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## The disclosure process of an invisible stigmatized identity

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THE DISCLOSURE PROCESS OF AN INVISIBLE STIGMATIZED IDENTITY

A Dissertation

Presented in Partial Fulfillment of the Degree of  
Doctorate of Philosophy in Clinical Psychology

August, 2011

BY

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## VITA

The author was born in Providence, Rhode Island, January 26, 1981. She graduated from Cranston West High School and received her Bachelor of Arts degree from Boston College in 2003. She received her Masters of Arts degree from DePaul University in 2008.

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## CHAPTER I

### INTRODUCTION

A stigmatized identity refers to a persistent quality of an individual that evokes negative or punitive responses from others (Crocker, Major, & Steele, 1998). Stigmas can be visible, such as race/ethnicity or physical deformities, or invisible, such as mental illness or sexual orientation. Individuals with concealable stigmas face unique stressors than those with visible stigmas. These stressors include having to make decisions to disclose one's hidden status, anxiously anticipating the possibility of being found out, being isolated from similarly stigmatized others, and being detached from one's true self (Pachankis, 2007). Research on the disclosure of concealable stigmas indicates that there may be both positive and negative consequences of disclosing one's stigma. Potential positive consequences include decreased stress and increased support from family and friends (Rosario, et al., 2001; Beals & Peplau, 2001; Kadushin, 2000), whereas, potential negative consequences include increased risk of discrimination, harassment, and social isolation (Quinn, Kahng, & Crocker, 2004; Santuzzi & Ruscher, 2002).

In order to better understand the factors that contribute to the disclosure process of a concealable stigma, Ragins (2008) proposed a model of this process. Ragins suggests that stigma characteristics, individual factors, environmental factors, and anticipated consequences of disclosure all influence the decision to disclose. This study aims to test Ragins' disclosure model with college student participants who have at least one of the following concealable stigmas: mental health problems, learning disabilities, low socioeconomic status (SES), and LGB (lesbian, gay, bisexual). This study also seeks to determine if disclosure of an invisible stigmatized identity impacts psychological

symptoms. The results of this study could help to better understand college students with invisible stigmatized identities and promote the well-being of this population.

### Definition of Stigma

Stigma refers to a mark of disgrace associated with a particular quality of a person (Crocker et al., 1998). Stigmas often shape the identities of the stigmatized individual and may influence their cognition, affect, and behaviors (Miller & Major, 2000). Stigmatization often involves prejudice and discrimination against the stigmatized group. The degree of stigmatization depends on the perceived responsibility of the individual for the attribute, the perceived consequences of the attribute for others, the outward manifestations of the attribute, and the perceived impact of the attribute on an individual's level of social valued competence (Corrigan, 2005).

Being a victim of stigma has many negative consequences, such as poor mental health, physical illness, academic underachievement, infant mortality, low social status, poverty, and reduced access to housing, education, and jobs (Allison, 1998; Braddock & McPartland, 1987; Clark, Anderson, Clark, & Williams, 1999; Yinger, 1994). Additionally, once an individual is labeled as possessing a stigma they are viewed as deviant from others. Being labeled as deviant may lead to rejection from the "normal" population, isolation, restriction of social opportunities, and reduced self-esteem (Goffman, 1961).

### Social Stigmas

Stigmas are individual attributes that are viewed as a personal flaw within a social context (Goffman, 1963). Because stigmas are socially constructed they may be perceived differently across settings (Crocker, Major, & Steele, 1998). Social stigmas

vary widely in their specific features and their implications for the experiences of the stigmatized individual. Crocker et al. (1998) propose that a single defining feature of social stigma is that stigmatized individuals possess an attribute that conveys a social identity that is devalued in a particular social context. Rosenberg (1979) defines social identity as the groups or statuses to which an individual is socially recognized as belonging. Just as individuals are motivated to maintain high levels of self-esteem, they are motivated to maintain a positive sense of social identity (Tajfel, 1981). This motive influences the way in which individuals evaluate and perceive both in-group and out-group members. It fosters a tendency for individuals to harbor less favorable attitudes toward out-group members than in-group members (Corrigan, 2005). Two key stigma features that contribute to this process are the perceived controllability of the stigma and degree of concealability of the stigma.

### Controllability

The degree of perceived controllability for the stigma is important because individuals with stigmas that are believed to be controllable are more disliked, rejected, and harshly treated than people whose stigmas are perceived as uncontrollable (Crocker et al., 1998). The degree of this negative treatment and the associated behaviors directed toward stigmatized persons can be altered by communicating specific causal information (Weiner, 1993). For example, a disorder that has a biological basis will be perceived as being less controllable by the individual and thus less stigmatized than a condition that does not have a biological basis.

## Concealability

Some researchers have assumed that those with a concealable stigma escape much of the prejudice and discrimination faced by visibly stigmatized individuals because their stigmatized identity is not readily known by others (Goffman, 1963; Jones et al., 1984). However, those with a concealable stigma actually face considerable stressors. These stressors include having to make decisions to disclose one's hidden status, anxiously anticipating the possibility of being found out, being isolated from similarly stigmatized others, and being detached from one's true self (Pachankis, 2007). Additional stressors related to disclosure for those with invisible stigmas are being perceived as not having a stigma (Goffman, 1963), lack of control over the disclosure process, such as if others 'out' an individual (Ragins, 2004), and the impact of disclosure on various relationships (Ragins, 2008).

## Types of Invisible Stigmas

Given that stigmas may change over time and between settings, there are many types of invisible stigmas. This study will focus on four invisible stigmas: a) having mental health problems; b) being from a low social class; c) having a learning disability; and d) being lesbian, gay, or bisexual. These identity types were chosen because individuals with these identity types are prevalent on a college campus and research has shown each of these identity types face discrimination and unique challenges.

## Mental Health Problems

Stereotypically held beliefs about the mentally ill, such as being incompetent or dangerous, lead to prejudice and discrimination against persons with mental illness (Link, 1982). Discrimination impacts those with mental health problems by robbing them of

rightful life opportunities, mainly related to employment and housing; criminalizing mental illness; and having decreased benefits from the general health care system (Corrigan, 2005). Self-stigma arises when an individual with mental illness accepts the stigmatizing notions of the larger culture. This can result in diminished self-esteem, self-efficacy, and confidence in one's future (Corrigan, 1998; Holmes & River, 1998). A lack of knowledge of causes, symptoms and treatment options of mental disorders in the public and a lack of personal contact with affected individuals can result in prejudices and negative attitudes towards them--and subsequently in stigmatization and discrimination (Baumann, 2007). The stigmatization of mental illness is one of the major reasons why persons who need treatment do not readily seek assistance or support (Gary, 2005).

Individuals with mental health problems are often aware that knowledge of their disability alters the behavior of others to them (Olney & Brockelman, 2003). Often those with mental health problems are reticent to disclose their status for fear of being stigmatized. In a study that examined whether individuals with mental health problems disclose to their general practitioner, it was found that 37% of patients did not disclose (Bushnell et al., 2005). Those who did not disclose were younger and had a greater psychiatric disability than those who did disclose. The most common reasons given for non-disclosure were that the general practitioner is not the 'right' person to talk to or that mental health problems should not be discussed at all.

Other studies have examined the disclosure decisions of those with mental health problems in the workplace. Acquiring and maintaining employment is often challenging for individuals with psychiatric disabilities and the decision to disclose can have both

positive and negative repercussions. The disclosure decision may be a substantial risk to the careers of people with hidden disabilities (Harlan & Robert, 1998). In a study of the disclosure process of employees with mental illness in the vocational rehabilitation system, disclosure provided the opportunity to seek Americans with Disabilities Act (ADA) accommodations and invoke other legal rights, but some people who disclosed indicated that disclosure had adverse consequences for them (Goldberg, Killeen, & O'Day, 2005). Some participants reported experiencing harsher treatment by supervisors, feeling stigmatized by coworkers or supervisors, or receiving uncomfortable attention from others. Nondisclosure posed its own challenges, such as the difficulties in explaining an uneven employment history and obtaining work accommodations (Goldberg et al., 2005).

A national study examined disclosure among professionals and managers with serious psychiatric conditions (Ellison, Russinova, MacDonald-Wilson, & Lyass, 2003). It was found that a large proportion (87%) of study participants reported having disclosed their mental illness to their employers. About half of the disclosers reported unfavorable circumstances leading to disclosure while one third disclosed when they felt comfortable. The most common unfavorable circumstances reported included experiencing symptoms and needing to explain them and hospitalizations. Choosing to disclose was related to feeling confident in the security of the workplace (Ellison et al., 2003). Further, the greater the severity of the psychiatric condition the more likely the individual was to disclose earlier. About half of the respondents had no regrets about disclosing. It should be noted that the participants in this study worked as professionals and had higher educational status than the participants in the study conducted by Goldberg et al. (2005).

Research has shown that those with higher educational status are more likely to seek mental health services indicating they may view mental illness as less stigmatizing than those of lower educational status (Sheikh & Furnham, 2000).

The work environment can also impact disclosure decisions. A study examined how employment providers supported those with mental illness (Tschopp, Perkins, Hart-Katun, Born, & Holt, 2007). Successful providers reported that a sense of hope, a trusting relationship, and realistic and sincere expectations about work were key ingredients to disclosure. Barriers to success with this population included stigma and inadequate support (Tschopp et al., 2007). Vocational rehabilitation clients placed in supported environments tended to disclose more to employers and coworkers than those placed in more competitive environments (Rollins, Mueser, Bond, & Becker, 2002). However, those who disclosed in Rollins et al.'s (2002) study had higher stress levels postdisclosure than those who did not disclose. In the Goldberg et al. (2005) study, many of the participants feared that the public, including employers, had negative views toward people with psychiatric disabilities. Participants feared that their employers held stereotypes about those with mental illness, such as that they are violent, are irresponsible, have erratic attendance, behave strangely, and fight with coworkers.

