

“Invisible” Disabilities: Identity Management and Well-Being in College Students

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Abstract

The present study aimed to quantify relationships between internal and external identity management and well-being in individuals with two types of invisible disabilities: learning disabilities and a history of mental health problems. Participants were 111 college students (ages 18-52; 64% women) recruited via email lists who self-identified as having an invisible disability. Participants completed surveys measuring levels of internal identification with disability, outness about the disability, self-esteem, and self-determination. Correlational analysis revealed significant relationships between dis-identification with disability and both self-esteem and self-determination in students with invisible disabilities ($p < .001$, $p = .006$, respectively). The results highlight the stigmatizing effects of diagnostic labels for students with invisible disabilities and the need for a multidimensional scale to measure identification with disability.

“Invisible” Disabilities: Identity Management and Well-Being in College Students

The term “invisible disabilities” can refer to a wide range of cognitive, neurological, and emotional dysfunctions and/or disorders. For the purposes of the present study we define an invisible disability as a mental health problem or a learning disability. Persons with invisible disabilities represent a significant minority of the U.S. population (Kring, Davison, Neale, & Johnson, 2007) and these people are often in need of counseling, accommodations, and other services. However, too little is known about how best to develop and deliver these services. People with invisible disabilities face an additional challenge in gaining access to such support in that their disabilities often go unnoticed, and the legitimacy of the limitations they experience are often not fully recognized by others. Learning about the unique challenges that people with invisible disabilities face, and how the integration of these experiences into their identity affects their well-being, is vital to the improvement of services for this population.

Receiving a diagnosis of a learning disability or mental health problem places an individual within a group that is both invisible and stigmatized, and the negative implications of this categorization warrant specific attention from psychologists. Society places a high value on mental abilities and thus, labeling disruptions in cognitive and emotional functioning broadly devalues the person receiving the label (Olney & Kim, 2001). Based on this idea, it is possible that if a person’s mental abilities indicate his or her value as a person, then people with learning disabilities or mental health problems can suffer as a result of being perceived as fundamentally defective, unintelligent, or “crazy.” Link, Struening, Neese-Todd, Asmussen, and Phelan (2001) demonstrated a connection between perceived societal stigma regarding mental illness and fear of rejection and low self-esteem in people with such diagnoses. Heyman (1990) showed that the formation of a positive self-concept in children with learning disabilities is strongly dependent on

acceptance and support within children's environments. Without acceptance and support, these children may generalize their academic difficulties to other areas of competence, resulting in lower self-esteem. Clearly, the misunderstanding of invisible disabilities has wide implications for how one is viewed by society, which in turn affects how one views oneself.

The purpose of the present study is to expand previous research on issues of identity management and well-being in order to provide new and useful information to service providers and counselors for their work in supporting individuals with invisible disabilities. Prior research on identity management in people with disabilities has not fully addressed the complexity of how an individual integrates a disability into his or her identity. Such research has focused broadly on many types of disabilities (Olney & Kim, 2001), or narrowly on specific diagnoses (Anderson, Asher, Clark, Orrick, & Quaison, 1979); it also tends to have been primarily qualitative and exploratory (Olney & Kim, 2001; Anctil, Ishikawa, & Scott, 2008). In the present study, we seek to address gaps in the research by uniquely combining three approaches. Firstly, we strike a middle ground between broad and narrow by studying multiple kinds of disabilities while at the same time only focusing on those which share a very important feature— invisibility to the general population. Secondly, we examine multiple issues this population faces; these include both internal and external identity management, and how these relate to certain aspects of well-being. And thirdly, we collect and analyze survey data in an attempt to quantify the relationships between these variables. Although we recognize the universality of some of the struggles experienced by people with disabilities (e.g., issues of identity formation and management, as well as the matter of how to live a fulfilling life of which disability is a part) these particular concerns are unique and nuanced in people with invisible disabilities. Some of the issues presented by living with an invisible disability include both external and internal

identity management and the relationships these have with certain aspects of well-being, particularly self-esteem and self-determination.

Internal and External Identity Management

The integration of a disability into identity is a highly complex process with multiple dimensions. Olney and Kim (2001) conducted a qualitative study involving focus groups in which they explored the formation of identity in relation to disability in college students with cognitive disabilities. The disabilities of the majority of participants were invisible in nature and included neurological disorders (e.g., ADHD, traumatic brain injury), learning disabilities (e.g., dyslexia, perceptual disabilities) and mental health problems (e.g., depression, anxiety disorder). One dimension of identity formation and integration that Olney and Kim focus on is identity management. Based on their analysis they suggest this dimension has two subthemes: self-disclosure of one's disability to other people and the meaning disability has for oneself and within one's own life. In the present study, we explore these two subthemes and refer to them as external and internal identity management. External identity management can be examined by measuring the degree to which a person is "out" about his or her disability (that is, how much a person self-discloses to others about the disability). Internal identity management relates to how much individuals identify or dis-identify with their disabilities personally.

External identity management: Outness with regards to disability. An aspect of external identity management that is unique to individuals with invisible disabilities is the degree to which a person is out about his or her disability (Olney & Kim, 2001; Pachankis, 2007; Quinn, Kahng, & Crocker, 2004). "Outness" refers to the extent to which individuals disclose the existence of, or openly talk about, their learning disability or mental health problem with people in their lives. Since invisible disabilities are not readily recognizable to other people, individuals

with invisible disabilities have a greater degree of choice in deciding the extent to which they reveal their disabilities than those with visible disabilities.

Disclosure of a disability to other people is often a significant decision for many individuals with learning disabilities and mental health problems because of the stigmas attached to such labels. Olney and Kim (2001) found that for participants in their study, this decision depended largely on the degree of comfort and closeness experienced in relationships with others. Participants in this study reported fears that disclosure would lead others to perceive them one-dimensionally in terms of their disability, and others noted that they found needing medications or accommodations to be especially stigmatizing. These concerns were not unjustified as participants reported real consequences for revealing their disabilities. Such consequences included discrimination, responses that were patronizing, or responses that minimized the significance of the challenges posed by the disability (Olney & Kim, 2001). This provides evidence that revealing identification with a stigmatized group can have negative consequences regarding the way one is perceived and treated by others.

Revealing a history of mental illness can have consequences for individuals in another way by increasing susceptibility to stereotype threat (Quinn et al., 2004). Stereotype threat occurs when negative stereotypes regarding the intellectual capabilities of a stigmatized group exist and are made salient in a certain situation, and the members that identify with that group demonstrate a decrease in performance on measures of intellectual ability. Quinn et al. examined how participants with a history of mental health problems responded to a situation of stereotype threat in which they revealed their mental health histories just prior to taking a test. The results suggest that revealing the stigmatized identity of having a mental health problem can have an adverse effect on test performance. This effect becomes even stronger when the test is described

as diagnostic of one's abilities because this increases the salience of one's mental health problem. These findings provide further evidence that revealing identification with a stigmatized group can have negative psychological consequences.

While there is evidence that revealing a stigma may have significant negative consequences, Pachankis (2007) proposes a research-based model of the psychological effects of concealing a stigma, which suggests that concealment may also have negative behavioral and self-evaluative consequences. Goffman (1963) suggests that concealing a stigma requires individuals to put a tremendous amount of energy into both preventing stigma exposure, as well as self-presentation repair when exposure does occur (as cited in Pachankis, 2007). In an effort to prevent exposure or rejection, these individuals may avoid certain social situations, and miss out on opportunities to receive social support.

