banerjee & Brinckerhoff, 2002). Additionally, students who experience social anxiety related to their condition do not have to place themselves in the in-person classroom environment that may exacerbate symptoms. Furthermore, students who take medications to manage their PD may be able to minimize the impact of side effects more effectively by scheduling school and study time to coincide with their peak functioning during the day (Mowbray, Bybee, & Collins, 2001).

It is also possible that online education may pose unique barriers for students with a PD based on associated symptoms and functional impairments. Challenges may result from the heavily visual and written mediums used in online courses for students with receptive and expressive language impairments. Additionally, the lack of visual and audio input can make it difficult for students to interpret the intentions and emotional context of their professor and peers' communication. This can lead to difficulty developing relationships with professors and peers, potentially leading to a lack of important academic support. Asynchronous learning environments can easily become confusing and overwhelming without a linear presentation of materials. Executive functioning impairments can also make following written directions and multi-step instructions challenging (Banerjee & Brinckerhoff, 2002). Deficits in executive functioning can also lead to difficulties with problem solving and lack of persistence in resolving technical issues that may arise from the online environment, such as broken web links and other problems related to inaccessible content. Challenges with memory can make navigating websites difficult, causing the student to forget where they began and how to navigate further (Rowland, 2004).

These potential benefits and challenges of online education for students with a PD are largely speculative due to the limited empirical work in this area. To determine what supports are needed to help facilitate the success of students with a PD in online education, these benefits and challenges need to be explored. To this end, the current survey research was conducted to assess, from the students' perspective, reasons for enrolling in an online course, the benefits of online courses, and the challenges of taking an online course. This study is intended to be a modest initial step toward understanding the experiences of students with a PD in postsecondary online education. We have also presented a comparison of the responses of students with a PD to those without a PD as we anticipated that a reasonable follow-up question, after reviewing the answers of students with a PD, would be, "Are these responses similar to or different from students without a PD?"

Method

Participants

Participants were recruited from a large public northeastern university. This university ranks highly in terms of socioeconomic, geographic, and ethnical diversity. It has campuses in both urban and suburban locations and has a large online presence. This high level of diversity helps to ensure that a wide range of students were invited to participate in this study. One thousand, six hundred and sixty-five students completed the survey (response rate of 10.8%). Of the total participants, 286 (17.2%) self-reported having a diagnosis of a PD. The majority of participants were female (75%) and had at least some experience with online education prior to the current semester. The full range of years of education was represented, as were the areas of study concentration (see Tables 1 and 2). The overall average age of participants was 26.22 (SD = 9.03), with students with a PD averaging 27.34 (SD = 9.11) years old and those without a PD averaging 25.98 (SD = 9.0) years old. Among students who indicated they had been diagnosed with a PD, the most commonly reported diagnoses were depression (68.2%) and anxiety disorders (57.7%), followed by eating disorders (12.6%), obsessive-compulsive disorder (9.4%), bipolar disorder (7.3%), and schizophrenia or schizoaffective disorder (1.4%). It

should be noted that students had the option to report more than one PD. Participants reported using a variety of online Learning Management Systems (LMS) affiliated with the university to access course content, including Pearson eCollege, Sakai, Moodle, Canvas, and Blackboard.

Procedure

Recruitment. Students enrolled in online courses during the Spring 2015 semester were recruited via electronic communication. Potential participants were identified by the university's registrar, who used enrollment codes to identify all students enrolled in at least one online, for-credit course that semester. At the end of March 2015, the principal investigator sent to the identified students (using their university email addresses) an email that contained a brief explanation of the study, an invitation to participate, and a link to the informed consent and research survey. The link redirected participants to REDCap, a secure web application used by research institutions for the purpose of securely administering surveys and safeguarding confidential participant data.

After reading an overview of the study and providing informed consent, participants were administered the survey through REDCap. There were no exclusionary criteria for this study. Participants were given the option to provide their personal information in order to enter a random drawing to receive one of two $50 Visa Gift Cards. This personal information was not linked to their survey responses. Two follow-up emails were sent (following the initial study announcement) to remind students of the opportunity to participate. Via email, the principal investigator answered all questions and concerns raised by potential participants. The University's Institutional Review Board approved this study.