### Low Social Class

Being from a lower social or economic class is a stigmatized identity that may not be visible to others. Although there is a distinction between the terms social class and income, the two are often correlated and will be discussed interchangeably in this study. In the case of classism, people occupying lower social class levels are treated in ways that exclude, devalue, discount, and separate them (Lott, 2002). Individuals from a lower



social class experience discrimination with the school system. Racial/ethnic and class-based segregation in schools is associated with the withdrawal of economic and political support for poor schools. While low social class is associated with poor quality education, level of education also dictates social class (Fine & Burns, 2003). In a qualitative study of low-income individuals, participants thought that other members of society viewed them as a burden to society, as lazy, disregarding of opportunities, irresponsible, and opting for an easy life (Reutter et al., 2009). This study was conducted in Canada and low-income was defined by income levels at which Canadians spend 20% or more of their income on basic needs than the average proportion spent by Canadians. These individuals responded to this stigma by confronting discrimination directly, disregarding responses from others, helping other low-income people, withdrawing and isolating themselves from others, engaging in processes of cognitive distancing, and concealing their financial situation.

Those from a lower social class may be stigmatized because of the belief that they are responsible for their economic position. While people of lower socioeconomic status (SES) favor structural attributions for wealth, those of higher SES may believe that poverty and wealth is determined by individualistic causes (Bullock & Limbert, 2003). According to the 'just world' hypothesis, people get what they deserve and the world is a fundamentally fair place (Lerner & Miller, 1978). If a seemingly good person suffers a negative outcome, this threatens our sense of justice, and we may be motivated to reinterpret the situation, potentially convincing ourselves that the person deserved what happened to him or her (Lerner & Miller, 1978). Thus, people of higher SES may stigmatize those of lower SES to justify their advantages (Jost & Banaji, 1994) and will

attribute the situations of those in a lower status to controllable factors (Crandall, 1994). The gap between lower and upper social class groups has widened over the past 25 years. An explanation for this fact states that the bias created by the belief in a 'just world' creates weakened support for collective efforts to improve the conditions of the lower class (George, 2006).

Stigma can influence how those from different classes interact with each other. Three studies conducted by Garcia, Hallahan, and Rosenthal (2007) found that people from lower social class backgrounds are less expressive toward people from upper social class backgrounds except in contexts where they share minority status on another dimension. Expressiveness was measured by external raters who viewed video recordings of the interactions between lower-class and upper-class participants. Upper-class participants acted the same with lower-class and upper-class individuals alike. The authors postulate that the lack of expressiveness by people from lower-class backgrounds when interacting with people from upper-class backgrounds was an attempt to conceal their class identity, and thus escape being stigmatized.

### Learning Disabilities

Unlike other categories in discrimination studies (e.g., women, Latinos), it is very difficult to ascertain the prevalence of learning disabilities (LD) among adults. Little (1990) reported that there are more than 5 million adults with LD in the United States, whereas Ross-Gordon (1989) estimated their number at more than 11 million.

Individuals with LDs are also a stigmatized group. In a qualitative study of individuals of color with LDs, it was found that people with learning disabilities are perceived as having an illegitimate impairment and being of lower intellectual ability and

unworthy (McDonald, Keys, & Balcazar, 2007). Individuals with LDs face discrimination in the workplace (Anderson, 1999). Employers are more likely to grant accommodations to employees with physical disabilities than to employees who have cognitive disabilities, which has been attributed to physical disabilities being viewed in a more positive light and to a lack of knowledge about LDs (Minskoff, 1987).

Having an LD is a concealable stigmatized identity with large potential implications when disclosed in an employment or educational setting. A potential reason that an individual with an LD may not disclose could be that they do not even view themselves as having an LD. A study of 25 adults found that over half did not acknowledge they had learning disabilities, despite having a documented diagnosis (Price, Gerber, & Mulligan, 2003). Todd (1997) examined how parents with LDs provided information to their adult offspring with LDs. It was found that parents had taken steps to prevent their adult offspring from having to deal with the difficulty of having a stigmatized identity, such as by avoiding social situations where they might face greater stigmatization or disclosing their child's LD to others. The author argues that an LD is rendered invisible through the strategic control of information. Findings from this study suggest that LDs are not socially invisible but that individuals with LDs are invisible to themselves by denying their condition.

Individuals with LDs in an educational environment may face stigmatization and decreased self-esteem. In a study of students, ages 15 to 17, with intellectual disabilities, the majority of the participants reported experiencing stigmatized treatment from their non-disabled peers (Cooney, Jahoda, Gumley, & Knott, 2006). Specifically, the students reported experiencing ridicule and exclusion. Another study showed that high school

students with LDs who perceived the most stigma had lower self-esteem, lower ideals, and felt less likely to fulfill their aspirations on self-report measures (Szivos-Bach, 1993). Students with the lowest self-esteem also viewed other students in a more negative light and had poor interpersonal relationships (Szivos-Bach, 1993).

Much of the research on disclosure of LDs has focused on disclosure in the work environment. Individuals with disabilities are unsure about if, when, and how to disclose their disabilities to employers (Murphy, 1992; Thompson & Dooley-Dickey, 1994). Greenbaum, Graham, and Scales (1996) reported that fear of discrimination causes many people with LD to conceal their disabilities at the workplace. In the same study, 40% of participants feared that they would not have been hired if they had disclosed their learning disability prior to being hired. Studies have found that the majority of individuals with LDs do not disclose to their employers (Madaus, Foley, McGuire, & Ruban, 2002; Price, Gerber, & Mulligan, 2003). Reasons for not disclosing included being viewed as incompetent by their employers; seeing their disability as their problem only; having a negative impact on their relationships with supervisors or co-workers; threatening their job security; or simply not being relevant enough to the job to disclose (Kakela & Witte, 2000; Madaus et al., 2002; Price et al., 2003).

### Lesbian, Gay, Bisexual (LGB)

Stigma is a universal feature of the lives of LGB individuals. The percentage of adults in the U.S. who disapprove of homosexual relations now stands at approximately 57% (National Opinion Research Center, 2003). A recent Gallup poll found 57% of adults in the U.S. opposed gay marriage (Jones, 2009). Additionally, gays and lesbians are the most frequent victims of hate crimes and are seven times more likely to be crime

victims than heterosexuals (SIECUS Report, 1993). In 2007, the Federal Bureau of Investigation reported that there were 1,512 reported hate crimes based on sexual orientation (U.S. Department of Justice, 2007). However, at least 75% of crimes against gays and lesbians are not reported (National Gay and Lesbian Task Force, 1991). A recent national survey of 662 LGB adults found that approximately 20% of respondents reported having experienced a person or property crime based on their sexual orientation; about half had experienced verbal harassment, and more than 1 in 10 reported having experienced employment or housing discrimination (Herek, 2009).

Some studies have examined the stigmatizing attitudes towards LGB individuals among college students, who are generally more tolerant of homosexuality than adults in general (Sax et al., 2004). Sax et al., (2004) found that 33% of college students supported laws prohibiting homosexual relations. Another study of undergraduates revealed that participants who examined resumes rated lesbian and gay male applicants less positively than heterosexual male applicants. Religiosity, beliefs in traditional gender roles, beliefs in the controllability of homosexuality, and previous contact with lesbians and gay men were related to attitudes toward lesbians and gay men, which was in turn related to beliefs about employing them (Horvath, 2003).

Other studies have examined the discrimination toward LGB individuals in the workplace. Studies using small regional samples have revealed that between 25% and 66% of gay employees report workplace discrimination (Croteau, 1996), but because most gay and lesbian employees do not fully disclose their sexual orientation at work (Badgett, 1996; Driscoll, Kelley, & Fassinger, 1996; Schneider, 1987), the potential for discrimination may actually be quite higher.

LGB individuals face discrimination in other arenas of life as well. Jones (1996) found that same-sex couples were discriminated against when making hotel reservations, and Walters and Curran (1996) found that homosexuals received less assistance in retail stores compared to heterosexuals.

Due to discrimination and marginalization, LGB people are faced with the challenge of finding ways to adapt to their stigmatized status (Harper & Schneider, 2003). Sexual minority individuals often have the option of concealing their stigmatized status. The extent to which sexual orientation is disclosed to others is often referred to as *outness level*. It is generally recognized that outness levels may differ according to relational and social context, such as family, public, work, and religious contexts (Mohr & Fassinger, 2000). Although some models of identity formation have included outness as a sign of positive identity, McCarn and Fassinger (1996) noted that degree of sexual orientation disclosure may be more a reflection of the degree to which the social context is LGB-affirming.

Researchers have investigated factors that relate to the coming-out process for LGB individuals. Motivating factors include a desire to be closer to others, to validate one's own self-worth, and to stop having to hide (Moses & Hawkins, 1986). Individuals may hesitate about disclosing if they believe that their actions are wrong or they fear reprisals (Cohen & Savin-Williams, 1996). Those who are politically active or involved in LGB communities and have support and acceptance from others are more likely to disclose (Savin-Williams, 1990). The negative psychological outcomes of not disclosing may include isolation and loneliness (Cohen & Savin-Williams, 1996) and thoughts of self-doubt and suicide (Rhoads, 1994). Other negative outcomes are being harassed and

feeling a sense of obligation to educate others (Rhoads, 1994). The positive effects of disclosure include higher self-esteem (Cohen & Savin-Williams, 1996) and an improved sense of self (Rhoads, 1994).