Although concealing a stigma may allow individuals to avoid direct discrimination, awareness of society's negative views associated with the stigmatized identity can still affect such individuals. This concealment can create an inconsistency between how individuals view themselves internally and how they present themselves to society. This may result in an inconsistent understanding of self across different situations (i.e., identity ambivalence), as well as a negative self-concept (Pachankis, 2007). In fact, Frable, Platt, and Hoey (1998) suggest that people with concealable stigmas may have lower self-esteem than those with visible stigmas (as cited in Pachankis, 2007). Thus, it is evident that for many individuals, the option either to reveal or to conceal an invisible disability is a significant decision where both choices may have significant negative consequences.

In addition to the implications regarding test performance, behavior, and self-evaluation, another significant aspect of being out about one's disability is the degree to which a person

receives support and acceptance after revealing the disability. This support or lack thereof has bearing on a person's psychological well-being. Heyman (1990) reports on the importance of acceptance from parents, teachers, siblings, and peers for children with learning disabilities to form a positive self-concept and maintain a high level of self-esteem. Without such acceptance, children are likely to generalize their academic difficulties to other areas of competence, significantly impacting their self-esteem (Heyman, 1990). Being out about a disability can then be seen as a double-edged sword—concealing it can be psychologically taxing, but admitting its existence without the support and acceptance of others can be equally damaging to one's well-being.

Internal identity management: Degree of identification with disability. An important aspect of internal identity and self-perception of one's disability is the degree to which an individual identifies or dis-identifies with his or her disability. Many different studies have examined different aspects of this "degree of identification" within a variety of stigmatized groups including individuals with visible and invisible disabilities (Anderson et al., 1979; Mcvittie, Goodall, & McKinlay, 2008; Nussbaum & Steele, 2007; Olney & Kim, 2001). In contrast with the concept of outness, internal identification is a dimension of identity that individuals with invisible and visible disabilities share.

Wright (1960) proposes that the degree to which an individual's acceptance of physical disability fits into his or her concept of self exists on a theoretical spectrum. On one end of this spectrum, the term *spread* represents maximum identification with disability, in which the disability is an exaggerated component of a person's identity. On the opposite end of the spectrum, the term *isolation* represents minimal identification with disability, in which the disability is a separate or even denied component of a person's identity. The term *containment*

represents the middle of the spectrum, in which a person has a realistic perception of his or her disability that includes acknowledgement of its limitations without an exaggeration of its role in his or her identity. Wright suggests that a containment conception of disability promotes the healthiest adjustment to disability.

Degree of identification with disability has been shown to have significant implications for people with both visible and invisible disabilities. In their study, Anderson et al. (1979) measured the degree of identification with a physical disability using the *Attitudes Toward Disability Test* (ATDT) developed by Brontrager (1965), and modeled after Wright's (1960) spectrum of responses to disability. Anderson et al. suggest that in comparison with two other factors (severity of disability and maternal attitudes toward disability), degree of identification with disability was the most predictive factor of adjustment in adolescents with idiopathic scoliosis (a clearly visible disability). The present study extends this research to another population by using a version of the ATDT modified for people with *invisible* disabilities.

Although Wright's (1960) theoretical spectrum has not specifically been applied to invisible disabilities, research suggests that the concepts of spread, containment, and isolation may apply to people with invisible disabilities. In Olney and Kim's (2001) study involving people with invisible disabilities, some participants had difficulty listing things they could do well without impediment from their disability, which may be evident of over-identification with disability (i.e., spread). Over-emphasizing disability may potentially occur as a counteracting response to people who minimize the significance of the challenges these individuals experience, especially for individuals with invisible disabilities (Cordaro & Shontz, 1969; Olney & Kim, 2001). Conversely, other participants in Olney and Kim's study perceived their disabilities as separate from, rather than a part of, their concepts of self. This dissociation is evidence of dis-

identification with disability (i.e., isolation). These individuals described their disabilities as exterior obstacles that had to be overcome in a practical sense, but not as defining parts of their identities (Olney & Kim, 2001). In a similar study, McVittie et al. (2008) interviewed members of a community center for individuals with learning disabilities. Participants resisted comparisons with, and differentiated themselves from, other people with learning disabilities; they also emphasized their similarities to people without disabilities. These responses indicate an even greater level of dis-identification with disability in that these participants almost fully deny the effects of their disabilities.

Olney and Kim (2001) describe the development of identity in relation to an invisible disability as a conflicting process in which a person must reconcile the coexistence of both disability and ability within one identity. In contrast with those who resolve this conflict by either dis-identifying or identifying with their disability, some individuals may resolve this conflict by developing a perception of their disability as an integrated component of their identity. These individuals, who fall closer to a containment coping response in the middle of Wright's (1960) theoretical spectrum, accept their limitations and recognize their strengths. For some participants in Olney and Kim's (2001) study, part of accepting limitations involved grieving the loss of certain life plans, loss of self-esteem, or perceived loss of competence in the eyes of authority figures. In recognizing their strengths, some participants were able to draw connections between their disability and special abilities, such as greater levels of creativity or a greater capacity to empathize with others after having experienced adversity themselves. Thus, research provides evidence that Wright's conceptions of spread, isolation and containment may exist as part of identity formation in relation to invisible disabilities.

Degree of identification is a factor that may also have significant implications for certain aspects of adjustment and well-being in people with invisible disabilities. Heyman (1990) examined how identifying with a disability, if not coupled with the support of others, can be detrimental to self-esteem. At times when they are asked to reveal (and therefore identify with) their invisible disabilities, participants may become subject to the detrimental effects of stereotype threat (Quinn et al., 2004). This impacts their performance, and according to Quinn et al., also increases feelings of depression. In some cases where individuals may find it difficult to receive adequate support as they identify with their disability, a solution may be to choose not to identify with the disability. Nussbaum and Steele (2007) reported that in situations where one's stereotyped identity is likely to threaten success, temporarily disengaging from this identity can in fact enhance performance. Because failure on a task is likely to decrease feelings of self-esteem, this finding suggests the possibility that dis-identifying with a stereotyped and devalued identity, like an invisible disability, may protect participants' levels of psychological well-being. Self-esteem, a broad measure of overall psychological well-being, is thus affected by the way in which individuals with disabilities relate to their disabilities.

Anctil et al. (2008) used their study to construct a model of academic success in college students with learning disabilities. According to Anctil et al., success for such students is achieved through a multistep process that enhances feelings of self-determination. This process involves persistent effort in the face of adversity, which enhances competence, which allows students to thoughtfully consider realistic career options for themselves. Self-determined individuals with disabilities are able to advocate for themselves to receive the services and accommodations they need. Thus, measuring self-determination can function as a more outward indication of well-being (as contrasted with self-esteem, which is largely internal and affective)

because it is reflected in behaviors that are likely to be beneficial for individuals with disabilities. In some cases then, directly facing the challenges and limitations posed by one's disability can enhance feelings of self-determination and contribute to overall well-being.

In the present study, we have chosen to measure both self-esteem and self-determination as indicators of well-being in individuals with disabilities. Self-esteem is a widely used construct for indicating internal positive or negative feelings about oneself (Heyman, 1990; Link et al., 2001; Quinn et al., 2004). Self-determination measures outward, self-advocating behaviors that promote academic, social, and/or occupational success in persons with invisible disabilities (Anctil et al., 2008). Having discussed several issues that individuals with invisible disabilities face, we now turn to the specifics of the population we have chosen to study.

