EDUCATION AND TREATMENT OF CHILDREN Vol. 39, No. 2, 2016

Perceptions of Mental Health Concerns for Secondary Students with Disabilities during Transition to Adulthood

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Abstract

This study reports results from a national survey of education and community professionals regarding secondary level students with disabilities who were experiencing mental health concerns. A total of 648 professionals from 49 states completed the on-line survey. Respondents reported that almost half (48%) of their students with disabilities were experiencing some mental health concerns and that these concerns were not always addressed through the Individualized Education Program (IEP) and transition planning process provided under federal law. Major barriers to providing effective services included: (a) limited availability of resources; (b) challenging student behaviors; (c) family characteristics and involvement; (d) lack of collaboration between stakeholders; and, (e) need for professional development. Key strategies to improve outcomes included: (a) increasing access to services; (b) developing student skills; (c) involving parents and families; (d) building positive student/teacher relationship; and (e) increasing training and professional development opportunities.

Keywords: mental health, disability, secondary special education, transition services

National attention towards understanding and addressing mental health concerns in the classroom has increased during recent years, and schools are struggling to identify interventions and

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resources that will support the growing needs of students who exhibit these concerns (Abrams, 2005; Davis, Jivanjee, & Koroloff, 2010; Jacobstein, Stark, & Laygo, 2007; Heflinger & Hoffman, 2008; Rowling, 2007; Teich, Robinson, & Weist, 2007). This focus on mental health in schools at the national level is especially important as schools have been recognized as a natural setting for providing mental health treatment and prevention services to youth who are experiencing mental health concerns (Anglin, 2003).

One particularly vulnerable group of students with mental health concerns includes those with disabilities who are beginning to transition from adolescence to adulthood (Clark, Koroloff, Geller & Sondheimer, 2008; Rosenberg, 2008). For our study, the definition of young adults with disabilities includes students across all disability types who are receiving special education or related services through an IEP or a 504 Plan. Adolescence is characterized by numerous biological, cognitive, psychological, and social changes as youth transition from childhood to young adulthood; and the risk for behavior, mood and substance use disorders increases sharply during adolescence (Center for Disease Control, 2011). Comparatively, prior research has suggested that students with disabilities are more likely to experience mental health concerns than those without disabilities (Taggart, Cousins & Milner, 2007; Emerson & Hatton, 2007). In one study comparing the emotional, behavioral and mental health status of young adults with and without learning disabilities (LD), it was reported that young adults with LD were more likely to demonstrate emotional and behavioral problems than those without LD (Taggart, et al., 2007). Similarly, Emerson & Hatton (2007) found that individuals with intellectual disabilities were over six times more likely to experience a psychiatric disorder than those without an intellectual disability. These findings support the growing need to better understand mental health concerns among young adults with disabilities.

In addition to an increased likelihood of individuals with disabilities experiencing mental health concerns, previous research has suggested that individuals with disabilities and mental health concerns are at a greater risk for experiencing negative in-school and post-school outcomes. Studies have shown that students with mental health concerns have faced a number of in-school barriers, including decreased academic performance, and poor social skills and peer relationships (Barrett & Heubeck, 2000; Langley, Bergman, McCracken & Piacentini, 2004; Ma, 1999). Prior research also has suggested that individuals with disabilities and young adults with mental health concerns were less likely to live independently, be employed, and/or participate in post-secondary training (Newman et al., 2011; Clark et al., 2008).

Transition services are an important component of the educational experiences young adults with disabilities receive as a part of their right to a free and appropriate education. The purpose of these services is to support positive post-secondary outcomes for young adults with disabilities in the areas of education, employment, and if appropriate, independent living (Individuals with Disabilities Education Act, 2004). Transition services are to be included as a transition plan in students' IEPs beginning no later than the year they turn 16 (unless a state has designated a younger age), and include a set of coordinated activities that are guided by a student's preferences, interests, needs and strengths. These services may include transition assessment, targeted instruction, related services (i.e., vocational rehabilitation, community mental health, etc.), community experiences (i.e., work experience, transportation), and the development of employment and other post-secondary adult living objectives. There is a dearth of research that seeks to understand the transition experiences for transition age youth with disabilities who also experience mental health concerns. These factors draw attention to the importance of advancing research on addressing mental health concerns for this particularly vulnerable population achieving poor life outcomes.

As previous studies have demonstrated, one way of advancing the research on mental health concerns for young adults with disabilities is to understand the perceptions of current teachers and related school personnel who work intimately with these students in the classroom (Repie, 2005; Reinke, Stormont, Herman, Puri & Goel, 2011). By drawing upon the expertise of those who are working directly with our population of focus, we can create new knowledge that will help to inform future research and practice that supports positive post-secondary outcomes for young adults with disabilities who are experiencing mental health concerns. As an example of this, Repie (2005) utilized the perceptions of general and special education teachers, school counselors, and school psychologists to assess the presenting problems of general education students as well as the availability of mental health services for these students. These authors reported the perceptions of key informants to provide broad and accurate perspectives of current issues related to mental health in schools and increase the quality of subsequent mental health programming (Repie, 2005). Similarly, Reinke et al. (2011) utilized the perceptions of 292 elementary school teachers to document important information about how teachers saw their role in mental health service delivery. Reinke et al. (2011) discuss the importance of partnering with educators throughout the research process to improve service delivery and the implementation of effective practices. Teachers have a unique opportunity

to see changes in academic performance and mood and to provide valuable information about barriers and strategies. While previous research has utilized teacher perceptions to advance knowledge and practice in similar areas, there are no national studies examining teacher perceptions of mental health issues for transition age youth with disabilities.

The aim of this study was to address this gap in the research and explore the following research questions: (a) how do education and community professionals describe issues related to mental health for secondary level students with disabilities?; and (b) what are the perceived barriers to and strategies for working with and supporting students who experience a disability and a mental health concern?

Methods

We surveyed a national sample of education and community professionals to collect data regarding the prevalence of behavioral and mental health concerns among transition age students with disabilities, the ways schools are working to address these concerns, and the needs of the professionals who are facilitating these services.