### Psychological Impact and Prevalence of Invisible Stigmas in College Students

College students are an important population in which to study invisible stigmatized identities because most college-aged individuals are still in the process of identity formation. College-aged individuals are in a developmental phase between adolescence and adulthood which results in a more integrated identity (Berk, 2000). Adolescence is viewed by Erikson as the time when a coherent sense of identity is developed, which can be a lengthy process (Erikson, 1968). Identity development research indicates that the late teens and early 20s appear to be the critical times for the crystallization of a sense of identity (Nurmi, 2004; Schwartz, Cote, & Arnett, 2005). Individuals aged, 18-25, are in a distinct developmental stage, called emerging adulthood. This period is characterized as a time when little about the future has been decided for certain and the exploration of life's possibilities is at its greatest (Arnett, 2000). One of the top criteria for the transition to adulthood is making independent decisions (Arnett, 1998). Thus, for college students the decision to disclose an invisible stigmatized identity may be a step towards their transition to adulthood.

Additionally, college may be the first time in an individual's life when they encounter other individuals from backgrounds different from their own (Nagda, Gurin, & Johnson, 2005). Diversity experiences in college have been found to have a positive effect on the critical thinking skills of college students (Pascarella et al., 2001). Attitudinal changes may also occur during the college experience. Results from a study

of predominantly White college students indicated that students as seniors scored higher on measures of liberalism, social conscience, homosexuality tolerance and feminist attitudes and lower on male-dominant attitudes than they did as first-year students (Lottes & Kuriloff, 2005).

College might be the first time that students are living away from home and have to make decisions on their own. A study found that adolescents who had left their families to attend college experienced decreased perceptions of social support and increased feelings of loneliness and social anxiety (Larose & Boivin, 1998). This change in environment can be particularly stressful for individuals with invisible stigmatized identities who may be grappling with disclosure decisions. Lastly, as college students are a diverse group, each of the invisible stigmas examined in this study are prevalent amongst the student body.

### Mental Health Problems

Mental disorders are common in the United States (U.S.) and internationally. An estimated 26.2 % of U.S. adults ages 18 and older — about one in four adults — suffer from a diagnosable mental disorder in a given year (Kessler, Chiu, Demler, & Walters, 2005). Among college students, a study estimated the prevalence of depressive and anxiety disorders to be 15.6% for undergraduates and suicidal ideation in the past four weeks was reported by 2% of the students (Eisenberg, Gollust, Golberstein, & Hefner, 2007). Students with mental health disabilities constitute about 8-9% of those served in disability services offices (Mowbray et al., 2006). Counseling center directors and chief student affairs officers have documented that the level of serious mental health problems among college students has increased dramatically over the past decade (Cook, 2007).



College students with mental health problems face academic difficulties, such as test anxiety, screening out distractions, meeting deadlines, maintaining good attendance, and motivating oneself (Megivern, Pellerito, & Mowbray, 2003). They may also face social difficulties as a result of stigma, low self-esteem, and not being able to act appropriately with classmates or faculty (Mowbray & Megivern, 1999). The numerous stressors of college life, including academic stressors, meeting new people, living away from home, experiencing life as an adult could all trigger psychiatric symptoms in a vulnerable individual (Mowbray et al., 2006). Some college students are unwilling to seek mental health treatment because of perceived stigma (Blacklock, Benson, Johnson, & Bloomberg, 2003). The stigma of mental illness can produce fear, shame, and guilt, which can result in decreased likelihood of seeking advocacy (Blacklock et al., 2003). Left unrecognized and untreated, mental health problems may lead to students dropping out or failing out of college, attempting or committing suicide, or engaging in other risky, dangerous behaviors that may result in serious injury, disability, or death (Cook, 2007).

College students with mental health problems face additional barriers. Some students report mental health services are simply unavailable (Mowbray et al., 2006). Additionally, college students with mental health problems may face a lack of awareness and understanding of psychological disorders by faculty, peers, and support staff (Loewen, 1993). Colleges and universities often act as if students with psychiatric disabilities cannot function in higher education (Malakpa, 1993). Faculty, staff, and even disability offices and campus counseling still hold beliefs that mental illness necessarily produce cognitive deficits and disruptive behaviors (Brown, 1999). The stigma associated with mental illness and the little attention it is paid on college campuses will

impact the degree to which students with mental health problems will be able to get help and feel supported.

### Low Social Class

Forty-percent of all undergraduates are from low-income families (U.S. Department of Education, 2004). Low-income students were defined as those whose family income was in the bottom 20 percent of all family incomes. Thirty-seven percent of low-income students attend public or private not-for-profit four-year colleges and universities (U.S. Department of Education, 2004). Many working-class and working poor students feel ill-prepared for the academic intensity of college (Walpole, 2003). Additionally, these students often feel isolated, marginalized, psychologically distressed, and do not feel supported (Karp, 1986; Wentworth & Peterson, 2001). Students from lower SES backgrounds were found to work more, study less, be less involved in extracurricular activities, and had lower grades than their higher SES peers (Walpole, 2003). Another study of low SES students found that they felt like they were on the margins of the college, their experiences were undervalued and unimportant, and the school intentionally and unintentionally privileged wealthy students (Kuriloff & Reichert, 2003). The college experience may reinforce class stereotypes as those from lower social classes are believed to be transcending their background and changing their class status by being in college (Langhout, Rosselli, & Feinstein, 2007).

College students from low social class backgrounds are likely to experience discrimination or classism. A study of 950 college students at a liberal arts college aimed to identify the extent to which students experienced both institutional and interpersonal classism (Langhout et al., 2007). Fifty-eight percent of participants, from various class

backgrounds, reported experiencing classism through offensive, stereotypic, and demeaning narratives of the working-class or working poor. Forty-three percent of students reported institutional classism, which was how the university shaped student life by living situation, curricular, and extra curricular activities. Examples of institutional classism include the university charging fees for participation in various activities. Lastly, 80% of students reported experiencing an incident of interpersonal classism. Interpersonal classism was described as others being dismissive of your financial situation or encouraging you to buy things you could not afford. If students experience classism in college, their psychosocial and academic outcomes may be compromised (Langhout et al., 2007).

### Learning Disabilities

Learning disabilities are common in the college population. Two in five college freshmen with disabilities (40%) reported having an LD, and LDs account for 51% of special education classifications (Mason & Mason, 2005). Due to the nature of their disability, a student's LD may be particularly salient in the college setting. The transition to college could be particularly difficult for LD students as there are some differences between the high school and college environments that impact their level of preparedness for college (Brinckerhoff, Shaw, & McGuire, 1992). First, services in high school might have been provided automatically or a student's parent advocated for them; however, the student must employ self-advocacy in the college environment to receive any accommodations. Some of the greatest difficulties experienced by college students with LDs include being unprepared for responsibility, being overwhelmed by workload,

making new friends, failing classes, and telling others of their disability (Eaton & Coull, 1997).

Unfortunately, college students with LDs may lack the skills and confidence to be self-advocates. In a study of college students with LDs, 22 out of 61 participants felt like they could "not do things as well as other people" and 25 out of 61 felt "useless at times" (Smith, English, & Vasek, 2002). Additionally, 38% of students' parents were still helping their children select courses and 39% were having input in selection of school activities (Smith et al., 2002). One difference between high school and college is that college has a greater emphasis on independent-reading and study time, as well as a greater focus on scholastic performance. The individual guidance LD students received in a structured, controlled, and supportive environment, such as high school, may hamper the transition to college (Dalke & Schmitt, 1987). It has also been found that college students with LDs lack effective study habits and exhibit deficits in basic skills (Mangrum & Strichart, 1988). These factors can make the transition to college particularly stressful for LD students.

College students with LDs may experience negative outcomes. In a comparison of college students with and without LDs, the LD students had lower grades, test scores, and perception of their scholastic and intellectual abilities (Cosden & McNamara, 1997). A study of nine LD college students found that the students reported experiencing labeling and stigmatization throughout their school years (Barga, 1996). Labeling was either a positive or negative experience for these students whereby they received the help they needed or they were separated from the regular education classrooms. Stigmatization included name calling and low academic expectations, for example,

faculty counseling the students to select a different major. The students revealed that positive coping strategies included relying on benefactors, implementing self-improvement techniques, and utilizing particular academic strategies and management skills, while the negative coping strategy of avoiding disability disclosure created tension.

A similar study of 11 college students with LDs found that the most common barriers to disclosure included being misunderstood by faculty, being reluctant to request accommodations for fear of stigma, and having to work considerably longer hours than nonlabeled peers (Denhart, 2008). Denhart suggests that these barriers could be overcome through raising faculty awareness about LD issues, employing the assistance of the college LD specialist, and participation in a LD empowerment community on campus. Greater support from campus organizations has also been found to be related to increased self-esteem for LD students (Cosden & McNamara, 1997).

### LGB

The exact percentage of LGB students on college campuses is not well known. However, in a quality of life survey at a large academic research institution, 10% of the respondents reported being sexually attracted to someone of the same sex (Eyermann & Sanlo, 2002).

LGB students face many hardships. LGB students are at increased risk for depression and anxiety (Dworkin, 2000); substance abuse and suicide (Evans & D'Augelli, 1996); and alienation and isolation (D'Augelli, 1998). LGB students also face harassment on college campuses. Specifically, one third of 1,000 sexual minority college students experienced some form of harassment on campus (Rankin, 2006). In a study of 121 lesbian and gay undergraduates, 77% had been verbally insulted, 27% had been

threatened with physical violence, 13% reported property damage, 22% reported being chased, 6 reported cases of physical assault. Other students were the most frequent victimizers (D'Augelli, 1992). Another study found that 33% of sexual minority college students dropped out altogether due to harassment (Sherrill & Hardesty, 1994). Data from the National Longitudinal Study of Adolescent Health found that youth who reported same-sex or both-sex romantic attraction were more likely to experience extreme forms of violence than youth who reported other-sex attraction (Russell, Franz, & Driscoll, 2001).