Survey. The survey contained 20 multiple-choice questions and was designed specifically for this study (see Table 3). The survey asked: two demographic questions related to age and gender; five questions related to the presence of a disability, services to treat the disability, impact the disability has had on passing traditional/in person courses and online courses, and registration with campus disability services; and four questions about the student's field of study, year in school, experience with online learning, and current learning management system (LMS). The remaining questions addressed the student's main reason(s) for choosing to enroll in an online course, the benefits the student has experienced from being in an online course, and the challenges the student has experienced from being in an online course. The response options students could choose from to indicate reasons for choosing to enroll, benefits of online courses, and challenges of online courses were developed by the authors and informed by the literature on cognitive and social impairments related to PDs, input of disability service providers, students with PDs, and providers of Supported Education services to individuals with PDs. Due to the very limited research available specific to postsecondary education for students with a PD in online courses, expert experience had to be the primary basis for response options. Initial response options were drafted and reviewed by an expert provider and researcher in Supported Education.

For each of the questions of primary interest (i.e., reasons for enrolling, benefits, and challenges) participants were asked to select all of the response options that applied to their experience and then to identify, of all of the options that applied to them, which of those responses was the single most important factor. By asking the questions in this manner we were able to assess all of the responses that were applicable to the student, but then also identify which of those responses was most critical.

Data Analysis

Independent samples t tests and chi-square analyses were used to assess differences in participant demographics and educational experiences at baseline between those who reported being diagnosed with a PD and those who did not. Descriptive analyses were conducted to compute frequencies of student responses. Chi-square analyses were used to assess differences in the frequency distributions of responses to survey questions between students with and without psychiatric disabilities. Parametric statistics were originally planned for this analysis, but due to the non-normal distribution of the data, nonparametric statistics were used.

Results

There were baseline differences in age, gender, year in school, and level of experience with online courses. Students with a PD were older than those without, $t(1663) = -2.31$, $p < .05$; there were more males without a PD and more females with a PD, $\chi^2 (2) = 15.77$, $p < .001$; a greater proportion of students without a PD were in their first or second year of education, while more of those with a PD were in graduate school, $\chi^2 (4) = 16.52$, $p < .01$; and more students without a PD were taking their first online course, while more students with a PD had some previous experience with online courses or took almost all of their courses online, $\chi^2 (2) = 16.97$, $p < .001$. While group equivalency would have minimized the poten-

tial impact of these demographic and background factors on our variables of interest, group equivalency is nearly impossible when assessing existing groups.

Among students who reported a PD, the majority was currently receiving, or had previously received, treatment for their PD (85.6%). Only a small proportion of these students were currently (6.3%) or previously (6.0%) registered with campus disability services. One-third (33.1%) of students with a PD reported that their symptoms have gotten in the way of receiving a passing grade in a traditional/in-person course, while only 9.9% reported the same for an online course.

Table 4 presents the participant responses to the question "What are your main reason(s) for choosing to enroll in an online course?" Students with a PD most frequently indicated the following responses: convenience, flexibility of schedule, better fit around work schedule, avoiding commuting, the course only being offered online, and the ability to learn at their own pace. Students both with and without a PD endorsed about half of the response options in equal proportions. However, students with a PD selected flexibility of schedule, avoiding commuting, better able to manage family responsibilities, feel more comfortable learning at home, social anxiety concerns, and management of mental health symptoms in greater proportions than students without a PD. When asked to select the single most important reason they chose to enroll in an online course, both groups endorsed flexibility of schedule as most important. Convenience, better fit around work schedule, and course only being offered online were other items a large percent of students indicated were most important, but in somewhat different proportions between groups (see Table 5).

In response to the statement, "Select the benefits you experience from being in an online course," students with a PD most highly endorsed these responses: more flexibility, longer to formulate responses, reduced anxiety, increased study time, and more comfort interacting online. Students with and without a PD selected similar benefits in largely equal proportions. The only differences between students with and without a PD were that students with a PD selected the benefits of reduced anxiety and easier to manage mental health symptoms in larger proportions (see Table 6). The single most important benefit of being in an online course was reported as more flexibility for both students with and without a PD (see Table 5).

Students were also asked to "Select the challenges you experience from being in an online course." Of the 14 challenges listed, students with a PD selected lack of in-person contact with professor, time management, no hands-on learning, lack of self-motivation, and difficulty concentrating/focusing most often. In comparison to students without a PD, students with a PD selected in greater proportions the following items: time management, difficulty concentrating/focusing, difficulty navigating through the course website, and psychiatric symptom interference. Students with and without a PD similarly endorsed all other items (see Table 7). In terms of the single biggest challenge experienced by students, there was less consensus than with the previous two topics. Lack of in-person contact with the professor and time management were the most often selected, but lack of self-motivation, no hands-on (live) learning, and difficulty concentrating/focusing were also selected in varying proportions by students with and without a PD (see Table 5).