Measure

The on-line survey collected data about teacher perceptions of mental health concerns among transition age students. We used an iterative development process to create and revise the content and validity of each item. This development process first included a review of the literature in the areas of special education and transition, school mental health, educational psychology, and psychology to identify existing research on factors affecting in-school service delivery and post-secondary outcomes for young adults experiencing disability and mental health concerns. Sixteen primary sources were identified and used to help inform the development and design of an initial survey (i.e., Davis, et al., 2010; Repie, 2005; Taggart, et al., 2007). We then asked a panel of six experts in secondary special education, transition, mental health counseling, and couples and family therapy to review our initial survey and provide feedback. These experts were selected based upon their previous research experience with our target population and in using survey methodologies. After collecting feedback from our panel of experts and making revisions to our survey, we then pilot tested and finalized our survey with feedback from four secondary special education teachers and two school-based transition specialists in roles similar to the targeted respondents of the survey.

Our survey instrument included 43 questions grouped into three sections. The first section included items that gathered demographic information about the education and community professional who completed the survey (e.g., *gender*, *race/ethnicity*, *position*, *experience*). The second section of the survey focused broadly on assessing the types of mental health concerns that these professionals were observing among secondary students with disabilities (e.g., *Have students in your classroom exhibited or self-reported any of the following mental health concerns?*), the types of services that these students are accessing through their schools and communities, and the coordination of services among stakeholders. The third section included questions about respondent's professional development needs, (e.g., *Would you like to receive more training or information about mental health concerns for your students with disabilities?*) as well as barriers and strategies for serving these students (e.g., *What have been your most successful strategies in addressing the mental health needs of transition age youth with disabilities?*).

In an effort to define mental health concerns more specifically for this study, we developed a list of 14 behaviors representing common mental health concerns. Drawing on previous research in the field, our items included: worry/anxiety/nervousness; withdrawal or social isolation; impaired self-esteem; depression; experience of trauma; inappropriate sexual behavior; peer relationship problems; alcohol or drug abuse; suicidal thoughts or behaviors; attention deficit/hyperactivity; impulsive/dangerous behaviors; classroom disruptiveness; physical or verbal aggression; and other (i.e., write in option for individual responses; Repie, 2005). This list of mental health concerns was used consistently throughout our survey.

Thirty-seven of the questions (86%) were closed-ended with response options including: (a) "*yes*," "*no*," or *"does not apply"*; (b) "*check all that apply*"; (c) Likert-type response options (1 = *never*; 6 = *always*); and (d) one sliding percentage scale (e.g., *What approximate percentage of transition age students with disabilities who you work with demonstrate mental health concerns?).* Six of the forty-three questions (14%) were open-ended, and solicited qualitative responses (e.g., *What have been your most successful strategies in addressing the mental health needs of transition age youth with disabilities?*).

Survey Administration

The survey was administered through two national email listservs including the National Post-school Outcome Center and the IDEA Partnership's Community of Practice on Transition. In addition, the survey was administered to one state level transition focused listserv in the state of Oregon. These distribution outlets typically

provide resource materials to school professionals regarding best practices in secondary special education and transition. The recruitment email and consent form, approved through our Institutional Review Board for Human Subjects Research, was distributed through each listserv and specified that survey respondents should be: "special education teachers, transition specialists and school staff who work with transition age youth with disabilities." All surveys were collected within a six-week period. Respondents who completed the survey were given the opportunity to be entered into a random drawing for one of nine gift incentives (e.g., eight $20.00 Amazon gift cards, and one iPad mini).

Respondents

Of the 762 surveys completed, 114 were determined to be invalid and were excluded from the analysis. Invalid surveys included: (a) those who reported that they were not working directly with secondary level youth with disabilities (i.e., parent, researcher); (b) those who held a position other than special education staff, other school staff, or other community staff and, (c) those who completed less than eighty-percent of the survey. After these exclusion criteria were applied, 648 valid surveys remained that were used for analyses. Missing data are reported where applicable.

The listservs used to recruit our respondents are fluid in numbers and usage, and because of this a response rate could not be calculated. Listserv members may be the point persons in their state or school and forward pertinent messages to additional individuals or listservs (i.e., a state department listserv member may forward the email to all special education directors who are in the state, who then may forward the email to all of their special education faculty and staff). However, when determining the sample size necessary for a given population, "once a population gets in to the tens of thousands there is virtually no difference in the sample size needed in order to achieve a given level of precision" (Dillman, 2000, p. 208). Using a conservative population of 1 million potential respondents, we estimate that our sample size of 648 respondents provides a sampling error of ±5% at the 95% confidence level (Dillman, 2000). Survey respondents consisted of (a) high school special education staff (72%), (b) other school staff (21%), and (c) community staff working with youth with disabilities (7%). Special education staff included special education teachers, transition specialists, and paraprofessionals. Other school staff included administrators, school psychologists, school counselors, and school nurses. Community staff included Vocational Rehabilitation (VR) counselors, community social workers, and therapists.

Table 1
Respondent Demographics ($n = 648$)

Variable	*n*	%
Gender		
Female	547	84.4
Male	94	14.5
Missing	7	1.1
Race/Ethnicity		
African American	24	3.7
American Indian or Alaskan Native	4	0.6
Asian	9	1.4
Hispanic or Latino	11	1.7
Native Hawaiian or Other Pacific Islander	3	0.5
White	562	86.6
Multiracial	16	2.5
Prefer not to specify	16	2.5
Missing	3	0.5
Position		
Special education staff	467	72.1
Other school staff	133	20.5
Other community staff	48	7.4
Years of Experience		
Less than 5 years	86	13.3
5–10 years	154	23.8
11–15 years	137	21.1
16+ years	265	40.9
Missing	6	0.9
Program Setting		
General education classroom	59	9.1
Resource room or learning center	111	17.1
Community based/work program	182	28.1
Special education classroom	289	44.6
Missing	7	1.1
Geographic Setting		
Rural	202	31.2
Urban	207	31.9
Suburban	306	47.2

Chi-square tests of differences among respondent groups on key demographic variables revealed that other school staff and other community staff were more likely than special education staff to have higher levels of education ($X^2 = 47.61$, $p < .001$), more likely to be nonwhite ($X^2 = 36.07$, $p < .001$), and less likely to work in a classroom setting ($X^2 = 53.51$, $p < .001$). Please see Table 1 for a more complete list of demographic characteristics of survey respondents.