LGB students may have negative perceptions of the college environment. Results from a survey of 1,927 students measuring perceptions of Lesbian, Gay, and Bisexual Campus Climate found that LGB students were more likely to perceive the campus as inhospitable to LGB people compared to heterosexual students (Waldo, 1998).

Another study of 80 undergraduate students compared closeted LGB students to out LGB students (Gortmaker & Brown, 2006). Closeted students perceived greater unfair treatment, greater perceptions of an anti-LG campus, less knowledge of LG issues, and had less of a presence of a LG student network compared to “out” students.

Despite fears of harassment and discrimination, the numbers of LGB students who are coming out within the college environment is growing (Talbot, 1996). Belonging to a student organization for LGB students was found to be beneficial for LGB undergraduates and have a positive impact on their identity formation (Dietz & Dettlaff, 1997).

Little research has focused on the development of positive attitudes toward the LGB community amongst heterosexuals in the U.S. A convenience sample of 68

heterosexual Midwestern university students with positive attitudes toward LGB people participated in semi-structured interviews that addressed the formation of their attitudes (Stotzer, 2009). Results found three key features in attitude formation: early normalizing experiences in childhood, meeting LGB peers in high school or college as important to the development of their attitudes, and experiences of empathy based on an LGB peer's struggles and successes, or resistance to hatred expressed by those with negative attitudes.

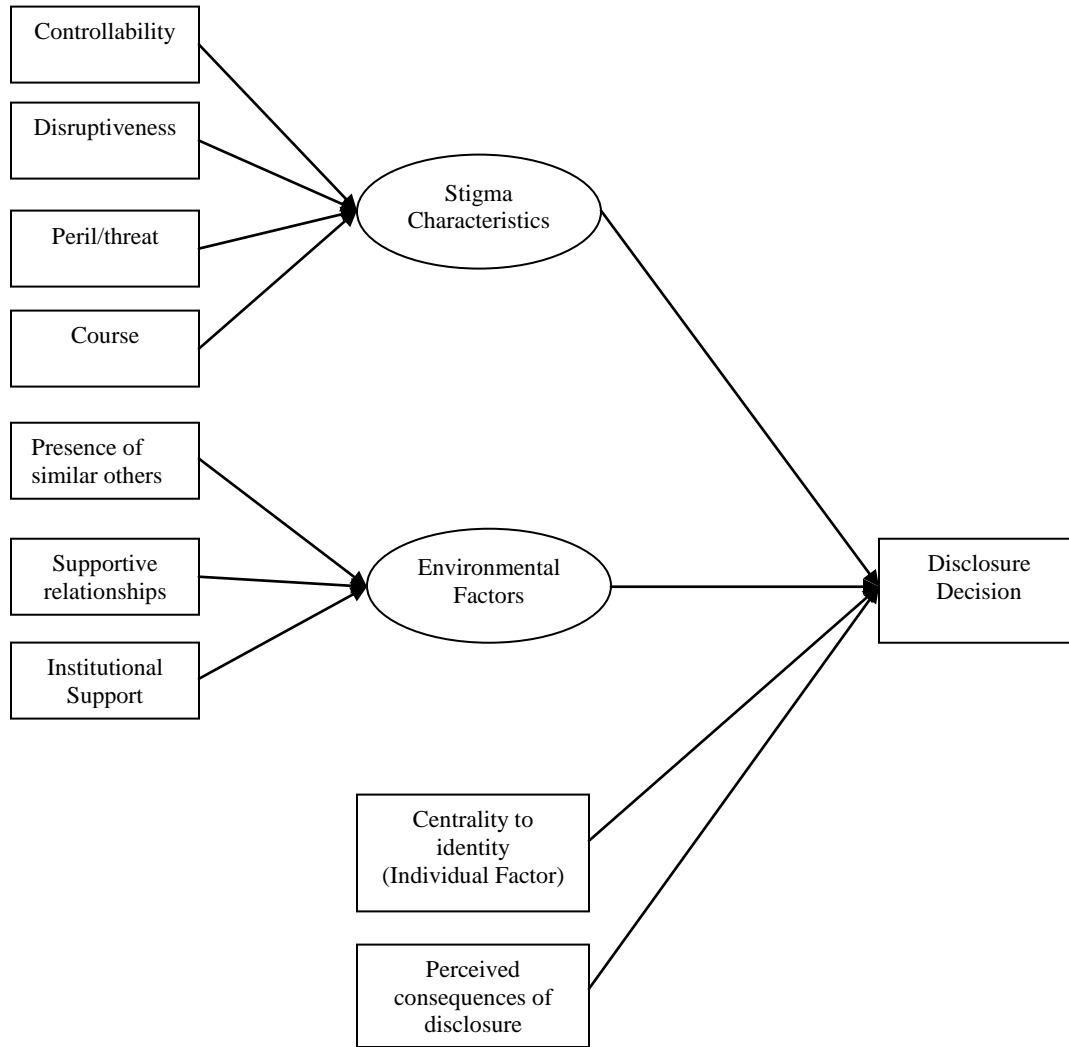
College students with invisible stigmatized identities face many challenges and stressors within the college environment. One of the biggest stressors they may encounter is how, when, and to whom they disclose their identity status.

#### Process of Disclosure

Overall the disclosure process is a complex fluid process and not a single event. The disclosure process is influenced by personal actions, interactions with others, and sociohistorical connections (D'Augelli, 1994). Ragins (2008) proposed a model (see Figure 1) of the disclosure decision process of an invisible stigmatized identity incorporating individual and environmental characteristics. Ragins's model (2008) is theoretical and based upon previous research in the area of invisible stigma disclosure. The model has not yet been tested. According to this model, stigma characteristics, individual factors, environmental factors, and the anticipated consequences of disclosure determine whether someone will disclose an invisible stigmatized identity. The components of the model will be discussed in more detail below.

Figure 1.

Antecedents to the Disclosure Process of an Invisible Stigmatized Identity





## Stigma Characteristics

There are four characteristics of a stigma that influence a disclosure decision: controllability, peril or threat, disruptiveness, and course. As mentioned earlier, a stigma is perceived to be controllable when the individual is viewed as being responsible for the stigmatized condition. Stigmatized individuals who are viewed as being responsible for their condition are more likely to be disliked and mistreated (Crocker et al., 1998), and thus less likely to disclose. The peril or threat of a stigma refers to the perceived danger of the stigmatized individual. This could refer to the threat of a perceived dangerous person, such as in the case of mental disabilities. Stigmas with a higher level of threat elicit greater negative reactions from others (Jones et al., 1984) and lead to lower rates of disclosure. Disruptiveness refers to how much the stigma causes a negative impact on social interactions. Some stigmas, such as mental illness (Jones & Stone, 1995) or homosexuality (Ragins, 2004), may not elicit fear from others but a feeling of discomfort around such individuals. The greater the level of disruptiveness, the less likely the individual will disclose.

The last stigma characteristic is stigma course, which is how the stigma changes over time. Some stigmas may become harder to hide over time, such as mental health problems, which would make an individual more likely to disclose (Jones et al., 1984). Additionally, there are differences in how self-aware and accepting an individual may be of their stigma. For example, an invisible stigma, like being LGB or having a learning disability, may reveal itself gradually to the individual. An individual is more likely to disclose an invisible stigma of which they are certain (Ragins, 2008). Each of these stigma characteristics influences disclosure decisions. Individuals are less likely to

disclose stigmas that are perceived as controllable, threatening, or disruptive within a certain environment because they are more likely to encounter negative reactions (Ragins, 2008).

### Internal Factors

The main internal psychological factor that influences disclosure decisions is how central the individual perceives the stigma to be to their self-concept. Self-verification theory states that individuals want others to see them as they see themselves (Swann, 1983; Swann, 1987), thus serving as a motivating factor for individuals with invisible stigmas to disclose. However, how the individual perceives themselves is crucial to this process. A stigmatized identity needs to be viewed as central to one's self-concept before the predictions of self-verification theory can be actualized. An individual's self-concept is based on one or more identities (Tajfel & Turner, 1986). An identity becomes central when it is valued, frequently used, and incorporated into the self-concept (Hogg & Terry, 2000). Ragins' (2008) model predicts that individuals with invisible stigmas are more likely to disclose their stigma when it is central to their self-concept. The majority of research in this area has examined LGB individuals. Specifically, LGB individuals with stronger identification to their sexual orientation are more likely to disclose at work (Button, 2001; Chrobot-Mason, Button, & DiClementi, 2001; Griffith & Hebl, 2002; Rostosky & Riggle, 2002) and to family and friends (Frable, Wortman, & Joseph, 1998). Research needs to be conducted on the on the role of the centrality of other invisible stigmatized identities, such as mental illness, low SES, and learning disability, in the disclosure process.

## Environmental Factors

The three environmental factors that impact disclosure include: the presence of others with the same stigma, the presence of supportive others who are not members of the stigmatized group, and institutional support for the stigmatized identity. Stigma researchers have found that the presence of similarly stigmatized others provide social support and counteract social isolation and rejection (Miller & Major, 2000), while also bolstering self-confidence (Jones et al., 1984). Additionally, the presence of similar others has been found to increase the likelihood of disclosure among individuals with invisible stigmas. Specifically, LGB workers have shown greater disclosure when their coworkers and supervisors were also LBG (Ragins, Singh, & Cornwell, 2007).

Other individuals do not have to share the same stigmatized status in order to be supportive to those with invisible stigmas. Ally relationships are supportive relationships that involve non-stigmatized individuals that advocate for the rights of stigmatized groups. Allies provide both social support and instrumental support for stigmatized individuals (Ragins, 2008). Research on the disclosure of LGB individuals demonstrates that social support from allies predicts gay identity disclosure to family, heterosexual friends, and coworkers (Franke & Leary, 1991; Jordan & Deluty, 1998; Ragins et al., 2007; Schneider, 1987). This has been hypothesized to work by increasing self-esteem which is related to the decision to disclose (Luhtanen, 2003). Additionally, ally relationships may provide an environment of trust which facilitates disclosure. Research on the disclosure of gay identity has been found to be increased in relationships that demonstrate trust (Boon & Miller, 1999; Miller & Boon, 2000).