Operational Definitions and Population

Crastnopol (2009) provides a concise definition of invisible disabilities: "where cognitive and emotional processing are disrupted, but there may be no overt physical manifestation of disorder" (p. 474). Crastnopol further describes invisible disabilities as "moving targets" (p. 477) in that their manifestations may change over time, requiring different treatments and coping strategies. To address this complexity in the present study, we created two different operational definitions of invisible disability. The first definition is: having a documented learning disability. This definition focuses primarily on the cognitive disruptions of invisible disabilities. The second definition emphasizes the ways in which invisible disabilities are emotionally disruptive and fluctuate over time; we define an individual as having an invisible disability if he or she has ever received a prescription for medication of a mental health problem. To clarify, it is not necessary for a person to be currently taking psychiatric medication under this definition; a *history* of mental health problems is enough to make the diagnostic label a feature of one's

identity. Furthermore, the perceived need for psychiatric medication (at any point in a person's life) indicates a significant and impairing level of emotional disruption that we believe qualifies as a disability. The documentation of a learning disability and the prescription of medication for a mental health problem are important because they both have the effect of labeling a person. In both cases, someone has recognized the impairment of functioning (either the individual in question, or a parent/guardian), and a professional has confirmed it. We have chosen to define invisible disabilities this way in an attempt to address their elusive nature, and also because diagnostic labeling carries significant implications.

Though we recognize that all people with invisible disabilities must work to integrate the disability into their identities both internally and externally, the present study focuses on college students with invisible disabilities for two main reasons. Firstly, the stresses of college are likely to make the effects of both types of invisible disabilities particularly salient. The emphasis on learning and academic pursuits, the transition to new support systems, the high amounts of stimulation, and commonly, sleep deprivation, may all make managing the effects of a learning disability or mental health problem more challenging (Olney & Kim, 2001). Secondly, managing such challenges often requires an individual to seek out counseling, academic accommodations, and other types of support (Anctil et al., 2008). This process forces an individual to make decisions regarding outness (i.e., external identity management), and may alter the way an individual sees the disability's role in his or her life (i.e., internal identity management).

Hypotheses and Rationales

The qualitative findings of the studies by Olney and Kim (2001) and Anctil et al. (2008) imply that a realistic recognition of one's strengths, as well as acceptance of one's weaknesses, is

an important component of developing a positive identity in relation to an invisible disability. These findings support the implication of Wright's (1960) theoretical spectrum that a containment degree of identification with a physical disability promotes the healthiest adjustment to disability. Research findings by Anctil et al., Anderson et al. (1979), and Heyman (1990) also suggest that self-esteem and self-determination are important components of healthy adjustment and success in people with disabilities. These findings, and a few key assumptions, form the basis of our first two hypotheses. Namely, we assume that the qualitative findings of Olney and Kim can be reflected quantitatively, and that Wright's theoretical spectrum can be applied to individuals with invisible disabilities. Therefore, we make the following predictions: (1) scores of strong identification or strong dis-identification with disability (e.g., spread and isolation scores, which represent the two extremes of Wright's spectrum) will negatively correlate with measures of self-esteem and self-determination; and (2) containment scores (which represent the middle of Wright's spectrum) will positively correlate with measures of self-esteem and self-determination.

In addition to testing these two hypotheses, the present study also explores two research questions. Pachankis (2007) reported that concealing a stigma can have a variety of negative behavioral and self-evaluative consequences. Yet, the findings of Quinn et al. (2004) suggest that revealing a stigma can have negative effects on self-esteem and test performance. Since these findings regarding outness are somewhat inconclusive and contradictory, the present study makes no predictions regarding the relationship between outness and well-being. Rather, we investigate the following two questions: (1) Does outness (external identity) correlate with identification with disability (internal identity) or are these two aspects of identity relatively

distinct constructs? and (2) If outness does mirror degree of identification with disability, does it similarly correlate with measures of self-esteem and self-determination?

Method

Participants

Participants were 111 undergraduate and graduate students attending three different colleges/universities in the Pacific Northwest¹ who completed an anonymous online survey. Participants were 64% women and 36% men, with a mean age of 24.8 years (range 18-52 years). Fifty-nine percent of participants indicated having a documented learning disability while 41% indicated a history of mental health problems. A significant portion of participants (48%) indicated having both a learning disability and a mental health problem; participants who did not indicate having either were automatically excused from the survey ($n = 45$). Of the 249 responses to the survey, 111 surveys (44%) were complete and used in statistical analysis. Complete demographic data is given in Table 1.

Recruitment took place via email lists to the general campus population at each school; students received an email briefly outlining the purposes of the study that also contained a link to the survey and an invitation to participate. To reach our target population more specifically, we also channeled emails to students with learning disabilities through each campus's office of academic resources/disability services. One of the schools also had an email list specifically for students with mental health problems, and we recruited participants through this list as well. Data collection lasted for three weeks.

¹A private liberal arts college, a state university, and a religiously affiliated university.

Measures

Degree of identification with disability. We used an adapted version of the *Attitudes Toward Disability Test (ATDT)*² (Bontrager, 1965) to measure degree of identification with disability. The original version of this test includes 20 items designed to measure the degree to which a person identifies with his or her physical disability. Because the language of this measure is disability-specific, we chose to adapt it into two different versions—one for learning disabilities and one for mental health problems. In doing this, we decided not to include four items that dealt with issues that are irrelevant to our population (e.g., items that are based on the assumption that the respondent’s disability is visible). Also, in the interest of keeping our survey from becoming too long, we did not include the three neutral, unscored items in either version. The final versions of this measure then each contained 13 items. See Appendices B and C for the two adapted versions of this test.

The items in this measure each consist of three statements. Respondents rank the statements on a three-point Likert-type scale (1 = *most true for you or you most agree with*, 3 = *least true for you or you most disagree with*). Each statement corresponds to one of three categories of identification: spread, containment, or isolation (these are indicated in the appendices with the letters Sp, C, and Is, respectively). Spread represents maximum identification with the disability (e.g., “I really regret my mental health problem; it has been one

² A note on terminology: Some students regard the term “learning disability” as offensive, preferring instead to use the term “learning difference.” However, in our efforts to operationalize the variable “invisible disability”, we only included participants in this study who identified as either having a documented learning disability or a history of mental health problems (defined as having ever received a prescription for medication to treat said problems). We chose these definitions because each reflects not just an acknowledgement by the person in question that there is an issue, but also a professional’s judgment that, indeed, an invisible disability exists in that particular case. However, out of respect for our participants, we chose to use the term “learning difference” within the language of our survey. Thus, in the present study, “learning difference” and “learning disability” are interchangeable.

of the most terrible things that could have happened to me” or “Having a learning difference, I am a burden to others”). Containment represents a moderate level of identification with disability (e.g., “Of course I wish I didn’t have a mental health problem, but I know I can adjust to it” or “Although I have a learning difference that makes me sometimes need the help of others, I can still do important and valuable things”). Isolation represents dis-identification with disability (e.g., “Frankly, my mental health problem hasn’t seemed to make much difference” or “Despite my learning difference, I can take care of myself just as well as any other person can take care of his or herself”).

Scores on this test are found by reverse coding (1 becomes 3, and 3 becomes 1), and totaling the numbers assigned to statements representing each of the three identifications: isolation, containment, and spread. Each of these totals becomes a subscore with a range of 13-39, where higher numbers indicate stronger endorsement of either isolation, containment, or spread. The overall score for the ATDT is found by subtracting the isolation subscore from the spread subscore. Final scores can range from -26 (maximum isolation) to +26 (maximum spread).