Data Analysis

Quantitative data were analyzed using SPSS 21.0 for Mac (IBM, 2012). After identifying the 648 valid surveys for analysis and using Chi-square tests to explore demographic differences among respondent groups, we used descriptive statistics to examine basic trends in the data. Responses to the open-ended questions were categorized and coded for themes following a multi-step qualitative analysis process outlined by Miles, Huberman, and Saldaña (2013). Three of the co-authors independently conducted the first-level of coding to establish broad themes within the responses to the open-ended questions. The same three co-authors then independently conducted the second-level of coding, meeting several times throughout to discuss areas of disagreement until consensus was reached (Miles et al., 2013).

Results

The findings from our survey are presented following the structure of our major research questions. First, we present a summary of findings focused on how education and community professionals describe mental health concerns for secondary level students with disabilities. Second, barriers and strategies for supporting secondary students who experience a disability and mental health concern are presented, with emphasis on the critical role of transition to post-school environments.

Mental Health Concerns for Secondary Level Students with Disabilities

Survey respondents reported that 48% of the secondary level students with disabilities they work with were experiencing some type of mental health concern. Moreover, 82% of respondents reported that their students received mental health services in their community, and 60% reported that mental health services were being provided in their school. When respondents were asked about their perception of the level of effectiveness of the mental health services provided in their school or community, more than half (57.6%) reported the services be-

ing provided were either *effective* or *very effective* (on a four-point scale of very ineffective to very effective). Furthermore, half (50.2%) of the respondents reported that they were *satisfied* or *very satisfied* (on a four-point scale of very dissatisfied to very satisfied) with the mental health services provided in their school or community.

Mental health concerns and transition planning. Respondents were asked to select the mental health concerns presenting significant challenges to their student's transition planning process. Nearly all (96.9%) of respondents indicated that transition planning was available for their students. A majority of respondents indicated that *community work experiences* (79%), *school-based work experience* (76.8%), and *career development/transition courses* (68%) were also available. The transition services least likely to be provided at school were *coordinated family support* (42.3%), and a *community living program* (21.0%). The mental health concerns reported by respondents as most often presenting a challenge to the transition process included: *worry/anxiety/nervousness* (65.4%), *impulsive/dangerous behaviors* (65.4%), and *physical or verbal aggression* (65.1%). Notably, *suicidal thoughts or behaviors* (39.6%) and *experience of trauma* (35.7%) were considered the least significant challenges to the transition planning process. Next, respondents were asked the question *"How often are mental health concerns discussed during the development and implementation of transition planning?"* On a scale of one to six (1 = *never*; 6 = *always*), 69% of respondents indicated that mental health concerns were discussed never to occasionally, leaving 31% of respondents indicating that mental health concerns were discussed frequently or very frequently.

Collaboration with families and mental health providers. Survey respondents were asked how often they were collaborating with families related to a student's disability and mental health concerns. The majority of respondents reported that families participate in students' IEP meetings either *frequently* or *very frequently* 59% of the time (on a six-point scale of never to very frequently). Similarly, almost half (49.8%) of the survey respondents reported that they communicate with a student's family about mental health concerns *frequently* or *very frequently* (on a six-point scale of never to very frequently).

When survey participants were asked how frequently they coordinated services with a mental health provider, only 18% reported that they coordinated services with a mental health provider *very frequently* or *always* (on a six-point scale of never to always). Similarly, when asked if respondents included mental health providers in the transition planning and/or IEP process, only 16.7% reported including mental health providers *very frequently* or *always* (on a six-point scale of never to always).

Mental health concerns and the IEP. To describe the most common mental health concerns experienced by secondary students with disabilities, all respondents were asked to select from a list of 14 mental health concerns they had observed and/or students had self-reported. The most commonly observed and/or student self-reported mental health concerns were *peer relationship problems* (96.5%), *worry/anxiety/nervousness* (95.7%), and *attention deficit/hyperactivity* (95.8%). *Alcohol or drug abuse* (61.9%) and *suicidal thoughts or behaviors* (61.4%) were reported to be the least observed mental health concerns.

Respondents were asked to rate on a scale of one to six (1 = *never*; 6 = *always*), how often services to address mental health concerns were included in the IEP. While there was a high percentage of respondents who reported frequent mental health concerns among young adults with disabilities, only 14% of respondents reported that mental health services were included in the IEP *very frequently* (9%) or *always* (5%). To further explore this area, using the list of 14 mental health concerns, respondents were asked to report the mental health concerns that are most often addressed on students' IEP. The most common mental health concerns addressed on the IEP were *classroom disruptiveness* (66.1%), *attention deficit/hyperactivity* (65%) and *peer relationship problems* (57%). The least common mental health concerns addressed in the IEP were *experiences of trauma* (12.8%) *and suicidal thoughts or behaviors* (12.5%).

To identify discrepancies between the mental health concerns that were observed and those that were addressed on the IEP, the differences between the responses of these two questions were calculated. The largest discrepancies between the mental health concerns observed in the classroom and those that were addressed on the IEP were *experiences of trauma* (60.5% difference between observed and addressed on IEP), *impaired self-esteem* (57.7% difference), and *depression* (53.1% difference). These findings indicate that *experiences of trauma*, *impaired self-esteem*, and *depression* were the mental health concerns most likely to be present for students but not addressed through their IEPs. The smallest discrepancies between the mental health concerns observed and addressed on the IEP were between *classroom disruptiveness* (26.0% difference), *physically or verbally aggressive behaviors* (29.2% difference), *attention deficit/hyperactivity* (30.8% difference), and *impulsive/dangerous behaviors* (31.1% difference). These findings indicate that *physically or verbally aggressive behaviors, attention deficit/hyperactivity, and impulsive/dangerous behaviors* were the mental health concerns most likely to be present for students and addressed by their IEPs. Please see Figure 1 for a comparison of mental health concerns observed by respondents and those addressed on a students' IEP.