Discussion

This study sought to add to the nascent literature regarding postsecondary online learning for students with a PD. We asked, from the student's perspective, what are reasons for enrolling in online courses, what are the benefits of taking online courses, and what are the challenges to taking online courses. Additionally, a comparison of the responses to these questions from students with and without a PD was conducted. In terms of students' reasons for choosing to take an online course the most highly endorsed reasons were similar for all students and highlighted convenience and flexibility. There were some differences between students with and without a PD in that students with a PD selected flexibility, avoiding commuting, better managing responsibilities, and more comfortable learning at home at a higher rate. Largely students both with and without a PD felt similarly about the benefits they experience from being in an online course. All students indicated that the flexibility of online courses was the most significant benefit. Regarding the challenges students experienced, both students with and without a PD indicated that lack of in-person contact with the professor, time management, and no hands-on learning were primary challenges. However, there were some differences between the frequency with which some challenges were endorsed between groups. Students with a PD reported time management, difficulty concentrating, and difficulty navigating the course website as challenges they experienced at higher rates than students without a PD.

In addition to the above differences between responses from students with and without a PD, there were differences related to mental health symptoms.

These differences are not surprising, since students without a PD are not likely to endorse these responses. It is interesting to note, however, that even among students with a PD, concerns related to mental health symptoms did not largely contribute to the choice to take an online course or to the challenges experienced with online courses. Reduced anxiety was endorsed at a fairly high rate (almost a third of participants) as a benefit to online courses though.

Overall, students with a PD indicated they choose to take online courses and identified benefits of online courses that were very similar to students without a PD. The differences to note are related to challenges experienced in online courses. The challenges of time management, difficulty concentrating, and navigating the course website may be related to the cognitive and executive functioning impairments that many people with a PD experience (Green, Kern, & Heaton, 2004, LaGarde et al., 2010; Snyder, 2013; Snyder et al., 2015; Tempesta et al., 2013).

Specific accommodations to address these challenges for students with a PD in online learning environments have not been explicated in the literature, although some initial recommendations have been made (see Grabinger, 2010; Grabinger, Aplin, & Ponnappa-Brenner, 2008). Disability services providers may want to consider that students with a PD in online courses could be supported by developing strategies to create structure to help with time management, as the lack of structure in online courses may be contributing to this challenge. Cognitive remediation interventions may be able to help students with a PD compensate for challenges associated with concentration and focus (Mullen et al., 2017).

Some have suggested utilizing Universal Design for Learning (UDL) strategies to minimize, if not eliminate, the need for individual accommodations (Crow, 2008; Grabinger et al., 2008; Rickerson et al., 2004). UDL helps to make courses more accessible for all students (Rose, 2000). Instructors may also want to use the Quality Matters rubric which provides guidelines that draw upon current best practices in the realm of web course design, display of content, and accessibility, and is collaboratively peer-reviewed (Legon & Runyon, 2007). Merging the two resources, or using UDL principles to develop the course and then Quality Matters to monitor the quality of content on an ongoing basis, holds promise for designing an accessible course and helping facilitate favorable student learning outcomes (Robinson & Wizer, 2016). Additional research is clearly needed to assess the effectiveness of specific accommodations, interventions, and/or course structures on the success of students with a PD in postsecondary online environments.

Limitations

The results of this survey are limited as a result of being from only one university thus potentially reducing the generalizability of its findings. However, the school is a large state university with a diverse student body and a wide variety of majors, years in school, and experience with online education. Additionally, there was a low survey response rate for this study. Online survey response rates are generally lower than those of paper-based administration, but the current response rate was lower than that typically found for online surveys (Nulty, 2008). The literature suggests average online survey response rates of 33%, whereas the response rate for this study was 11%. This could further limit the generalizability of the findings. To address these limitations additional research should be done across a diverse array of postsecondary institutions with a larger sample of individuals with a PD.

Conclusions

Improving educational outcomes for students with a PD is critical to positively impacting future employment and wages (Bureau of Labor Statistics, 2017). Online education presents an opportunity for students with a PD who may experience barriers related to traditional, in-person courses; however, it may also present its own unique challenges. The results of this survey research suggest that students with and without a PD experience similar benefits from online education, but students with a PD experience some challenges differently or to a higher degree. Additional work is needed in this area to further explore the challenges and barriers experienced by students with a PD in online courses and to identify and assess the effectiveness of strategies to mitigate these challenges.