In addition to supportive relationships, the environment itself may facilitate disclosure by providing instrumental support. Instrumental support for disclosure is “embedded in the culture, climate, practices, and policies of the organization or community” (Ragins, 2008, p. 205). The majority of the research done in this area has examined the work environment. Ragins (2004) reviews numerous studies that show that the presence of supportive policies and practices in workplaces increases disclosure of a gay identity among LGB workers. A supportive work environment and a trusting relationship with a supervisor has been found to lead to higher disclosure for individuals with mental illness as well (Rollins et al., 2002).

Other studies have examined the perception of a gay identity within a university environment. Sears (2002) examined faculty members’ perceptions of institutional climate towards gays at colleges and universities. Seventy-eight percent of respondents identified their institution as gay affirmative, gay tolerant, or gay neutral. Public institutions were 10 times more likely to be perceived as gay intolerant than private institutions. Institutional support validates and protects stigmatized individuals, which then increases the size of the stigmatized group (Ragins, 2008). As the size of the stigmatized group becomes larger the presence of similar others increases, which facilitates even more disclosure among stigmatized individuals.

The college environment has a significant effect on students’ willingness to disclose their sexual orientation. Heterosexist environments and perceived offensiveness was associated with a decreased likelihood of coming out in a study of LGB college students (Burn, Kadlec, & Rexer, 2005). Another study found that hostility expressed by peers prevents many students from coming out (D’Augelli, 1989). Rhoads (1994)

examined the experience of LBG students at a large, public institution and found that the campus climate was unwelcoming and isolating for LGB students. A qualitative study of 20 LGB students at Pennsylvania State University found that environmental factors had a large impact on whether or not students came out, including being around supportive people, perceiving the climate as supportive, and having LGB role models in the environment (Evans & Broido, 1999). Factors that discouraged coming out included a lack of community in the residence hall, lack of support, and active hostility. Students in this study noted advantages of coming out including pride, authenticity, and relief, in addition to disadvantages including distress of being labeled, fears of harassment and rejection, negative effects on academic performance because of involvement in LGB activities. Evans and Broido (1999) concluded that coming out behaviors were influenced by developmental readiness, audience, and context. More research is needed on the role of environmental factors of the disclosure process of other invisible stigmatized identities.

### Consequences of Disclosure

Disclosure of a concealable stigmatized identity may lead to more positive outcomes. Concealing a stigma may have psychological implications, such as anxiety, depression, guilt, demoralization, shame, social isolation, impaired close relationship functioning, and diminished self-efficacy (Pachankis, 2007). Revealing a concealed stigma may be advantageous due to the stress removal that results from having to no longer keep such a secret (Rosario et al., 2001). The stress that results from concealing a stigma can lead to a preoccupation with the control of stigma-relevant thoughts (Smart & Wegner, 1999). Research on disclosing amongst gays and lesbians suggests that

disclosing can lead to better interpersonal relationships (Beals & Peplau, 2001) and greater support from one's family (Kadushin, 2000). Disclosure may also be viewed as a form of voice (Creed, 2003) that could increase awareness, influence the culture of the organization (Bowen & Blackmon, 2003), and create social change (Meyerson & Scully, 1995).

However, there are disadvantages to disclosure as well. Disclosure of an invisible stigma could lead to discrimination, harassment, social isolation, and even violence (Clair, Beatty, & MacLean, 2005). LGB employees who have witnessed discrimination are less likely to disclose their gay identity in the workplace (Button, 2001; Ragins & Cornwell, 2001). Some studies show that revealing a history of mental illness can lead to worse academic performance in certain situations (Quinn, Kahng, & Crocker, 2004). Additionally, another study of lesbian sexual identity yielded evidence that self-conscious concern and negative attributions increased when the stigma was disclosed during a social interaction (Santuzzi & Ruscher, 2002). In a study of trichotillomania disclosure, individuals who disclosed were evaluated more negatively and more socially rejected than those who did not disclose (Marcks, Woods, & Ridosko, 2005). The disclosure of an LD can lead to individuals being viewed as incompetent by their employers and threatening their job security (Kakela & Witte, 2000; Madaus et al., 2002; Price et al., 2003). Disclosure of low income status may cause individuals to be labeled as a burden to society, as lazy, and irresponsible (Reutter et al., 2009). The collective findings of these studies show that while there are some advantages to disclosure, there are some serious potential negative consequences as well. An individual's view of the potential

consequences of disclosure will influence whether or not they make the decision to disclose.

Concealment and disclosure are not uniform across settings. Concealment of an invisible stigma is most difficult in those situations in which the stigma is salient, the threat of being discovered is high, and the consequences of being discovered are severe (Pachankis, 2007). Research indicates that disclosure of an invisible stigma varies across a dimension ranging from total disclosure on one end to nondisclosure on the other end (Ragins & Cornwell, 2001). Due to the potential uneven disclosure across settings, this study will examine the role of disclosure on psychological symptoms separately for disclosure at school and disclosure outside of school.

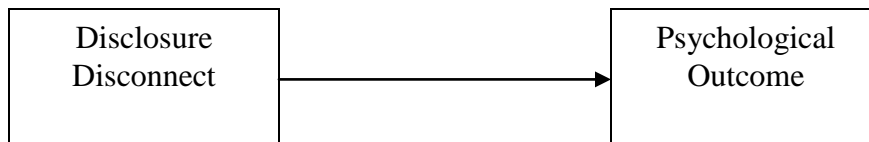
#### Disclosure Disconnects

Differences in disclosure across settings, also called disclosure disconnects, can lead to “psychological stress, role conflict, and attributional ambiguity” (Ragins, 2008, p. 207). Ragins (2008) suggests that when an individual does not disclose in any setting they are in a state of identity denial, where they are aware of their stigmatized identity but keep it concealed. Due to the negative implications of concealing a stigma (Pachankis, 2007), this type of situation may create the most stress for an individual. Individuals who disclose their stigma in varying degrees across different settings experience identity disconnects (Ragins, 2008). Identity disconnects can also lead to psychological stress because self-verification theory states that individuals need to present themselves congruently across settings to avoid negative psychological outcomes (Swann, 1983, 1987). Individuals who disclose fully across settings are said to have identity integration and experience the most positive psychological outcomes (Ragins, 2008). This theory

suggests that disclosure will only lead to positive psychological outcomes when it is consistent across different settings or life domains. The degree to which individuals disclose across settings may predict psychological outcomes (see Figure 2).

Figure 2.

Disclosure disconnect leads to negative psychological outcomes.



Rationale

The aim of this study was to test Ragins' (2008) model of the factors that predict disclosure of an invisible stigma and to examine the role of disclosure and disclosure disconnects in mental health outcomes among a college student sample. The study of stigma is important because stigmatization results in various forms of discrimination and negative health outcomes for stigmatized individuals (Corrigan, 2005). Invisible stigmas are especially important to study because individuals have to make decisions about disclosure, which can lead to both positive and negative outcomes (Pachankis, 2007; Rosario et al., 2001). Additionally, college students are an important population to study the disclosure process of invisible stigmatized identities because it is an important stage in identity development (Nurmi, 2004; Schwartz, Cote, & Arnett, 2005).

This investigation also has implications for the mental health of individuals with invisible stigmas. Research demonstrates that there are negative psychological consequences for both concealing (Pachankis, 2007) and disclosing an invisible stigmatized identity (Clair, Beatty, & MacLean, 2005). By better understanding the



factors that contribute to disclosure, negative psychological effects may be reduced. Additionally, college is an important time for identity formation (Berk, 2000) and thus may lead to greater disclosure of stigmatized identities. Through the knowledge gleaned from this study, colleges may be better equipped to ensure that students feel as supported as possible by the college environment when disclosing an invisible stigma.

### Statement of Hypotheses

Hypothesis 1: It was predicted that the model (see Figure 1) proposed by Ragins (2008) of the factors that predict the total disclosure of an invisible stigmatized identity would be a good fit to the data among students with mental health problems, learning disabilities, of low SES, and who are lesbian, gay or bisexual.

Hypothesis 2: It was predicted that disclosure disconnect (i.e., uneven disclosure across settings) would predict negative psychological outcomes. Specifically, more disclosure disconnect would predict more symptoms on the Global Severity Index on the Brief Symptom Inventory (Derogatis, 1993).

Hypothesis 3: It was predicted that less disclosure in the school setting would predict more psychological symptoms. Specifically, the less participants disclose in the school setting, the more symptoms they would report on the Global Severity Index on the Brief Symptom Inventory (Derogatis, 1993).

Hypothesis 4: It was predicted that less disclosure outside of the school setting would predict more psychological symptoms. Specifically, the less participants disclose outside of school, the more symptoms they would report on the Global Severity Index on the Brief Symptom Inventory (Derogatis, 1993).

## CHAPTER II

### METHOD

#### Context

Participants were recruited from an urban, private university in the Midwest. The total undergraduate enrollment at the university being studied is 15,782 students (<http://www.depaul.edu/emm/facts/index.asp#top>). The university operates in a quarter system in which there are three quarters during the academic school year. Approximately 525 students are enrolled in introductory psychology courses each quarter, which is where participants were recruited for this study.