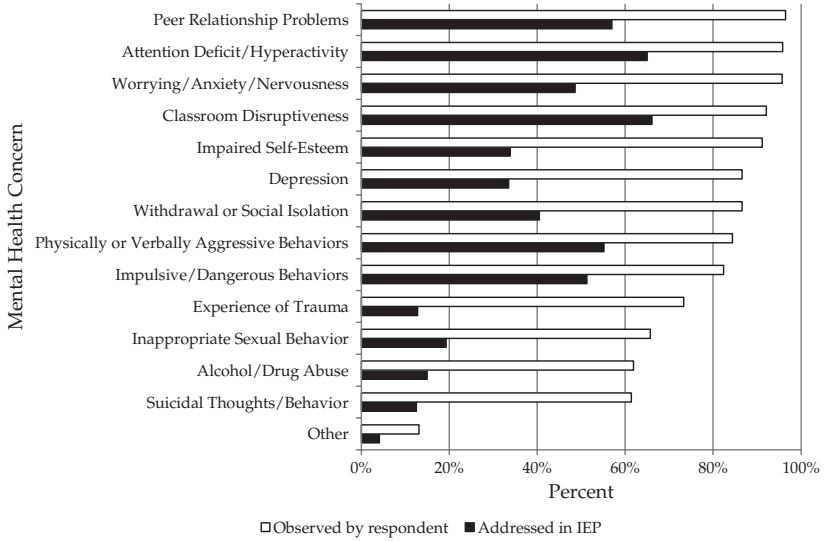

Figure 1. Comparison of mental health concerns observed and/or self-reported by professionals in the classroom and mental health concerns addressed in the IEP.

Barriers and Strategies

Respondents were asked open-ended questions to identify perceived barriers and strategies for working with and supporting students who experience a disability and mental health concern. The following section is a synthesis of the responses to these open-ended questions—organized first by barriers and strategies and then by the first and second level themes that emerged from the open-ended responses—and data from two closed-ended questions regarding professional development.

Barriers. Respondents were asked the following open-ended question: "*What have been your biggest challenges or barriers in addressing the mental health needs of transition age youth with disabilities?*" In order of the frequency reported, the major themes from this open ended question were: (a) limited availability of resources; (b) student behaviors; (c) family characteristics and involvement; (d) lack of collaboration between stakeholders; and, (e) need for professional development. The first and second level themes are described below and summarized in Table 2.

Limited availability of resources. Limited availability of resources was identified as a barrier in 260 of 516 open-ended responses (51% of responses). The limited availability of resources that were most

Table 2
Summary of Barriers Identified by Survey Respondents

First Level Theme	Second Level Theme	Quotes from Respondents
Limited availability of resources	Too few qualified personnel	*"There is a lack of resources for students who are not ready for competitive employment."*
	Limited financial resources	
	Limited programming options	*"Very little Mental Health support in this county."*
Student behaviors	Student motivation and follow through	*"A lot of times, these individuals don't want to hear what we have to say, or don't really care."*
	Substance abuse issues	
	Perceived stigma and feelings of shame	*"Getting the youth to actually access the resources available to them."*
Family characteristics and involvement	Limited family financial resources	*"The anxieties of the family can make transition difficult."*
	Families not knowing where to begin	
	Family involvement and follow through	
Collaboration between stakeholders	Limited collaboration within schools	*"Lack of communication with community mental health providers."*
	Limited collaboration between organizations	*"It is rare to find mental health services for students with Autism and intellectual disabilities."*
	Limited collaboration with families	
Professional development	Limited training for educators on identifying and supporting students with mental health concerns	*"I've received no training in this area . . ."*
	Limited training for mental health professionals on supporting students with disabilities	*"Seems many therapists don't know how to help adults with disabilities."*
		"Finding qualified people to manage mental health concerns for students with intellectual disabilities."

often discussed included: (a) personnel; (b) financial; and (c) appropriate programs for serving youth with disabilities who also experience mental health concerns. First, special education teachers and transition professionals reported that it is difficult to find experienced personnel to provide services to individuals with disabilities who

experience mental health concerns. One respondent noted that *"finding qualified people to manage mental health concerns for students with intellectual disabilities."* is a barrier. Second, respondents reported that limited financial support restricts the availability of necessary services and supports. For example, *"I cannot offer any [mental health] service because it costs the district . . . I have zero budget for anything I want to do."* Lastly, respondents reported a lack of resources and programs designed to specifically support youth with disabilities experiencing mental health concerns. As one respondent noted, *"It is rare to find mental health services for students with Autism and intellectual disabilities."*

Student behaviors. Student behaviors were identified as a barrier in 200 of the 516 open-ended responses (39% of responses). Respondents reported multiple student characteristics that they perceived as a barrier to addressing their mental health concerns, including: (a) students refusing or lacking follow through with supplemental mental health services and supports; (b) substance abuse issues; and (c) student's voicing feelings of shame or stigma about having a disability and mental health concern that prevented them from acknowledging or disclosing the concern to other teachers or potential employers. Some respondents reported being concerned about student motivation; *"Students do not follow through . . . and often an agency will not see them again if they don't show up."* Another suggested that it is difficult when *"dealing with students who need medication and are not taking it"* and *"not staying in therapy."* Another respondent reported that it is difficult to *"[help] student[s] understand that having a mental health issue does not make them 'dumb' or 'crazy,' and the stereotypes in the community are often very hard to overcome."*

Family characteristics and involvement. Family characteristics and involvement were identified as a barrier in 167 of 516 open-ended responses, (32% of responses). Respondents reported a variety of family characteristics as barriers including that: (a) families often do not have the financial resources to pay for services; (b) families often want to help their children but do not know where to begin searching for services; and, (c) limited family involvement and follow through. In regards to family support one professional stated a barrier is, *"discouragement, giving up, chaotic families who can't/don't support academics, parents who do not OK [mental health] counseling, who let the student decide if they want to be in therapy."* Another respondent noted, *"Parents don't want to admit that the student is struggling with mental health issues."*

Collaboration between stakeholders. Collaboration between stakeholders was identified as a barrier in 129 of the 516 open-ended responses (25% of responses). Respondents identified a number of different collaboration related barriers, including: (a) collaboration within

their own schools/organizations; (b) collaboration between community services and supports; and (c) collaboration with families. One teacher stated that a barrier includes, *"mental health support providers who are NOT active participants, and collaborating effectively with the student's educational team."* While another individual commented, *"sometimes there is a lack of communication or collaboration."*