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Table 1

Demographics and Online Experience of Sample

Variable	Total Sample	Psychiatric Disability	No Psychiatric Disability
	Mean (SD)	Mean (SD)	Mean (SD)
Age	26.22 (9.03)	27.34 (9.11)	25.98 (9.00)
	n (%)	*n* (%)	*n* (%)
Sex			
Male	416 (25.0)	45 (15.7)	371 (26.9)
Female	1249 (75.0)	241 (84.3)	1008 (73.1)
Year of Study			
Freshman	153 (9.2)	20 (7.0)	133 (9.6)
Sophomore	223 (13.4)	21 (7.3)	202 (14.6)
Junior	365 (21.9)	62 (21.7)	303 (22.0)
Senior	404 (24.3)	75 (26.2)	329 (23.9)
Graduate Student	520 (31.2)	108 (37.8)	412 (29.9)
Online Experience			
First Online Course	562 (33.8)	68 (23.8)	494 (35.8)
Some Exp w/ Online Courses	925 (55.6)	177 (61.9)	748 (54.2)
All/Almost All Courses Online	178 (10.7)	41 (14.3)	137 (9.9)

Table 2

Areas of Study Concentration for Sample

Major	Total Sample	Psychiatric Disability	No Psychiatric Disability
	n (%)	*n* (%)	*n* (%)
Business	302 (18.1)	39 (13.6)	263 (19.1)
Engineer/Computer/Science/Math	150 (9.0)	15 (5.2)	135 (9.8)
Education	112 (6.7)	22 (7.7)	90 (6.5)
Health	450 (27.0)	63 (22.0)	387 (28.1)
Humanities	94 (5.6)	26 (9.1)	68 (4.9)
Communications	101 (6.1)	18 (6.3)	83 (6.0)
Life/Physical Sciences	261 (15.7)	37 (12.9)	224 (16.2)
Social/Behavioral Sciences	324 (19.5)	79 (27.6)	245 (17.8)
Visual/Performing Arts	26 (1.6)	11 (3.8)	15 (1.1)
Undeclared	35 (2.1)	5 (1.7)	30 (2.2)
Other	189 (11.4)	39 (13.6)	150 (10.9)

Table 3

Survey Questions

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1. How old are you?
2. What is your gender?
3. Have you ever been diagnosed with any of the following conditions? (select all that apply)
   a) Schizophrenia or Schizoaffective Disorder
   b) Anxiety Disorder (e.g., Generalized Anxiety Disorder, Social Phobia, Panic Disorder)
   c) Depression
   d) Bipolar Disorder
   e) Obsessive-Compulsive Disorder
   f) Eating Disorder
   g) Learning Disability (e.g., ADD, ADHD, Dyslexia)
   h) History of Traumatic Brain Injury
   i) Physical Disability (Please Specify)
   j) Other (Please Specify)
   k) None
4. Are you currently receiving services to manage and/or treat the condition(s) noted in Question #3? (e.g., counselor, therapist, doctor)
5. Have symptoms from the condition(s) you noted in Question #3 ever gotten in the way of you receiving a passing grade in a traditional/in-person college classroom?
   l) Yes
   m) No
   n) Unsure
6. Have symptoms from the condition(s) you noted in Question #3 ever gotten in the way of you receiving a passing grade in an online class?
   a) Yes
   b) No
   c) Unsure
7. Are you currently registered with Campus Disability Services and/or the Disability Office at your college?
8. Which of these fields best describes your major, or anticipated major? You may indicate more than one if applicable.
9. What year of study best describes you?
10. What is your current level of experience with online learning at the college level?
11. What Learning Management System (LMS) are you currently using to take your online course(s)?
12. What are your main reason(s) for choosing to enroll in an online course? (Choose all that apply)
    a) Better manage family responsibilities
    b) Convenience
    c) Lack of transportation
    d) Avoid commuting
    e) Management of mental health symptoms
    f) Better fit around work schedule
    g) Enjoy online learning format
    h) Class was only offered online
    i) Flexibility of schedule
    j) More comfortable learning at home
    k) Ability to learn/process info at own pace
    l) Social anxiety concerns
    m) Other (please specify)
13. Of the reasons marked above, select the single most important reason you choose an online course.