In 2008, the total first-year student enrollment at this university was 2,500 students. Of those, 766 (30%) were first-generation first-year college students, from families where neither parent have a college degree, enrolled at the university (Kalsbeek, 2009). Additionally, 671 (27%) first-year students enrolled at the university in 2008 were Pell grant recipients (Kalsbeek, 2009), indicating lower income status. In 2003, the Office of Lesbian, Gay, Bisexual, Transgender, Questioning, and Allies (LGBTQA) Student Services conducted a climate survey of the LGBT community at the university. Of the 995 undergraduate students who completed the survey, 9.2% identified as lesbian, gay, bisexual, transgender, or questioning and 55.8% reported having an LGBTQ friend at DePaul (Office of LGBTQA Student Services, 2004). It is important to note that the current study is only examining students who are lesbian, gay, and bisexual. The Productive Learning Strategies (PLuS) Program at the university is a year-round comprehensive program designed to meet the needs of students with specific learning disabilities and/or attention deficit disorders. During the 2005-2006 academic year, PLuS

served a total of 216 undergraduate students (<http://www.studentaffairs.depaul.edu/plus/>). During the 2008-2009 academic year, University Counseling Services at the university saw 879 undergraduate students for counseling services (i.e., Intake, Walk-in/Crisis, Individual, Couples or Group Counseling, and/or Psychiatric Evaluation, Medication Management) (M. Wadland, personal communication, September 10, 2009). It is important to note that these statistics are an underestimate of the true number of undergraduate students with these identities because these statistics represent only those students who have disclosed their identity or who have accessed services at the university.

### Participants

A purposive convenience sampling design was employed to recruit college students as participants in order for them to fulfill a course requirement in Introduction to Psychology. Students had the choice to participate in research and/or summarize journal articles to fulfill a research requirement in the course.

This study included 254 undergraduate students who completed the on-line survey. The mean age was 20.68 years ( $SD = 3.76$ ). With regard to gender, 179 of the participants were female (70.8%), 73 were male (28.9%), and 1 reported other. The race/ethnicity of the participants was 162 White (63.8%), 56 Latino/a (26%), 25 African American (9.8%), 13 Asian (5.1%), 7 other (2.8%), and 1 Native American (0.4%). Eighty-two of the participants reported living on-campus (32.8%), while 168 reported living off-campus (67.2%). Ninety-one of the participants were freshman (36.4%), 64 were sophomores (25.6%), 44 were juniors (17.6%), and 51 were seniors (20.4%).

### Procedure

The survey that was used in this study was initially piloted with 14 undergraduate students. Three participants identified as LGB, 4 identified as having a learning disability, 3 identified as having mental health problems, and 4 identified as low social class. These pilot participants were asked for their feedback on the clarity and ease of the measures and on the appropriateness of the terms used for each identity. Every participant reported that the survey was somewhat clear or very clear. It took participants approximately 7 to 30 minutes to complete the survey. The measures were edited based on their responses.

The survey was created using the SurveyMonkey website and then placed on the DePaul University experiment management system. Students enrolled in Introductory Psychology courses were able to sign on to the experiment management system and complete the survey. Informed consent was conducted with each participant. Students were asked to complete the survey only if they identified with one of the four identity types being analyzed in this study. Participants were recruited during 3 consecutive academic quarters beginning in January 2010 and ending in November 2011. Students were compensated by receiving credit in their Introductory Psychology course for research participation.

### Measures

The survey is composed of several measures that assess the various proposed predictors of disclosure of a concealable stigmatized identity. There was a separate survey for each of the four identities being examined in this study. The questions on each

of the four surveys were the same, with the only difference being the name of the specific identity written in the question. The total number of items on the survey is 136 questions.

### Invisible Identities

Participants were asked to self-report whether they identify as any of the four invisible identities in this study (see Appendix A). Self-report was chosen because identifying as these specific identity types may involve some subjectivity. Based on the piloting of measures and students' feedback, the terms used for each identity were mental health problems; learning disability; low social class; and lesbian, gay, or bisexual (LGB). Additional questions were asked based upon identity type. Participants with mental health problems were asked if they have ever received a diagnosis from a professional, what that diagnosis was, and if they have ever participated in psychological treatment. Students with learning disabilities were asked if they ever received a diagnosis from a professional and what that diagnosis was.

The remaining measures are included in Appendix B.

### Stigma Characteristics

The stigma characteristics include: *controllability*, *peril or threat*, *disruptiveness*, and *course*. There are no established measures that have examined these variables. Questions were created by the researcher to assess these constructs. Each question asks how much the respondent agrees with the given statement based on a 5-point Likert scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). There are five questions for each of the four stigma characteristics. The characteristics of controllability, peril/threat, and disruptiveness represent *not* how an individual perceives their stigma but how the stigma is perceived globally.

Controllability refers to how much responsibility an individual is perceived to have in creating their stigmatized condition (Cronbach's  $\alpha = 0.51$ ). A sample item for *controllability* is "In general, people at this school believe those who have a mental health problem are responsible for their condition." An item by item reliability analysis indicated that reliability was greatly improved (original Cronbach's  $\alpha = 0.14$ ) when the item "In general, people at this school believe those with (identity type) are able to change" was deleted. Peril/threat refers to how threatening others may view a stigmatized identity (Cronbach's  $\alpha = 0.84$ ). A sample item to assess *peril/threat* is "In general, people at this school feel threatened by LGB individuals." Disruptiveness refers to how much the stigma causes a negative impact on social interactions (Cronbach's  $\alpha = 0.75$ ). A sample item to assess *disruptiveness* is "In general, people at this school avoid talking about learning disabilities." Stigma course involves how a stigma changes over time and its final outcome (Cronbach's  $\alpha = 0.58$ ). A sample item to assess *course* is "My social class is unchanging over time." An item by item reliability analysis indicated the reliability was improved (original Cronbach's  $\alpha = 0.46$ ) when the item "I expect my acceptance of my (identity type) to increase in the future" was deleted. The variable was created for each characteristic by summing the participants' responses on the items related to that characteristic, with 5 being the lowest score and 25 being the highest.

### Internal Factors

The internal factor measured in this study is the extent to which a stigmatized identity is central to an individual's self-concept. This construct was assessed by the Identity subscale of the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992). The Collective Self-Esteem Scale has been found to have high validity and reliability

(Cronbach's  $\alpha = .85$ ) with ethnically diverse undergraduate students (Luhtanen & Crocker, 1992). The internal consistency of the measure in this study was also high (Cronbach's  $\alpha = 0.79$ ). The Identity subscale consists of 4 questions designed to assess the importance of one's social group memberships to one's self-concept and is measured on a 5-point Likert-type scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). For the purposes of this investigation, the words "social groups" within the items have been replaced by the specific stigmatized identity. A sample item is, "My LGB identity is an important reflection of who I am." The variable, *centrality to identity* was created by summing each participant's responses on these 4 items with higher scores indicating the stigmatized identity as more central to one's self-concept.

#### Environmental Factors

The three environmental factors that were assessed include: the *presence of similar others* with the same stigma, the *presence of supportive others* who are not members of the stigmatized group, and *institutional support* for the stigmatized identity. The *presence of similar others* was assessed in a comparable method to what was used in a study of disclosure of an LGB identity in the workplace (Ragins, Singh, & Cornwell, 2007). Four items were used to measure perceptions of others within the school environment who share the respondents' stigmatized identity. There was one item for each of the following groups: other students, friends at school, faculty, and staff. Respondents were asked how many of each of these groups share the stigmatized identity and given the following options: *none* (1), *few* (2), *equal balance* (3), *most* (4), and *don't know* (5). A sample item is, "At this school, how many other students are LGB?" The variable *presence of similar others* was created by averaging each participant's response

to these four items, excluding “I don’t know” responses. Higher scores on this variable mean a greater presence of similar others. The measure was found to have high internal consistency (Cronbach’s  $\alpha = 0.74$ ).

The *presence of supportive others* was assessed by the Perceived Social Support from Friends Scale (PSS-Fr; Procidano & Heller, 1983). This scale has good reliability (Cronbach’s  $\alpha = .88$ ) and test-retest reliability ( $r = .83$  over 1 month interval) (Procidano & Heller, 1983). The measure had high internal consistency in this study as well (Cronbach’s  $\alpha = 0.92$ ). It is a 20-item scale measured on 5-point Likert-type scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Ten of the items are reverse scored. Sample items include: “I rely on my friends for emotional support” and “My friends are sensitive to my personal needs.” Participants in this study were instructed to only answer based on friends at school who do not share their stigmatized identity. The variable *presence of supportive others* was created by reverse scoring 10 of the items and summing each participant’s response to the items on this scale, with higher scores indicating more support. Possible scores range from 20 to 100.

*Institutional support* was assessed by the University Environment Scale (UES; Gloria & Robinson Kurpius, 1996). This scale consists of 14 items and is designed to assess student perceptions of the university environment. The scale was normed on Latino and Latina undergraduate students and reported internal Chronbach alphas of .81 and .85 respectively (Gloria & Robinson Kurpius, 1996). The measure has been predominantly used to assess the perceptions of ethnic minority students. Given that ethnic minorities are stigmatized groups, the scale should be appropriate for invisible stigmatized students as well. In this study the internal reliability was similar to that



reported in previous studies (Cronbach's  $\alpha = 0.87$ ). Two sample items include "University staff have been warm and friendly" and "The university seems to value students who have mental health problems." A 5-point scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*) was used with higher scores reflective of more positive perceptions of university environment. Participants' responses were summed to create the variable of *institutional support*, and possible scores will range from 14 to 70.