Professional development. Professional development was identified as a barrier in 90 of the 516 open-ended responses (17% of responses). Open-ended responses included: (a) a limited amount of training and knowledge to help educators in identifying and supporting students with mental health concerns; and (b) a limited amount of training and knowledge to help mental health professionals support individuals with disabilities. One educator noted, *"I've received no training in this area. I'm not sure what services are available in my community."* Another respondent reported a barrier to supporting the mental health needs of their students is, *"finding qualified people to manage mental health concerns for students with intellectual disabilities."* Another individual indicated *"transition teams do not understand the relationship between the effects of mental health impairments and postsecondary outcomes."*

Strategies. Respondents were asked the following open-ended question: *"What have been your most successful strategies in addressing the mental health needs of transition age youth with disabilities?"* Five themes emerged from responses: (a) increase access to services; (b) develop student skills; (c) involve parents and families; (d) build positive student/teacher relationships; and (e) increase professional development. The first and second level themes are described below and included in Table 3.

Increase access to services. Increasing access to services was identified as a successful strategy in 258 of the 477 open-ended responses (54% of responses). The major strategies included, (a) early identification and intervention for mental health issues; (b) collaboration and coordination; and (c) communication with stakeholders. One strategy to increase access to services was to introduce service providers early to students. One individual said, *"Taking the uncertainty out of transition. Bringing adult services staff that are part of the future into the present day life of the student to develop new relationships while still comfortable with relationships with familiar school staff. Establish students in activities and environments that are part of their future vision."* Special educators also reported that coordinating services was a successful strategy; *"we have made sure referrals had been made for DMH (Department of Mental Health) adult services, and they have been able to set up an external support network that the student would transition into."* Lastly, respondents indicated that constant communication with stakehold-

Table 3
Summary of Strategies Identified by Survey Respondents

First Level Theme	Second Level Theme	Quotes from Respondents
Increase access to services	Early identification and intervention Collaboration and coordination Communication with stakeholders	*"Making sure that the student is set up with community resources and that the student is familiar with how the resources work."*
Develop student skills	Self-advocacy Goal Setting Job Coaching	*"Developing and using strategies for every day school situations."*
Involve parents and families	Engage parents and families Share resources and available services Help families coordinate services	*"Making sure that parents are a part of the process."*
Build positive student/teacher relationships	Build trust and establish rapport Get to know the student Set clear rules and expectations	*"Providing a supportive, non-judgmental, environment to allow for open communication. Normalizing the mental health concern to help the student feel that he is not alone."*
Increase training and professional development	Training to identify and support students with mental health concerns Work with mental health organizations to provide training and professional development	*"Educating transition staff on the needs of the student, and how to make action plans that include supportive strategies."* *"Working with community services providers to speak to staff and provide training on how to support student with mental health needs."*

ers was a successful strategy. One individual noted *"the most successful strategy has been keeping the student, family, school, mental health centers, and other services involved with the student communicating and sharing information."*

Develop student skills. Developing student skills was also identified as a strategy to overcome barriers of mental health concerns in 163 of the 477 open-ended responses (34% of responses). Strategies

included teaching students individualized skills, such as coping strategies, self-regulation skills, self-awareness, empathic thinking skills, communication skills, work-place social skills, and medication management to help them address their unique set of circumstances. For example, one suggested strategy was to use *"explicit instruction and guided practice in self-regulation skills, [with] coordinated use of strategies in various classes to prompt and reinforce student's use of self-regulation strategies."*

Involve parents and families. Working with families was identified as a strategy to overcome barriers in 126 of the 477 open-ended responses (26% of responses). Strategies for working with families included, (a) engaging parents and families; (b) providing information on community resources and services; and (c) helping families to coordinate services. One special educator noted, *"I was successful in engaging the parents in the support of their children with [mental health] needs by discussing the present levels (both written within the IEP, and informally) with the families, and providing them resources in the community."* Another specific strategy a transition professional suggested was *"connecting parents to System Parent Mentors who can provide local resources to them."*

Build positive student/teacher relationships. Building positive student/teacher relationships was identified as a strategy to overcome barriers in 105 of the 477 open-ended responses (22% of responses). Strategies for building positive student/teacher relationships included, (a) demonstrating trust, (b) showing empathy and behaving in a non-judgmental way, (c) being aware of issues in student's lives; and (d) and setting clear rules and expectations. Many respondents felt that it was necessary to build a strong and trusting relationship with students. A special educator suggested the strategy of, *"providing supportive non-judgmental environment to allow for most open communication. Normalizing the mental health concerns to help the student feel that he/she is not the only person struggling with it."* Another individual stated the importance of being aware of student issues, one strategy was, *"immediately picking up on signs that something is wrong . . . and trying to set up support services as soon as possible."* Lastly, one professional said to *"simply treat them like a human, get their input on their future. Once a relationship is built with these students it is easier for them to trust you and develop a transition plan."*

Increase professional development opportunities. Increasing professional development was identified as a strategy to overcome barriers of mental health concerns in 19 of the 477 open-ended responses (4% of responses). The major strategies included, (a) providing training to educators to help them identify and support students with mental health concerns; and (b) working with mental health

organizations to provide the training and professional development. One respondent reported, *"Educating staff that all students are different and all students cannot be on the same plan because of a similar diagnosis."* Another respondent reported a strategy that had worked for them was *"Educating transition staff on the needs of the students, and how to make action plans that include supportive strategies."* Further, some individuals used local university personnel to train them on providing services to their students, while another respondent reported a strategy that had worked for them was *"working with community services providers to speak to staff and provide training on how to support students with mental health needs."* While professional development was identified as a strategy in only 4% of the open ended responses, data from a closed ended question in the survey indicated that more than three quarters (76.2%) of all respondents would like to receive more training or information about mental health concerns for secondary students with disabilities.