To test the reliability of this measure, we computed Cronbach’s Alpha for each of the three subscores on both versions of the ATDT. For the mental health problems version of this test, we found Cronbach’s Alphas of .84, .88, and .88 for isolation, containment, and spread subscores respectively. On the learning disabilities version, we found Cronbach’s Alphas of .78, .76, and .86 for isolation, containment, and spread subscores.

Outness in regard to disability. For this variable we used a version of the *Outness Inventory for Sexual Orientation (OI)* (Mohr & Fassinger, 2000) which we adapted to measure the degree to which an individual is out about his or her disability. The OI is designed to

measure the extent to which respondents disclose and openly talk about their sexual orientation with people in three different spheres of their lives. The scale consists of 11 roles that constitute three spheres: family (mother, father, siblings, extended family and relatives), the world (old heterosexual friends, new heterosexual friends, strangers, work peers, work supervisors), and religious community (members and leaders of one's religious community). To measure more subtle differences in degree of outness than just direct verbal self-disclosure of sexual orientation, the measure is designed as a 7-point Likert-type scale (1 = *person definitely does not know about your sexual orientation status*, 7 = *person definitely knows about your sexual orientation status, and it is openly talked about*) where participants indicate their level of outness by choosing a number from one to seven.

For use in our study, we adapted the OI to measure the extent to which respondents disclose and openly talk about their learning disability or mental health problem with people in their lives. In our adapted version of the OI, we reduced the family sphere portion to include only the extended family and relatives. Because many learning disabilities and mental health problems are diagnosed when an individual is young and still living at home, and this diagnosis may in fact be initiated by one's parents, we excluded the immediate family (mother, father, and siblings) in measuring participants' outness about their invisible disabilities. Within the world sphere portion, we changed the roles of new/old heterosexual friends to simply new/old friends. We also changed the religious community sphere, which consisted of members and leaders of one's religious community, to the academic sphere which consists of classmates and professors respectively—this seemed more appropriate for a population of students. Additionally, we created two versions of Likert-type scales: one for respondents with learning disabilities (1 = *person definitely does not know about your learning difference*, 7 = *person definitely knows*

about your learning difference, and it is openly talked about), and one for respondents with mental health problems (1= *person definitely does not know about your mental health problem*, 7 = *person definitely knows about your mental health problem, and it is openly talked about*). See Appendices D and E for the adapted versions of the Outness Inventory.

This test is scored by totaling the numbers of the participants' responses for all of the roles. Higher scores indicate a greater degree of outness, whereas lower scores indicate a lesser degree of outness. Previous literature (Mohr & Fassinger, 2000) has reported internal consistency reliabilities for this scale of as ranging from $\alpha = .74$ to $\alpha = .97$. We computed Cronbach's Alpha for both versions of this our adapted version of this test and found that $\alpha = .86$ for the mental health problem version and $\alpha = .71$ for the learning disabilities version.

Self-esteem. To measure self-esteem, we chose the *Rosenberg Self-Esteem Scale* (Rosenberg, 1979). On this test, participants indicate how much they agree or disagree with 10 statements such as "I feel I do not have much to be proud of" on a 4-point Likert scale (1 = *strongly agree*, 4 = *strongly disagree*). The scale consists of five positively keyed items and five negatively keyed items. Each item is coded so that higher numbered scores indicate higher self-esteem and lower numbered scores indicate lower self-esteem, and the total self-esteem score is the sum of these numbers. See Appendix F. Previous literature (Richardson, Ratner, & Zumbo, 2009) has reported Cronbach's Alpha for this scale ($\alpha = .84$); we found similar results for our sample where $\alpha = .89$.

Self-determination. We used the Self-Determination subscale of the *Personal Opinions Questionnaire (POQ)* (Bolton & Brookings, 1998) to measure self-determination, which is the degree to which a person "stands up for one's rights, expresses opinions without hesitation and makes decisive choices, often preferring creative solutions" (p. 136). The POQ is designed to

measure four components of interpersonal empowerment in individuals with disabilities:

Personal Competence, Group Orientation, Self-Determination, and Positive Identity as a Person with a Disability. The POQ was developed using a population of participants with a wide range of disabilities, including 20% with learning disabilities and 5% with mental health problems.

The Self-Determination subscale is a 14-item self-report instrument. Participants indicate whether or not they believe statements such as “I am not afraid to stand up for my rights” accurately describe them by choosing T (*True*) or F (*False*). The scale consists of five positively keyed items and nine negatively keyed items. We gave one point for every True response to positively keyed items and one point for every False response to negatively keyed items. We then added these points to calculate the self-determination score in which higher scores indicate higher self-determination, while lower scores indicate lower self-determination. See Appendix G. Previous literature (Brookings & Bolton, 1998) has reported internal consistency reliabilities for this scale of as ranging from $\alpha = .80$ to $\alpha = .89$; we found similar results for our sample for which $\alpha = .80$.

Procedure

We collected data through the use of online survey technology: surveymonkey.com. This interface was most appropriate for our purposes in that it is both simple to use and sophisticated enough to channel participants to various versions of survey measures based on whether they identified as having a learning disability or history of mental health problems. We measured the following variables: degree of identification with disability, disability outness, self-esteem, and self-determination.

Students at the schools where we recruited received an email via email lists describing the study and inviting them to participate anonymously by clicking a link to the survey included

in the email. This link directed students to an informed consent statement, which students signed electronically by checking a box on the screen. After providing informed consent, participants answered seven demographic questions asking them to identify their school, gender, age, type of invisible disability, and number of years since diagnosis. The survey automatically excused students from the study who did not identify as either having a documented learning disability or having ever received a prescription for medication to treat a mental health problem. We asked students who indicated having both a learning disability and a mental health problem to choose the one that, to them, seemed most pertinent to their identity. To avoid excessive wordiness in the survey, the survey channeled students to either the learning disability or mental health problem version of the survey according to identified type of invisible disability. Demographic questions are given in Appendix A.

After the demographic questions, participants completed all four survey measures: the Attitudes Toward Disability Test (ATDT), the Outness Inventory, the Rosenberg Self-Esteem Scale, and the Self-Determination subscale of the POQ. Next, the survey included an open response question asking participants if there was anything else they would like to share with the researchers regarding their experiences with invisible disabilities. This question served three purposes: a means for participants to offer feedback regarding the survey, an opportunity for participants who wished to further express themselves, and a chance for the researchers to incorporate personal narratives into the study. The last page of the survey thanked students for their participation and included the contact information of the researchers should any questions or concerns arise. The survey did not record IP addresses of participants, nor did it ask for any personally identifying information. On average, participants took 10-20 minutes to complete the study.

Results

We analyzed all correlations between variables using two-tailed Pearson Correlation tests. See Table 2 for variable means and standard deviations and Table 3 for all correlation coefficients. Our first hypothesis was that extreme scores of identification at either the isolation or spread ends of Wright's (1960) spectrum would negatively correlate with measures of self-esteem and self-determination. We found that isolation scores positively correlated with self-esteem, $r = .52, p < .001$ and that spread scores negatively correlated with self-esteem, $r = -.63, p < .001$. That is, participants who identified strongly with isolation had higher self-esteem, while participants who identified strongly with spread tended to have lower self-esteem. With self-determination, we found a similar pattern: isolation scores positively correlated with self-determination, $r = .26, p = .006$ and spread scores negatively correlated with self-determination, $r = -.39, p < .001$. This indicates that participants who identified more strongly with isolation tended to be more self-determined than participants who identified strongly with spread.