### Consequences of Disclosure

In order to assess perceived consequences of disclosure, 14 items were created based upon the research on both the positive and negative consequences of disclosure (Bowen & Blackmon, 2003; Creed, 2003; Meyerson & Scully, 1995; Ragins et al., 2007). There are two subscales, positive and negative, and each include 7 items. The questions use a 5-point response format ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). The questions that assess the negative consequences of disclosure were modified from the Fear of Disclosure Scale (Ragins et al., 2007) used in a study of sexual orientation disclosure in the workplace. An example item is "If I disclosed my learning disability to everyone at school, people would avoid me." Questions aimed to assess the positive consequences of disclosure were based on past research (Bowen & Blackmon, 2003; Creed, 2003; Meyerson & Scully, 1995) and include items such as "If I disclosed my LGB identity to everyone at school I would feel a sense of relief" and "I could be a mentor for other LGB students." The negative consequence items were summed to create the variable *negative anticipated consequences of disclosure* and the positive consequence items were summed to create the variable *positive anticipated consequences of disclosure*. There was high internal reliability for both negative consequences and

positive consequences of disclosure subscales (Cronbach's  $\alpha = 0.82$  and  $0.84$ , respectively). Possible scores range from 7 to 35 on each subscale. The variable *total anticipated consequences of disclosure* was created by subtracting the *negative anticipated consequences of disclosure* score from the *positive anticipated consequences of disclosure* score.

### Total Disclosure

To assess disclosure decisions, participants were asked separately how many students, faculty members, and staff members to whom they have disclosed their concealable stigma. There are 5 response choices including: (0) None, (1) A couple of them, (2) Several of them, (3) Most of them, and (4) All of them I've been in contact with. These items are similar to the degree of disclosure item used in other studies (Ragins et al., 2007; Rostosky & Riggle, 2002; Smith & Ingram, 2004; Waldo, 1999). The participants' responses to these three items were summed to create the variable *disclosure at school*, with higher scores indicating more disclosure. Possible scores range from 0 to 12. A score of 0 indicates total non-disclosure and a score of 12 indicates total disclosure.

### Disclosure Disconnects

Disclosure disconnects refer to differences in disclosure across settings. To assess this construct, participants were asked separately the number of family members, friends, and employers/co-workers outside of school to whom they have disclosed their concealable stigma. The same response choices used for assessing disclosure decisions in school, as mentioned above, were used. The participants' responses to these three items will be summed to create the variable *disclosure outside of school*. Possible scores

range from 0 to 12. A score of 0 indicates total non-disclosure and a score of 12 indicates total disclosure. A disclosure disconnect is defined by Ragins (2008) as a difference in disclosure across settings. The score for disclosure outside of school was subtracted from the score for disclosure at school to create the *disclosure disconnect* variable (the absolute score was used). Disclosure disconnect scores range from 0 to 12, with higher scores indicating greater disclosure disconnect.

### Psychological Symptoms

Research is inconclusive on whether disclosure of a concealable stigma has the potential to reduce or increase psychological symptomatology (Clair, Beatty, & MacLean, 2005; Pachankis, 2007; Rosario, et al., 2001). In order to assess psychological symptoms in this study, participants completed the Brief Symptom Inventory (BSI; Derogatis, 1975). The BSI is a 53-item measure where respondents rank each feeling item (e.g., “your feelings being easily hurt”) on a 5-point scale ranging from 1 (*not at all*) to 5 (*extremely*). Responses characterize the intensity of distress during the past seven days. The reliability, validity, and utility of the instrument have been tested in more than 400 studies (Derogatis, 1993). The measure was found to have high internal reliability in this study as well (Cronbach’s  $\alpha = 0.98$ ). The instrument has a Global Severity Index, which measures current or past level of symptomatology. T scores were calculated for each participant based on the mean and standard deviation of the normative population and a T score of 63 and above is considered to be in the clinical range.

## CHAPTER III

### RESULTS

#### Participants' Identity Types

One hundred thirty-three (52.4%) participants reported being from a low social class background, 76 (29.9%) reported having a mental health problem, 72 (28.3%) reported being lesbian, gay or bisexual, and 58 (22.8%) reported having a learning disability. Participants completed the survey for each identity type they reported. Of the participants included in the study, 195 (76.8%) reported having only one of the four identity types, 54 (21.3%) reported having two identity types, and 5 (2.0%) reported having three identity types. Analyses were conducted separately for all four identity types combined and again for each single identity type. For the analyses that included all of the identity types, one identity was selected for each participant based on the identity they rated highest on the centrality to identity variable. Ten participants rated their dual identities as being equally central to their identity and were excluded from analyses. Taking these changes into account the final sample size for study analyses with the four identities combined was 254 participants.

If students reported having a learning disability, they were asked to state their diagnosis if they received one. Of the diagnoses reported 41 (75.9%) had Attention-Deficit/Hyperactivity Disorder, 6 (11.1%) had dyslexia, and 1 (1.8%) had dysgraphia. Students with mental health problems were also asked to provide a diagnosis if they ever received one. Thirteen (18.3%) had depression, 6 (8.4%) had anxiety, 5 (7.0%) had Bipolar Disorder, 4 (5.6%) had an eating disorder, 2 (2.8%) had Obsessive-Compulsive Disorder, 1 (1.4%) had Post-Traumatic Stress Disorder, and 29 (40.8%) had multiples

diagnoses. Sixty-four (90.1%) participants who identified as having a mental health problem had received treatment at some point and 7 (9.9%) reported never receiving treatment.

### Preliminary Analysis

Means and standard deviations were calculated for each study variable (see Table 1). Skewness and kurtosis were analyzed to ensure the assumptions of normality were met. The variables disclosure at school and psychological symptoms were positively skewed. A square-root transformation was applied to these variables. After these transformations, all variables were found to be normally distributed by the Shapiro-Wilk test of normality and visual inspection of histograms and Q-Q plots.

Table 1.

Means and Standard Deviations for all Study Variables

Variable	M	SD	Skew S. E. = 0.16	Kurtosis S.E. = 0.31
Control	10.47	2.40	-0.13	0.55
Peril/threat	11.72	3.91	0.31	0.07
Disruptiveness	13.95	3.75	0.08	-0.13
Course	13.18	2.90	0.31	0.08
Centrality to identity	14.62	4.39	-0.01	-0.38
Presence of similar others	9.27	3.88	-0.04	0.62
Supportive relationships	68.47	12.70	-0.25	-0.08
Institutional support	52.37	8.27	-0.34	0.55
Disclosure at school	2.38	2.36	0.06	-0.18
Disclosure outside of school	5.07	3.15	0.33	-0.66
Disclosure disconnect	3.50	2.18	0.30	0.13
Total consequences	3.86	6.84	0.09	-0.02
Psychological symptoms	62.03	17.25	0.41	-0.07

Bivariate Pearson Correlations were conducted in order to assess the associations among the main variables of interest (Table 2). Many of the variables were significantly correlated with other variables. Total disclosure was significantly positively correlated with centrality to identity, supportive relationships, institutional support, and total consequences. Psychological symptoms were significantly positively correlated with peril/threat, disruptiveness, centrality to identity, and total consequences. Psychological

symptoms were significantly negatively correlated with supportive relationships and institutional support.

Table 2.

Bivariate Pearson Correlations between Study Variables

	Controll- ability	Peril/ threat	Disruptive- ness	Course	Centrality to Identity	Similar Others	Supp. Rel.	Inst. Supp.	Total Disc.	Total Cons.
Controllability	1									
Peril/threat	0.44**	1								
Disruptiveness	0.41**	0.64**	1							
Course	0.11	0.12*	0.12*	1						
Centrality To Identity	0.11*	0.15**	0.13*	-0.21**	1					
Similar Others	-0.18**	-0.08	-0.08	-0.04	-0.01	1				
Supportive Relationships	-0.24**	-0.23**	-0.28**	0.01	-0.08	0.00	1			
Institutional Support	-0.29**	-0.35**	-0.29**	0.07	-0.06	0.13*	0.37**	1		
Total Disclosure	-0.08	-0.02	-0.09	-0.13*	0.21**	-0.09	0.21**	0.15**	1	
Total Consequences	-0.02	0.21**	0.19**	-0.20**	0.32**	0.10	0.13**	0.01	0.20**	1
Psychological Symptoms	0.13*	0.15**	0.18**	-0.27**	0.23**	0.09	-0.28**	-0.27**	-0.06	0.17**

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

The associations between the demographic variables and psychological symptoms were examined using Analysis of Variance (ANOVA; see Table 3) in order to determine if any demographic characteristics should be controlled for in later analyses. The demographic characteristics that were significantly related to psychological symptoms were gender and White ethnicity. Specifically, women reported more psychological symptoms than men and individuals who identified as White reported more psychological symptoms than individuals who did not identify as White. The associations between identity types and psychological symptoms were also examined ANOVA (see Table 4). Post-hoc analyses (Tukey test) indicated individuals who identified with having mental health problems were more likely to report psychological symptoms than individuals identifying as LGB ( $p < .05$ ), LD ( $p < .05$ ), or of low SES ( $p < .0001$ ). Further, individuals who reported having two identities were significantly more likely to report psychological symptoms than individuals with one identity ( $p < .0001$ ).



Table 3.

Associations between Demographic Variables and Psychological Symptoms

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
Male	71	56.49	14.19	6.43	0.002**
Female	174	64.52	17.85		
Other	1	41.90			
African American	24	60.06	18.71	0.35	0.56
Non African American	223	62.24	17.12		
Asian	12	57.21	10.14	0.99	0.32
Non Asian	235	62.28	62.28		
White	160	64.52	17.39	9.79	0.002**
Non White	87	57.46	16.12		
Native American	1	86.83		2.08	0.15
Non Native American	246	61.93	17.21		
Latino/a	53	59.13	17.97	1.92	0.17
Non Latino/a	194	62.83	17.01		
Freshman	91	64.02	18.18	1.35	0.26
Sophomore	63	62.99	18.38		
Junior	42	58.06	14.73		
Senior	48	60.43	15.76		
Live on-campus	81	63.06	18.42	0.41	0.52
Live off-campus	163	61.55	16.73		

\*\*Significant at the 0.01 level (2-tailed)

Table 4.