14. Select the benefit(s) you experienced from being in an online class. (Choose all that apply)
    a) Reduced anxiety
    b) Easier to manage mental health symptoms
    c) Limited distractions
    d) More flexibility
    e) Longer period to formulate responses
    f) Increased study time
    g) Money saved
    h) No need for text book/ E-text book is cheaper option
    i) Increased contact/support from peers
    j) More detailed instruction/ learning material
    k) More comfortable interacting online
    l) No benefits observed
    m) Other (Please Specify)
15. Of the benefits marked above, select the single most important benefit.
16. Select the challenges you experienced from being in an online class. (Choose all that apply)
    a) Lack of support from disabilities office
    b) Difficulty navigating through course website
    c) Time management
    d) Inability to communicate effectively though email, chat or forums
    e) Lack of in-person one-on-one contact with professor
    f) Lack of technical skills
    g) No hands on (live) learning
    h) Decrease possibility of social interaction
    i) Physical limitations (Please Specify)
    j) Difficulty understanding online speech/ social cues
    k) Lack of self-motivation
    l) Psychiatric symptom interference
    m) Difficulty concentrating/ focusing
    n) No challenges observed
    o) Other (Please Specify)
17. Of the challenges marked above, select the single biggest challenge.
18. Overall, do you feel as though you have benefited from taking an online class?
19. If there's anything else you'd like us to know about your experiences, (both positive and negative) with online learning at your school, please feel free to write it in here
20. If you could change one thing about online learning (big or small) what would it be?

Table 4

Reasons for Choosing to Enroll in an Online Course

Reason	Psychiatric Disability (%)	No Psychiatric Disability (%)	χ^2 df=1	p
Convenience	74.1	70.2	1.77	.18
Flexibility of Schedule	70.3	64.3	3.71	.05
Better Fit Around Work Schedule	59.1	57.1	0.39	.53
Avoid Commuting	37.1	30.2	5.12	.02
Course Only Offered Online	34.3	33.9	0.02	.89
Ability to Learn at Own Pace	32.5	29.1	1.34	.25
Better Manage Family Resp.	28.3	19.7	10.48	<.01
More Comfort. Learning at Home	27.6	19.4	9.82	<.01
Enjoy Online Learning Format	23.1	19.2	2.22	.14
Social Anxiety Concerns	14.0	3.1	59.07	<.001
Manage Mental Health Symptoms	8.4	0.4	84.75	<.001
Lack of Transportation	7.3	7.5	0.01	.91
Other	5.2	6.0	0.26	.61

Table 5

Response Options Within Each Question Most Frequently Indicated as the "Most Important"

Response	No Psychiatric Disability (%)	Psychiatric Disability (%)
Choose to Enroll		
Flexibility of Schedule	23.4	21.4
Convenience	19.7	18.2
Better Fit Around Work Schedule	19.2	17.2
Course Only Offered Online	18.1	21.1
Benefit of Online Course		
More Flexibility	69.3	63.6
Challenges of Online Course		
Lack of In-Person Contact w/ Professor	30.9	25.8
Time Management	17.0	21.7
Lack of Self-Motivation	11.8	13.8
No Hands On (Live) Learning	9.0	6.3
Difficulty Concentrating/Focusing	5.0	7.9

Table 6

Benefits Experienced from Being in an Online Course

Reason	Psychiatric Disability (%)	No Psychiatric Disability (%)	χ^2 *df*=1	*p*
More Flexibility	79.0	79.7	0.07	.80
Longer to Form Response	44.4	41.6	0.79	.37
Reduced Anxiety	31.8	16.1	38.35	<.001
Increased Study Time	27.6	29.3	0.32	.57
More Comfort Online	23.4	18.6	3.47	.06
No Need for Text/Cheaper	19.9	19.4	0.04	.85
Money Saved	14.3	11.4	1.97	.16
Manage Mental Health Sx	10.8	1.7	61.39	<.001
More Detailed Instruction	7.3	10.9	3.33	.07
Inc. Support from Peers	4.5	5.1	0.18	.67
Other	1.0	2.2	1.55	.21

Table 7

Challenges Experienced Related to Online Course

Reason	Psychiatric Disability (%)	No Psychiatric Disability (%)	χ^2 *df*=1	*p*
Lack In-Person Contact w/ Prof.	54.9	51.3	1.25	.26
Time Management	41.3	31.9	9.30	<.01
No Hands-On (Live) Learning	36.0	31.0	2.78	.09
Lack of Self-Motivation	30.1	26.0	1.97	.16
Difficulty Concentrating/Focusing	28.0	19.9	9.11	<.01
Decreased Possibility of Social Int.	25.5	28.8	1.25	.26
Diff. Navigating Course Website	25.5	17.1	11.09	<.01
Inability to Comm. Online	23.1	20.0	1.36	.24
Diff. Understand Online Speech	8.0	8.2	0.01	.93
Other	4.9	5.2	0.05	.82
Lack of Technical Skills	4.9	5.0	0.01	.94
Psychiatric Symptom Interference	4.9	0.1	61.71	<.001
Lack of Support Disability Office	0.7	0.8	0.03	.86
Physical Limitations	0	0.4	1.25	.26