Discussion

Although mental health concerns are prevalent among students with disabilities (Reinke, et al, 2011; Taggart, et al., 2007; Emerson & Hatton, 2007; Centers for Disease Control and Prevention, 2013), there has been little research describing the complexity of issues faced by professionals who provide special education and transition services to this population. To address this gap in the research, this study explored the following two research questions: (a) how do education and community professionals describe issues related to mental health for secondary level students with disabilities?; and, (b) what are the perceived barriers to and strategies for working with secondary students who experience a disability and a mental health concern?

Prevalence rates estimate that nearly half of adolescents aged 13 to 18 are affected by at least one class of mental health disorder while almost 28% are affected by disorders that result in severe impairment of daily life (Merikangas et al., 2010). These disorders can impact functioning across multiple environments including home, school, and relationships with peers and can have substantial societal costs (Center for Disease Control, 2011; National Research Council and Institute of Medicine, 2009). On average, respondents from our survey reported that 48% of the transition age youth with disabilities with whom they worked were experiencing some kind of a mental health concern. This estimate supports limited research suggesting young adults with disabilities experience high rates of mental health concerns (Reinke, 2011). Unfortunately, there is very limited empirical evidence that reports

such information for a broad population of transition age youth with disabilities, and so our comparison is derived from prevalence of mental health concerns among the general school age population. While this percentage is based only on teacher perception (e.g., individuals who are not trained mental health providers and can not diagnose such concerns), it remains the closest attempt in the field of secondary special education and transition to measure the prevalence of mental health concerns among transition age youth with disabilities

Furthermore, in an effort to describe the current landscape of services for transition age students with disabilities who were also experiencing mental health concerns, we asked respondents to report the transition services that were offered to students in their location. As one might expect, transition planning, a federally mandated service was the most common transition service that respondents reported. Other common transition services included community work experience, career development services, and transition classes. These specific transition services have been identified as predictors of post-school success by prior correlational research (Mazzotti et al., 2015; Test et al., 2009). Unfortunately, additional services that have an empirical base—such as coordinated family support, work assessments, and community living programming—were services that were less frequently reported as being offered in the respondents' locations. Inconsistency of implementation across transition services for youth could potentially mean that students are not receiving all the necessary services for a successful transition.

The discrepancy reported by special education personnel between how often mental health concerns were observed, and how often mental health concerns were addressed on an IEP is another important finding from our survey. Across the board, the results from our survey suggest that mental health concerns are observed in students more often than they are addressed on their IEP. Based upon previous research that suggest that mental health concerns are a significant barrier to students making a smooth transition into adulthood, we expected to see a greater number of mental health concerns being addressed on the students' IEPs. More specifically, respondents indicated that the mental health concerns with the smallest discrepancies between being observed and being addressed in a student's IEP were those that are directed towards the external environment (i.e. classroom disruptiveness, physical or verbal aggression, peer relationship problems, etc.), rather than those that are directed towards the self (worry/anxiety/nervousness, depression, impaired self-esteem, etc.). One reason for this discrepancy may include the demand for schools and teachers to address student behaviors that affect other

students' learning. On the other hand, this may be a result of the increased challenge associated with identifying and treating internalized mental health concerns over those that are externalized. However, by focusing largely on externalizing behaviors, schools may be preventing students who exhibit internalizing behaviors from receiving supports and services that will help to promote mental health and positive post-secondary outcomes.

When asked about coordination with mental health providers, only 16.7% of survey respondents reported that they included mental health providers in the transition planning and/or IEP process. Involving adult service providers in the transition planning process is just one key element of successful transition planning. Special educators may need to look outside of the services provided through the school (i.e., individual counseling with community health providers, medication review with a psychiatrist, community support programs) to make sure that all of a student's needs are met (Test, Aspel, & Everson, 2006). An example of this might include teaching a youth medication management as a part of a transition goal related to independent living. Incorporating mental health services into the transition planning process may not be standard practice, but will be a key element to consider as students with disabilities will be impacted by mental health concerns after graduating and transitioning to postsecondary learning environments and work.

About half of the respondents (49.8%) indicated that they were either dissatisfied or very dissatisfied with the mental health services that were being provided to their students, and similarly, many (43.3%) also considered these services to be either ineffective or very ineffective. Moreover, our findings also suggest that, given that the mental health services were more often provided in a student's community than in school, there are a lack of school-based mental health services for students. These findings are consistent with the most commonly reported barrier—limited availability of resources within schools or communities. These findings are contradictory to previous research reporting that students receiving services for mental health concerns are most often receiving these services in their schools (Burns et al., 1995), and that the federal government has identified the public school system as the best site to provide mental health treatment and prevention services (Anglin, 2003). We hope to see an increase in the availability of services within the public school system to help identify and address mental health concerns for transition age youth with disabilities and how services can best be embedded within the IEP to support achievement of a youth with disabilities with both educational and post-school goals.

Families were identified as both a potential barrier and a key support for secondary level students with disabilities and mental health concerns. Consistent with previous transition research, involving families was identified as a key strategy by respondents (Carter, Austin & Trainor, 2011; Mazzotti et al., 2015; Test et al., 2009). However, respondents also reported that at times a family's denial of their child's mental health concern was a barrier in being able to provide support to their students. This barrier may be a result of stigma associated with mental health, and may vary by culture; calling for a need for more culturally responsive and family centered services when working with families of students with disabilities and mental health concerns (Harry, 2008). This barrier may be addressed by a focus on building relationships with families, and understanding their ideas and conceptualizations of their children's challenges.

Finally, our findings point to a lack of resources to address many of these challenging issues and a need to increase access and knowledge of existing services. Respondents frequently reported that critical mental health services were not available in their communities and that students and families were not aware of how to access these services. Similarly, the majority of respondents (76%) indicated that they would like to receive additional training about mental health concerns. These finding suggest that teachers may be feeling uncertain about how to handle mental health concerns in their classroom and how to address these needs within the IEP to help a youth achieve school goals. Training on mental health concerns would be beneficial to all school staff, not just those working in special education.