Our second hypothesis was that containment scores would positively correlate with measures of both self-esteem and self-determination. We noted that containment scores across participants were generally high; given a possible range of 13-39, the mean containment score was 31.7, $SD = 5.09$. Containment positively correlated with self-esteem, $r = .24, p = .011$, but the correlation between containment and self-determination failed to reach significance, $r = .14, p = .157$.

We asked two research questions regarding outness. First, we asked whether or not there is a significant correlation between outness and identification with disability (as measured by the OI and the ATDT), or are these two aspects of identity relatively distinct constructs? The

correlation between outness scores and ATDT scores was nonsignificant, $r = -.05$, $p = .636$. These results suggest that there is no significant relationship between outness and identification with disability. Second, we asked whether outness scores correlate with self-esteem and self-determination scores. The correlation between outness scores and self-esteem was nonsignificant, $r = .12$, $p = .201$. The correlation between outness scores and self-determination scores was significant, $r = .19$, $p = .043$. That is, students who were more out about their disabilities were also more self-determined than less out individuals.

Discussion

Our first hypothesis was that scores of isolation and spread on Wright's (1960) spectrum of disability identification would negatively correlate with measures of self-esteem and self-determination. We found only partial support for this hypothesis. Spread scores did indeed negatively correlate with self-esteem and self-determination, but both of these positively correlated with isolation scores. Secondly, we hypothesized that containment scores on Wright's spectrum would positively correlate with self-esteem and self-determination scores. We found partial support for this hypothesis as well; we did find a positive, though weak, correlation between containment and self-esteem, but the correlation between containment and self-determination was nonsignificant. In general, we found that an isolation identification, rather than containment, corresponded with the most positive psychological outcomes—high self-esteem and high self-determination. There are several possible explanations for these findings, particularly the strong positive correlations between isolation and self-esteem and self-determination.

One possible explanation is that what qualifies as isolation or containment may be different for students with different types of invisible disabilities, depending on the degree to which the disability's effects can be managed or made less salient by medication. Medication is one factor that we did consider in the present study, which may have convoluted our findings. For example, although ADHD can have seriously detrimental effects on students, if those students are receiving adequate and effective medication, it seems reasonable that they would be more likely to downplay the negative effects of the disorder and identify as isolators on Wright's (1960) spectrum. In the survey's free response question, one participant noted the effects of medication by saying, "My college life was absolute hell until I was diagnosed and started on med[ication]s. I'm now much happier and much more empowered" (female, 25). Students who have had episodes of major depression or students with anxiety disorders may similarly benefit from medication. However, in the case of other disabilities, like dyslexia, medication is not available. These students may receive academic accommodations or use specialized reading software, but these aids do not make the disability's effects less salient. Though these nonmedicated types of disabilities can certainly be managed and controlled to a great extent, this usually requires persistent, conscious effort on the part of the individual. Several participants highlighted the effort required in dealing with one's invisible disability; one said, "I have spent so much of my life trying to just get through school that there is no time for me, time for me to know me, express myself, live the way I want to" (female, 23). Another participant wrote, "I think you must be more disciplined with yourself than other, more 'normal' people" (female, 26). This same persistent effort is not necessarily required from individuals who can successfully be treated with medication. We did not code for or analyze differences between disability types, but perhaps the availability of medications for managing invisible disabilities

convoluted our findings. Students who endorsed an isolation style of identification who also had high self-esteem and self-determination could in reality be “containing” the effects of their invisible disabilities through medication.

A second explanation for the positive correlations between isolation and self-esteem and self-determination could be that college students are more likely, in general, to choose an isolation style of identification with disability than their nonstudent peers. None of the participants in the present study strongly identified with spread; the maximum spread subscore for any participant in the present study was only 21 (from a possible range of 13-39). It is possible that college students with invisible disabilities are more driven to dis-identify with the effects of their disabilities because of the challenges posed by college lifestyles (e.g., high amounts of stimulation, and the frequent need to readjust one’s schedule and coping strategies) and the academic demands of completing a higher degree. Invisible disabilities certainly make achieving a degree more difficult, and perhaps identifying strongly with those challenges is psychologically threatening and likely to cause a student to doubt his or her own competence. In other words, for a person with an invisible disability to take on the rigors of higher education, dis-identification with disability may be the best way for him or her to be successful as a student.

The present study also explored two research questions regarding outness about disability. That is, we asked whether outness (external identity management) parallels identification with disability internally. We found no correlation between these two variables as measured by the Outness Inventory and the ATDT. This finding suggests that these two aspects of identity operate independently and thus are relatively distinct constructs. We also asked whether or not correlations exist between outness and two measures of well-being in individuals with invisible disabilities: self-esteem and self-determination. We found no correlation between

outness and self-esteem, and only a small correlation between outness and self-determination. There are several possible explanations for these findings.

The lack of significant relationship that we found between outness and internal identification is consistent with Olney and Kim's (2001) conception that two components of identity management (i.e., internal and external identity) exist for people with invisible disabilities. While the decisions around the disclosure of one's disability to other people have to do with how one chooses to present the disability to the world, the degree of identification with disability has to do with how one views the meaning the disability has for oneself and within one's own life. One possible interpretation of our findings is that these two spheres of identity may in fact operate independently; that is, people's decisions around disclosure of their disability to other people may not reflect the degree to which they view their disability as being a part of their identity. Responses to the survey's final question reflect this duality; participants recognized the significance of their struggles and identified with their disabilities, but chose not to discuss them openly. One participant said:

I have found it hard to differentiate the myths and stigmas of my learning disability from myself and who I really am. It is the reason why I don't share the fact about me with anyone outside my family. It may get in my way to show you who I am, yet I don't think it defines me; so I don't define myself with it. However, this learning difference makes a whole world of difference in school. I feel like a very capable and intelligent human being, I don't know how anyone else will really ever see that or understand my enormous capacity; but, even when I wish I could find a way to do such, I really would like to just find happiness, acceptance, and love alone, within myself. (female, 23)

Other participants also exemplified this conflict between how they felt about themselves, and how to present themselves to the outside world, indicating the presence of two forms of identity management.

Previous research on the effects of concealing a stigma on various measures of well-being have been mixed. The findings of Quinn et al. (2004) suggest that revealing identification with a stigmatized group can have negative psychological consequences. However, Pachankis (2007) argues that concealment of a stigmatizing identity can have harmful social and psychological effects due to both the effort required to prevent exposure of a hidden stigma, and the inconsistency across internal and external identity created with such a concealment. In fact, one participant said that she felt she would be under less stress if her disability was visible to others, and that the act of concealing it made it harder to manage. The positive correlation we found between outness and self-determination may support Pachankis' theory; being out about one's disability may indeed have positive effects on self-determination, which is one important aspect of well-being. However, the directionality of this relationship cannot be determined from the present findings. It is also possible that having high self-determination, particularly in an academic setting, may require a person to be more out about his or her disability in order to acquire the resources and support needed to be successful. Thus, it cannot be determined from the present findings whether greater outness increases self-determination, vice versa, or a mixture of the two.

One possible explanation for the lack of correlation between outness and self-esteem in our findings is that there may be great variation in people's experiences with disclosing their disabilities to other people. This variation may confound the relationship between outness and self-esteem. Disclosing one's disability can result in either positive consequences, like receiving

social support and access to accommodations/resources (Pachankis, 2007), or negative consequences, like discrimination, or responses that are rejecting, patronizing or that minimize the significance of the challenges posed by the disability (Olney & Kim, 2001). Participants reported both kinds of consequences of disclosure in the survey's free-response question with statements like:

The attitudes of teachers, advisers, [and] other staff make all the difference in my education. If not for their acceptance and the freedom they allow me to find what works for me, even if unorthodox, I would not be in school. Simple as that. (female, 29)

Every time I have disclosed my illness outside my family and my closest friends, I have regretted it. (male, 45)

I have heard so many times things like... "everyone does that or feels like that." They don't understand that it is exacerbated in someone like me. (female, 37)

The consequences one experiences as a result of disclosure may impact self-esteem, and future decisions regarding outness. That is, there may be a kind of feedback loop in which positive reactions of others to the person's self-disclosure increases self-esteem, which increases future outness, which then elicits more positive reactions to future self-disclosures. However, when the reactions of others to such disclosures are negative, this feedback loop may work in the other direction. Thus, whether a person experiences positive or negative responses from other people when choosing to disclose his or her disability may confound the relationship between outness and self-esteem. This may account for the nonsignificant relationship between outness and self-esteem found in the present study.

Implications

Our finding that dis-identification (isolation) with disability positively correlates with self-esteem and self-determination may actually provide evidence for the power of the stigma attached to learning disabilities and mental health problems. Our findings may reflect that there is enough stigma attached to these labels such that dis-identification with them actually has positive psychological consequences, while strong identification with these labels may have negative psychological consequences. This is consistent with the findings of Nussbaum and Steele (2007) who found that disengaging from a stigmatizing label could enhance performance on a task, and also with Quinn et al. (2004), who reported on the negative psychological consequences of identifying with a stigmatized group. One participant described the powerful damaging effects of stigma when he wrote:

I believe the stigma associated with mental health problems is the greatest obstacle society places in our path...It makes us less likely to seek help, to accept our diagnosis, and to follow our treatment plans. It pummels my self-esteem daily. (male, 45)

The ATDT is designed to measure degree of *internal* identification with disability (i.e., how one views the disability as a part of oneself), rather than a measure of *external* identification (i.e., how one presents the disability to the outside world). Thus, our findings show a positive correlation between internal dis-identification, rather than external dis-identification, and well-being. Since this dis-identification is taking place internally, it may be that the stigmas associated with learning disabilities and mental health problems have enough power to become internalized. Internalization of stigma is somewhat evident in the response of one participant who described her struggles with developing a negative self-perception with the stigma she faced in high school. She wrote:

I couldn't handle the fear and shame I felt everyday. I felt like I was a freak, an emotional wreck and that everyone else was perfect...My anxiety is often interpreted as incompetence and lack of intelligence even though I am pretty smart. (female, 26)

Although this participant is aware of her intelligence, she struggles to avoid viewing herself in terms of the negative stigma associated with her mental health problem; this provides further evidence for the power of the stigma attached to invisible disabilities.

In addition to suggesting that the stigma attached to mental health problems and learning disabilities may be very powerful, our findings also have important implications for clinicians and other professionals who work with this population. It may be important for such professionals to promote a positive outlook and identification with disability in their clients, in order to help "cushion" the potentially harmful effects of the stigma associated with these disabilities. Additionally, based on our findings that strong identification with disability (spread) is negatively correlated with self-esteem and self-determination, it may also be important for such professionals to encourage people not to identify with the stigma attached to such disabilities or allow the stigma to define their perceptions of their own capabilities. One participant describes a positive outlook on mental health problems that is not defined by the stigma attached to it when she writes:

I am still not completely sold on the idea that mental health issues are diseases, like cancer or something, that need to be "fixed."...Having a mind that leans more to depression or anxiety doesn't make you a freak or weak or less than anyone else, it just means you work a little differently. I also find that people with "mental health problems" tend to be some of the most intelligent, thoughtful, artistic, sensitive and generally

worthwhile people out there. Sometimes they just need a little assistance to help them balance. (female, 26)

It may be important for clinicians to promote these kinds of less pathologizing and more positive outlooks on disability, which allow patients to define what their disabilities mean for them outside of the constraints of societal stigma.

Limitations and Future Research

Limitations to the present research include the questionable validity of the ATDT, its generalizability to nonstudent populations, and its applicability to a full range of invisibly disabled persons.

Though we did find a high reliability with the ATDT, we are concerned with its validity. Some items on this test seem to be measuring, rather than identification/dis-identification with disability, one's positive or negative associations with the disability. That is, people who very strongly identify with disability on our adapted version of the ATDT are characterized by their endorsement of statements like, "I have suffered (or suffer) greatly from my mental health problem" or "My learning difference has changed my whole life for the worse and prevents me from having the most important things in life," which show a negative attitude toward disability. The issue with this scale is that there is no way for a respondent to both strongly identify with his or her disability (i.e., qualify as a spreader), and, at the same time, strongly positively identify with it. However, in the free-response question, many participants highlighted the positive aspects of their disabilities as both an important and special part of who they are; their statements were sometimes very forceful: "The concept of striving for 'Equality' with other students is a sad one-their average should NOT be my ideal. I strive for excellence not only as a student but as a

human being regardless of ‘learning differences.’” (male, 29) and at other times more ambiguous:

I am indecisive about my feelings toward my particular disability. I greatly dislike what it does to me... However, I also enjoy the benefits that come with being overly detailed and naturally observant...Part of me feels that, though I have a disability that negatively impacts my life, there are many positive things about it that I don't want to eliminate.

(female, 18)

One participant went so far as to say of her disability, “It’s my superpower,” (female, 21). A better scale of identification with disability would perhaps be multidimensional: one dimension could measure the strength of the identification with disability (i.e., how much the person views the disability as a significant component of his or her identity) and another would measure the positivity or negativity of this identification (i.e., to what degree the person views the disability as a helpful or detrimental aspect of his or her life).

Another limitation of the present study is its generalizability. We studied only students at institutes of higher education where individuals with learning disabilities are less represented than in the general population. A possible consequence of this is an artificially narrow range of identifications with disability. College students may in fact be more likely to isolate the effects of their disabilities because they have decided to pursue higher education in spite of the difficulties posed by their disabilities. People who strongly endorse spread on Wright’s (1960) spectrum are more likely to see themselves as incapable of completing a degree, and hence may not enroll in college at all. We recommend that future research expand the current study to nonstudent populations.

In the present study, we chose to investigate both people with mental health problems and people with learning disabilities in order to capture the emotional and cognitive elements of the concept of “invisible disability” as described by Crastnopol (2009). We also included some individuals with neurological disorders (e.g., ADHD, Asperger’s syndrome) who self-identified their disorder as either a mental health problem or a learning disability. We chose to include these individuals because we think that how a person defines or views his or her disability is a far more relevant factor to the study of identity than how the particular disability falls into a scientifically defined category. There are, however, limitations to this approach in that it does not show whether significant differences in identity management exist between these groups, and it does not fully encompass individuals who identify as having a neurological disability. Future research could more fully include individuals with neurological disorders, as well as compare these different groups to determine what kinds of differences in identity management may exist among them.