Limitations

There are several limitations to this study that must be considered when interpreting the results. First, the definition of "mental health concerns" used may not align with other definitions of mental health concerns and can decrease the generalizability of our study. This limitation is not unique to this study, and in fact, was also a limitation found by a recent national report on mental health surveillance among children released by the Center for Disease Control and Prevention (2013). Additionally, because of our sample characteristics (i.e., special education teachers, transition specialists and school staff who work with transition age youth with disabilities), the strategies offered are not necessarily evidence based practices and should be interpreted with caution. Recruitment and sampling procedures were another limitation to the study. Although our sample was large (N = 648) and included a broad range of participants, it was a convenience sample and an overall response rate could not be determined. Responses were

recorded from 49 states, yet some states were represented with more respondents than others, which could skew results. This was a descriptive and exploratory study and results do not represent the experiences of all school personnel working with secondary level students with disabilities who also have mental health concerns.

Implications for Practice

School level. Given the current lack of resources to address mental health concerns for students with disabilities, it is important for schools to consider how to potentially meet these needs through existing school wide systems. School administrators may want to incorporate mental health supports in multi-tier systems of support such as Positive Behavior Interventions and Supports (PBIS; Butts, 2010; Simonsen & Sugai, 2013). One such model that focuses on mental health in a tiered system includes the Interconnected Systems Framework supported by the IDEA Partnership and the Office of Special Education Programs Technical Assistance Center on Positive Behavioral Interventions and Supports. The Interconnected Systems Framework focuses on integrating mental health in a tiered framework to support all students, not just students who have had a recent crisis (Barrett, Eber, & Weist, 2013). In addition, a majority of survey participants indicated that they would benefit from additional training regarding mental health services and supports. Modifications could be made to incorporate mental health topics into existing professional development structures. These modifications could include teaching school personnel the current supports and referral system that schools have in place for mental health concerns. Other professional development could include training about definitions of mental health so that teachers can better recognize issues during early onset.

Teacher level. Respondents reported using strong, honest, and caring relationships as a strategy for supporting students. While developing positive relationships with those who manifest unpleasant behaviors can be difficult, creating caring relationships with students has been shown to increase school engagement and help to prevent student dropout (U.S. Department of Education, 2015). By using evidence-based practices that provide opportunities for students and teachers to experience positive interactions with one another, teachers can often address the relationship barriers that are present when working with students who exhibit abrasive behaviors. One example of this is the check-and-connect intervention model, which offers a structured opportunity to provide students with individualized attention and has been shown to increase academic engagement (Anderson, Christenson, Sinclair, & Lehr, 2004). The use of praise statements

is another practice that has frequently been associated with improved student behavior (Hall, Lund & Jackson, 1968; Stormont, Smith & Lewis, 2007). A commonly referenced guideline is that teachers should aim for an overall ratio of four praise statements to each statement of criticism, and six praise statements for every 15 minutes that they spend with a student (Pisacreta, Tincani, Connell, & Axelrod, 2011; Trussel, 2008). Utilizing these, and other structured practices, can perhaps create an intentionality behind developing positive student and teacher relationships that can offset the all too often desire to pull away from students who exhibit maladaptive behaviors.

Implications for Research

It is important that we expand our understanding of the impact that mental health concerns have on students with disabilities during the transition from high school to adult roles and identify strategies that allow us to support these individuals in achieving positive post-secondary outcomes. Additional studies are needed to gather more insight into the lived experiences of students with disabilities who are also experiencing mental health concerns, and to understand how these experiences impact their current career development activities and beliefs about the future. A comprehensive investigation into this topic should also explore the role of special education services and community professionals in facilitating positive post-secondary outcomes, including within post-secondary education and vocational settings where students may first begin to realize the extent of their mental health concerns and seek support.

Additionally, further research is needed in the area of identification of mental health concerns among young adults with disabilities. A measure to identify mental health concerns among individuals with disabilities would help the field better describe the prevalence of mental health concerns among students with disabilities and refine strategies for supporting the unique needs of these individuals.

This study is the first to describe the perspectives of special education teachers and community professionals specifically working with secondary level youth who experience disabilities and mental health concerns. While our research provides basic descriptive data, further investigation is needed to understand the current experiences and needs of students, teachers and other education professionals.

References

Abrams, B. (2005). Becoming a therapeutic teacher for students with emotional and behavioral disorders. *TEACHING Exceptional Children*, *38,* 40–45.

Anderson, A., Christenson, S., Sinclair, M., & Lehr, C. (2004). Check & Connect: The importance of relationships for promoting engagement with school. *Journal of School Psychology*, *42*, 95–113.

Anglin, T. (2003). Mental health in schools. Programs of the federal government. In M.D. Weist, S.W. Evans & L. Laver (Eds.), *Handbook of SMH: Advancing practice and research* (pp. 73–86). New York: Kluwer Academic/Plenum.

Barrett, S., Eber, L., & Weist, M. (2013). *Advancing education effectiveness: Interconnecting school mental health and school-wide positive behavior support.* Retrieved from Positive Behavior Interventions and Supports website: http://www.pbis.org/school/school-mental-health/interconnected-systems

Barrett, S., & Heubeck, B. (2000). Relationship between school hassles and uplifts and anxiety and conduct problems in Grades 3 and 4. *Journal of Applied Developmental Psychology, 21*, 537–554.

Butts, E. (2010). Advancing school mental health in Montana: A report on changes to administrative rules for comprehensive school and community treatment. Prepared for: State of Montana Office of Public Instruction and Department of Public Health and Human Services.

Burns B., Costello E., Angold, A., Tweed, D., Stangl, D., Farmer, E., & Erkanli, A. (1995). Children's mental health service use across service sectors. *Health Affairs*, *14*, 149–159.

Carter, E., Austin, D., & Trainor, A. (2011). Factors associated with the early work experiences of adolescents with severe disabilities. *Intellectual and Developmental Disabilities,* 49, 233–247.

Center for Disease Control and Prevention (2011). Mental illness surveillance among adults in the United States. *Morbidity and Mortality Weekly Report,* 60, 1–29.

Centers for Disease Control and Prevention (2013). Mental health surveillance among children—United States, 2005–2011. *Morbidity and Mortality Weekly Report 62*(2), 2–18.

Clark, H., Koroloff, N., Geller, J., & Sondheimer, D. (2008). Research in transition to adulthood: Building the evidence base to inform services and support for youth and young adults with serious

mental health disorders. *Journal of Behavioral Health Services and Research*, *35*, 365–372.

Davis, M., Jivanjee, P., & Koroloff, N. (2010). Paving the way: Meeting transition needs of young people with developmental disabilities and serious mental health condistions. Portland, OR: Research and Training Center on Family Support and Children's Mental Health. Retreived from: http://www.pathwaysrtc.pdx.edu/pdf/pbPavingTheWayMonograph.pdf

Dillman, D., (2000). Mail and Internet Surveys: The Tailored Design Method (2nd Ed.). New York, NY: John Wiley & Sons, Inc.

Emerson, E., & Hatton, C. (2007). Mental health of children and adolescents with intellectual disabilities in Britain. *British Journal of Psychiatry*, *191*, 493–499.

Hall, R., Lund, D., & Jackson, D. (1968). Effects of teacher attention on study behavior. *Journal of Applied Behavior Analysis, 1*, 1–12.

Harry, B. (2008). Collaboration with culturally and linguistically diverse families: Ideal versus reality. *Exceptional Children*, *74*(3), 372–388.

Heflinger, C., & Hoffman, C. (2008). Transition age youth in publicly funded systems: Identifying high-risk youth for policy planning and improved service delivery. *Journal of Behavioral Health Services & Research*, *35*, 390–401.

IBM Corp. Released 2012. IBM SPSS Statistics for Mac, Version 21.0. Armonk, NY: IBM Corp.

Individuals With Disabilities Education Improvement Act of 2004, 20 U.S.C. § 1401 (2004).

Jacobstein, D., Stark, D., & Laygo, R. (2007). Creating responsive systems for children with co-occurring development and emotional disorders. *Mental Health Aspects of Developmental Disabilities*, *10*, 91–98.

Langley, A., Bergman, R., McCracken, J., & Piacentini, J. (2004). Impairment in childhood anxiety disorders: Preliminary examination of the Child Anxiety Impact Scale -Parent Version. *Journal of Child and Adolescent Psychopharmocology*, *14*, 105–114.

Ma, X. (1999). A meta-analysis of the relationship between anxiety toward mathematics and achievement in mathematics. *Journal for Research in Mathematics Education*, *30*, 52–540.

Mazzotti, V., Rowe, D., Sinclair, J., Poppen, M., Woods, W., & Shearer, M. (2015). Predictors of post-school success: A systematic review

of NLTS2 secondary analyses. *Career Development and Transition for Exceptional Individuals*. Advance online publication.

Mazzotti, V., Test, D., & Wood, C. (2012). Effects of multimedia goal-setting instruction on student's knowledge of the self-determination learning model of instruction and disruptive behavior. *Journal of Positive Behavior Interventions*, *15*, 90–102.

Merikangas, K., He, J., Burstein, M., Swanson, S., Avenevoli, S., Benjet, C., Georgiades, K., & Swendsen, J. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A). *Journal of the American Academy of Child and Adolescent Psychiatry*, *49*(10), 980–989.

Miles, M., Huberman, A, & Saldaña, J. (2013). *Qualitative data analysis: A methods sourcebook*. SAGE Publications, Incorporated.

National Research Council and Institute of Medicine (2009). Preventing mental emotional, and behavioral disorders among young people: Progress and possibilities. The National Academies Press: Washington, DC.

Newman, L., Wagner, M., Knokey, A., Marder, C., Nagle, K., Shaver, D., Wei, X., Cameto, R., Contreras, E., Ferguson, K., Greene, S., & Schwarting, M. (2011). The post-high school outcomes of young adults with disabilities up to 8 years after high school. A report from the National Longitudinal Transition Study-2 (NLTS2). Menlo Park, CA: SRI International.

Pisacreta, J., Tincani, M., Connell, J., & Axelrod, S. (2011). Increasing teachers' use of a 1:1 praise-tobehavior correction ratio to decrease student disruption in general education classrooms. *Behavioral Interventions*, *26*, 243–260.

Reinke, W., Stormont, M., Herman, K., Puri, R., & Goel, N. (2011). Supporting children's mental health in schools: Teacher perceptions of needs, roles, and barriers. *School Psychology Quarterly*, *26*, 1–13.

Repie, M. (2005). A school mental health issues survey from the perspective of regular and special education teachers, school counselors, and school psychologists. *Education and Treatment of Children*, *28*, 279–298.

Rosenberg, L (2008). Building a meaningful future for young people with mental illness. *Journal of Behavioral Health Services & Research*, *35*, 362–264.

Rowling, L. (2007). School mental health: Politics, power and practice. *Advances in School Mental Health Promotion, 1*, 23–29.

Simonsen, B., & Sugai, G. (2013). PBIS in alternative education settings: Positive support for youth with high-risk behavior. *Education and Treatment of Children*, *36*(3) 3–14.

Stormont, M., Smith, S., & Lewis, T. (2007). Teacher implementation of precorrection and praise statements in Head Start classrooms as a component of a program wide system of positive behavior support. *Journal of Behavioral Education*, *16*, 280–290.

Taggart, L., Cousins, W., & Milner, S. (2007). Young people with learning disabilities living in state care: Their emotional, behavioral and mental health status. *Child Care in Practice, 13*(4), 401–416.

Teich, J., Robinson, G., & Weist, M (2007). What kinds of mental health services do public schools in the United States provide. *Advances in School Mental Health Promotion*, *1*, 13–22.

Test, D., Aspel, N., & Everson, J. (2006). *Transition methods for youth with disabilities.* Columbus, OH: Pearson Merrill Prentice Hall.

Test, D., Mazzotti, V., Mustian, A., Fowler, C., Kortering, L., & Kohler, P. (2009). Evidence-based secondary transition predictors for improving postschool outcomes for students with disabilities. *Career Development for Exceptional Individuals*, *32*, 160–181.

Trussel, R. (2008). Classroom universals to prevent problem behaviors. *Intervention in School and Clinic*, *43*, 179–185.

U.S. Department of Education, Institute of Education Sciences, What Works Clearinghouse (2015). *Check & connect (Dropout prevention).* Retrieved from: http://ies.ed.gov/ncee/wwc/pdf /intervention_reports/wwc_checkconnect_050515.pdf