In addition to further investigation related to the different types of disorders that constitute invisible disabilities, two other important directions for future research follow from the present study. On issues of external identity, further exploration of the relationship between outness and self-determination is needed to determine the directionality of this relationship. Also, future investigation is necessary to determine whether the positive or negative consequences people experience as a result of disclosing their disability to other people impacts self-esteem and/or future decisions regarding outness. To do this, researchers might ask participants to describe their experiences with disclosing their disability, and then investigate how the positive or negative nature of these experiences may relate to outness and self-esteem. On issues of internal identity, future research should focus on whether or not the stigmas

associated with learning disabilities and mental health problems play an influential role in the relationship between dis-identification with disabilities and increased self-esteem and self-determination.

The findings of the present study suggest that significant relationships may exist between how people integrate an invisible disability into their internal and external identity, and certain aspects of well-being. Specifically, our findings suggest that a higher degree of dis-identification with disability is positively correlated with self-esteem and self-determination, and that a higher level of outness is positively correlated with self-determination. This study also highlights the need for more research into the issue of identity management in individuals with invisible disabilities. Understanding what having an invisible disability means to the person receiving such a label is vital to improving services and counseling for these individuals for two specific reasons highlighted in the present study. Firstly, it is important to know that the ways in which individuals with invisible disabilities identify to their service providers may not reflect how they feel internally. Also, service providers may better help their clients by helping them to dis-identify not with disability itself, but with the stigmas associated with their invisible disabilities. However, while we think research on invisible disabilities as a whole is important, this study also emphasized the sheer diversity of invisible disabilities, each of which carries its own challenges, stigmas, and opportunities. Clearly, this issue is extremely complex and warrants the attention of psychological research.

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Table 1

Participant Demographic Information

School Type	<i>n</i>	Mean Age	Gender		Disability Type	
			Male	Female	LD	MHP
Liberal arts college	33	20	9	24	19	14
Religious university	7	21	3	4	7	0
State university	71	27	28	43	39	32
Total	111	24.8	40	71	65	46

Table 2

Descriptive Statistics for All Variables (N = 111)

Variable	<i>M</i>	<i>SD</i>
ATDT	-5.6	9.26
Isolation	25.5	5.28
Containment	31.7	5.09
Spread	19.8	5.16
Outness	41.4	10.99
Self-Esteem	30.3	5.90
Self-Determination	9.1	3.40

Table 3

Correlation Matrix for All Variables

	1	A	B	C	2	3	4
1. ATDT total							
A. ATDT isolation							
B. ATDT containment							
C. ATDT spread							
2. Outness	-.05	.03	-.19*	-.06			
3. Self-esteem	-.65**	.52**	.24*	-.63**	.12		
4. Self-determination	-.37**	.26*	.14	-.39*	.19*	.45**	

* $p < .05$. ** $p < .01$.

Appendix A

Demographic Questions

1. What is the name of the college or university you currently attend?
2. What is your age? _____
3. What is your gender? M F
- 4a**. Do you have a documented learning disability? Yes No
 4b. If so, what is your diagnosis and/or what do you identify as?
- 5a**. Have you ever been prescribed medication for a mental health problem?
 Yes No
 5b. If so, what is/was your diagnosis and/or what do you identify as?
6. If you answered “yes” to both questions 4a and 5a, which of these issues do you see as more pertinent to your identity? Please choose only one.
 Learning disability
 Mental health problem
7. Regarding the learning difference or mental health problem you referred to above, how many years has it been since you were diagnosed/started receiving treatment?

**To qualify for our study, participants had to answer “yes” to either question 4a or 5a.

Appendix B

Attitudes Toward Disability Test—Learning Disability Version

Below are a number of statements which are lumped together in groups of three. In each group rank the statements by checking 1 next to the statement that is most true of you or that you most agree with, checking 2 next to the statement that you moderately agree with or is somewhat true of you, and checking a 3 next to the statement that is least true of you or that you disagree with most.

1-most agree with

2-moderately agree with

3-disagree with

(Each statement is labeled according to the subscore to which it contributes: Is = isolation, C = containment, Sp = spread)

Group 1

- I am an academic wreck. (Sp)
- I am as academically able as anyone. (Is)
- I am as academically able as could be expected with my learning difference. (C)

Group 2

- The learning difference has changed very few of my plans. I'm going to do them as soon as I can. (Is)
- This learning difference of mine has forced me to give up my most important plans and hopes for the future. (Sp)
- Although my learning difference has forced me to give up or change some of my plans and hopes for the future, I still feel that I have many things to look forward to. (C)

Group 3

- I really regret my learning difference. It has been one of the most terrible things that could have happened to me. (Sp)
- Frankly, my learning difference hasn't seemed to make much difference. (Is)
- Of course I wish I didn't have a learning difference, but I know I can adjust to it. (C)

Group 4

- Because of the challenges of my learning difference I feel that I will not be able to complete school. (Sp)
- I feel sure I can complete school in spite of the challenges of my learning difference. (Is)
- Although my learning difference might make it hard for me to complete school, I think there is a good chance that I will be able to, and I am going to try my best. (C)

Group 5

- I have had to give up very few satisfactions in life because of my learning difference. (Is)
- Some things are not possible for me, considering my learning difference, but I find that there are also many enjoyable things for me in life. (C)
- My learning difference has changed my whole life for the worse and prevents me from having the most important things in life. (Sp)

Group 6

- My learning difference occupies my mind a lot and I am almost never able to forget about having a learning difference. (Sp)
- I sometimes think about my learning difference but often I am able to forget it completely when I am doing something I like. (C)
- I seldom think about having a learning difference. (Is)

Group 7

- My learning difference interferes with some of the things I do, but that's to be expected. I find I can still do most of the important things in life. (C)
- My learning difference doesn't seem to interfere much at all when I am trying to do things. (Is)
- My learning difference seems to interfere with everything I try to do. Sometimes it doesn't seem worth the effort to try to do things that are hard for me because of my learning difference. (Sp)

Group 8

- Although I have a learning difference that makes me sometimes need the help of others, I can still do important and valuable things. (C)
- Despite my learning difference, I can take care of myself just as well as any other person can take care of his or herself. (Is)
- Having a learning difference, I am a burden to others. (Sp)

Group 9

- I hate the term "learning disability" and feel it should be dropped from the English language. It's no one's business that I have a learning difference. (Is)
- Although I have had (or have) a learning difference, the most important thing about me is what I can still do and the kind of person I am. (C)
- A very important fact about is that I have a learning difference. A person would need to know that to understand me. (Sp)

Group 10

- A learning difference changes a person's life some, but he or she is still the same inside. (C)
- A person with a learning difference should always think to him or herself, "this doesn't change me a bit."(Is)
- I think having a learning difference changes a person a great deal. (Sp)

Group 11

- I have suffered (or suffer) greatly from my learning difference. (Sp)
- Sometimes my learning difference has given (or gives) me trouble, but not always. (C)
- My learning difference never bothers me. (Is)

Group 12

- People with learning differences are just the same as anybody else. Having a learning difference doesn't make any difference. (Is)
- I feel that people with learning differences aren't worth much to themselves or to anybody. (Sp)
- All people are valuable, even though people with learning differences may have trouble doing certain things or may take longer to do things than a person without a learning difference. (C)

Group 13

- Completely forgetting about the learning difference is not the best attitude. You have to keep it in mind to figure out to your limitations and to think up new ways of approaching things. (C)
- The best attitude to have is to forget about the learning difference and try to keep on doing all the things you've always intended to do. (Is)
- I think the best attitude is to forget about the learning difference, but I can't forget because it interferes so much with everything I try to do. (Sp)

Appendix C

Attitudes Toward Disability Test—Mental Health Problem Version

Below are a number of statements which are lumped together in groups of three. In each group rank the statements by checking 1 next to the statement that is most true of you or that you most agree with, checking 2 next to the statement that you moderately agree with or is somewhat true of you, and checking 3 next to the statement that is least true of you or that you disagree with most.

1-most agree with

2-moderately agree with

3-disagree with

(Each statement is labeled according to the subscore to which it contributes: Is = isolation, C = containment, Sp = spread)

Group 1

- I am a mental wreck. (Sp)
- I am as mentally fit as anyone. (Is)
- I am as mentally fit as could be expected with my mental health problem. (C)

Group 2

- The mental health problem has changed very few of my plans. I'm going to do them as soon as I can. (Is)
- This mental health problem of mine has forced me to give up my most important plans and hopes for the future. (Sp)
- Although my mental health problem has forced me to give up or change some of my plans and hopes for the future, I still feel that I have many things to look forward to. (C)

Group 3

- I really regret my mental health problem. It has been one of the most terrible things that could have happened to me. (Sp)
- Frankly, my mental health problem hasn't seemed to make much difference. (Is)
- Of course I wish I didn't have a mental health problem, but I know I can adjust to it. (C)

Group 4

- Because of the challenges of my mental health problem I feel that I will not be able to complete school. (Sp)
- I feel sure I can complete school in spite of the challenges of my mental health problem. (Is)
- Although my mental health problem might make it hard for me to complete school, I think there is a good chance that I will be able to, and I am going to try my best. (C)

Group 5

- I have had to give up very few satisfactions in life because of my mental health problem. (Is)
- Some things are not possible for me, considering my mental health problem, but I find that there are also many enjoyable things for me in life. (C)
- My mental health problem has changed my whole life for the worse and prevents me from having the most important things in life. (Sp)

Group 6

- My mental health problem occupies my mind a lot and I am almost never able to forget about having a mental health problem. (Sp)
- I sometimes think about my mental health problem but often I am able to forget it completely when I am doing something I like. (C)
- I seldom think about having a mental health problem. (Is)

Group 7

- My mental health problem interferes with some of the things I do, but that's to be expected. I find I can still do most of the important things in life. (C)
- My mental health problem doesn't seem to interfere much at all when I am trying to do things. (Is)
- My mental health problem seems to interfere with everything I try to do. Sometimes it doesn't seem worth the effort to try to do things that are hard for me because of my mental health problem. (Sp)

Group 8

- Although I have a mental health problem that makes me sometimes need the help of others, I can still do important and valuable things. (C)
- Despite my mental health condition, I can take care of myself just as well as any other person can take care of his or herself. (Is)
- Having a mental health problem, I am a burden to others. (Sp)

Group 9

- I hate the term "psychiatric disorder" and feel it should be dropped from the English language. It's no one's business that I have a mental health problem. (Is)
- Although I have had (or have) a mental health problem, the most important thing about me is what I can still do and the kind of person I am. (C)
- A very important fact about is that I have a mental health problem. A person would need to know that to understand me. (Sp)

Group 10

- When a person develops a mental health problem, his or her life changes some, but he or she is still the same inside. (C)

- A person with a mental health problem should always think to him or herself, “this doesn’t change me a bit.” (Is)
- I think developing a mental health problem changes a person a great deal. (Sp)

Group 11

- I have suffered (or suffer) greatly from my mental health problem. (Sp)
- Sometimes my mental health problem has given (or gives) me trouble, but not always. (C)
- My mental health problem never bothers me. (Is)

Group 12

- People with mental health problems are just the same as anybody else. Having a mental health problem doesn’t make any difference. (Is)
- I feel that people with mental health problems aren’t worth much to themselves or to anybody. (Sp)
- All people are valuable, even though people with mental health problems may have trouble doing or enjoying certain things. (C)

Group 13

- Completely forgetting about the mental health problem is not the best attitude. You have to keep it in mind to figure out to your limitations and to think up new ways of approaching things. (C)
- The best attitude to have is to forget about the mental health problem and try to keep on doing all the things you did before. (Is)
- I think the best attitude is to forget about the mental health problem, but I can’t forget because it interferes so much with everything I try to do. (Sp)

Appendix D

Adapted Outness Inventory—Learning Disability Version

Please choose a number 1-7 to indicate the degree to which your learning difference is known by or openly talked about with the following people in your life.

Extended family and relatives

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Old friends

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

New friends

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Strangers

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.

6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Work peers

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Work supervisors

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Classmates

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Professors

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Appendix E

Adapted Outness Inventory—Mental Health Problem Version

Please choose a number 1-7 to indicate the degree to which your mental health problem is known by or openly talked about with the following people in your life.

Extended family and relatives

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Old friends

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

New friends

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Strangers

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.

6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Work peers

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Work supervisors

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Classmates

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Professors

1. Person *definitely* does *not* know about your mental health problem.
2. Person *might* know about your mental health problem, but it is *never* talked about.
3. Person *probably* knows about your mental health problem, but it is *never* talked about.
4. Person *probably* knows about your mental health problem, but it is *rarely* talked about.
5. Person *definitely* knows about your mental health problem, but it is *rarely* talked about.
6. Person *definitely* knows about your mental health problem, and it is *sometimes* talked about.
7. Person *definitely* knows about your mental health problem and it is *openly* talked about.

Appendix F

Rosenberg Self-Esteem Scale

Please indicate your agreement with the following statements.

1. On the whole, I am satisfied with myself.

Strongly Agree Agree Disagree Strongly Disagree

2. At times I think I am no good at all.

Strongly Agree Agree Disagree Strongly Disagree

3. I feel that I have a number of good qualities.

Strongly Agree Agree Disagree Strongly Disagree

4. I am able to do things as well as most people.

Strongly Agree Agree Disagree Strongly Disagree

5. I feel I do not have much to be proud of.

Strongly Agree Agree Disagree Strongly Disagree

6. I certainly feel useless at times.

Strongly Agree Agree Disagree Strongly Disagree

7. I feel that I'm a person of worth, at least on an equal plane with others.

Strongly Agree Agree Disagree Strongly Disagree

8. I wish I could have more respect for myself.

Strongly Agree Agree Disagree Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.

Strongly Agree Agree Disagree Strongly Disagree

10. I take a positive attitude toward myself.

Strongly Agree Agree Disagree Strongly Disagree

Appendix G

Self-Determination Subscale of the Personal Opinions Questionnaire

This is an inventory of your opinions about a variety of personal and social concerns. To complete the inventory, please report to each item by circling True(T) or False(F) for each statement.

- | | | |
|---|---|---|
| 1. I am comfortable speaking to strangers. (SD+) | T | F |
| 2. I feel uncomfortable making major decisions. (SD-) | T | F |
| 3. I have difficulty expressing my feelings in a group. (SD-) | T | F |
| 4. People often ask me for clever solutions. (SD+) | T | F |
| 5. I'm not afraid to stand up for my rights. (SD+) | T | F |
| 6. I don't trust my hunches or flashes of insight. (SD-) | T | F |
| 7. I'll do anything to avoid getting into an argument. (SD-) | T | F |
| 8. I don't let people push me around. (SD+) | T | F |
| 9. I don't like to talk about my opinions with others. (SD-) | T | F |
| 10. I will not stop people just to ask directions. (SD-) | T | F |
| 11. I often agree with people so I can get along with them. (SD-) | T | F |
| 12. I express my views on controversial topics. (SD+) | T | F |
| 13. People often take advantage of me. (SD-) | T | F |
| 14. When asked to do something new, I like to be told exactly how to do it. (SD-) | T | F |