Association between Identity Type and Number and Psychological Symptoms

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
LGB	56	61.55	16.47	7.10	0.00**
LD	37	59.74	16.16		
Low SES	95	58.00	17.00		
Mental illness	59	70.42	16.52		
One identity	189	59.34	15.79	10.61	0.00**
Two identities	53	71.02	19.68		
Three identities	5	68.46	9.13		

\*\*Significant at the 0.01 level (2-tailed)

Primary AnalysesHypothesis 1

It was predicted that the model proposed by Ragins (2008; see Figure 1) of the factors that predict the total disclosure of an invisible stigmatized identity would be a good fit to the data among students with mental health problems, learning disabilities, of low SES, and who are lesbian, gay or bisexual. The model was tested using a structural equation modeling (SEM) approach with AMOS 7.0 software (Joreskog & Sorbom, 1993). The characteristics of the sample and the variables measured warranted the use of the *maximum likelihood* estimation model to test these pathways. Amos 7.0 tested these pathways by converting the raw data into a covariance matrix (Schumacker & Lomax, 2004). The covariance matrix was then used to assess the proposed path model (Schumacker & Lomax, 2004). After completing path modeling with Amos 7.0, fit

statistics were reviewed to determine whether the model is a good fit to the data. Schumacker and Lomax (2004) note that chi-square should have a  $p$ -value that is greater than .05 in order for the model to be considered a good fit to the data. An additional indicator of goodness of fit is the Tucker-Lewis Index (TLI). Models that have a TLI statistic of .95 or higher are considered a good fit to the data (Hu & Bentler, 1999). A root-mean-square error of approximation (RMSEA) that is less than .05 and a comparative fit index (CFI) that is close to .95 or higher (Schumacker & Lomax, 2004) are also indicators of good fit to the data.

The model initially did not represent a good fit to the data ( $\chi^2(32, N = 254) = 164.92, p < .0001, CFI = 0.68, TLI = 0.45, RMSEA = 0.13$ ). The model was then modified from its original design to make it more conceptually and empirically sound. The observed variable *course* was not a good predictor of the latent variable *stigma characteristics* ( $r = 0.12$ ) and was thus removed from the model. *Course* was not found to have high reliability as a measure. Also, *course* was measured in a different way than the other stigma characteristics variables, such that participants were asked to answer those questions from their own point of view and not from the point of view of others. This is a probable reason why *course* did not align with the other predictor variables of stigma characteristics.

The observed variable *presence of similar others* was determined to not be a good predictor of environmental factors ( $r = 0.03$ ), and was changed within the model to be a separate variable that directly predicted disclosure. A possible explanation for this is the other predictor variables of environmental factors, *institutional support* and *supportive relationships*, were measuring the supportive aspect of the environment; whereas

*presence of similar others* was simply a rating of how many similar others were present at the university regardless of support. After these changes were made the model was rerun and was found to be an acceptable fit to the data ( $\chi^2(22, N = 254) = 46.50, p = .002$ ; CFI = .94, TLI = .88, RMSEA = .07). The variance in the dependent variable explained by the predictors variables was 19% ( $R^2 = 0.19$ ). The predictor variables perceived consequences, centrality to identity, and presence of similar others were all found to be significant.

The model with mental illness only ( $\chi^2(23, N = 122) = 24.87, p = .36$ ; CFI = .98, TLI = .96, RMSEA = .03) was judged as being the best overall fit to the data. The model with LGB only ( $\chi^2(24, N = 72) = 34.73, p = .07$ ; CFI = .93, TLI = .90, RMSEA = .08) was determined to be an acceptable fit to the data. The models with SES only ( $\chi^2(23, N = 133) = 38.63, p = .02$ ; CFI = .88, TLI = .76, RMSEA = .07) and learning disability only ( $\chi^2(23, N = 58) = 62.17, p = .000$ ; CFI = .60, TLI = .21, RMSEA = .17) were not indicated as being overall good fits to the data. The Akaike Information Criterion (AIC), a statistic designed to compare models and take parsimony and fit into account also suggests the models with mental illness only (AIC = 86.87) and with LGB only (AIC = 94.73) are better fitting to the data than the model with SES only (AIC = 100.63) and learning disability only (AIC = 124.17) (lower values indicate better fit; Burnham & Anderson, 2002). AIC differences between three and seven indicate considerably less support for the model with the higher AIC (Burnham & Anderson, 2002). All models and their path coefficients are presented in Figures 3a - 3e.

Figure 3a.

Structural equation model for all identity types combined. (e = error)

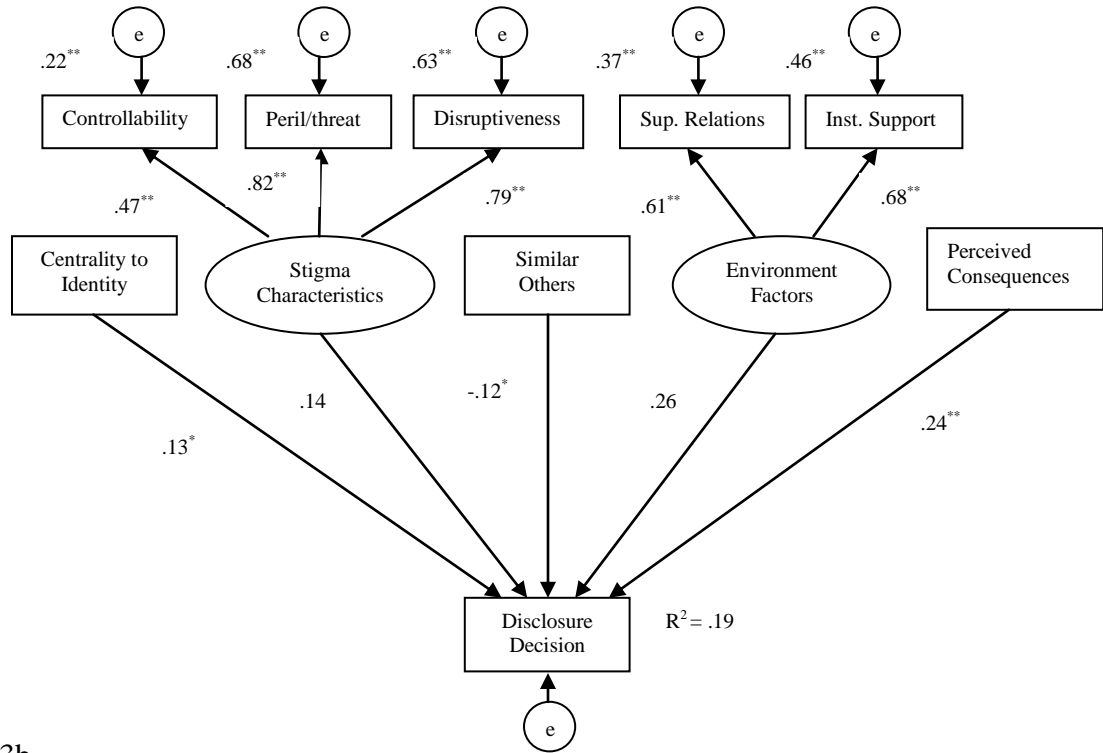


Figure 3b.

Structural equation model for LGB only. (e = error)

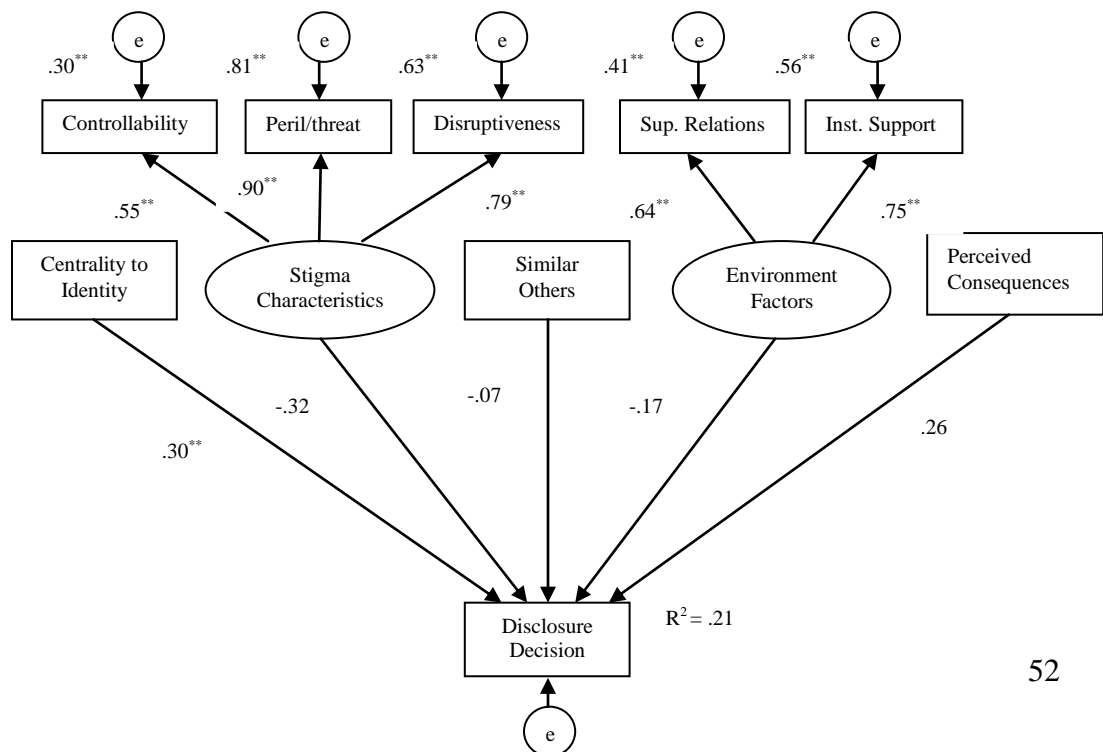


Figure 3c.

Structural equation model for mental illness only. (e = error)

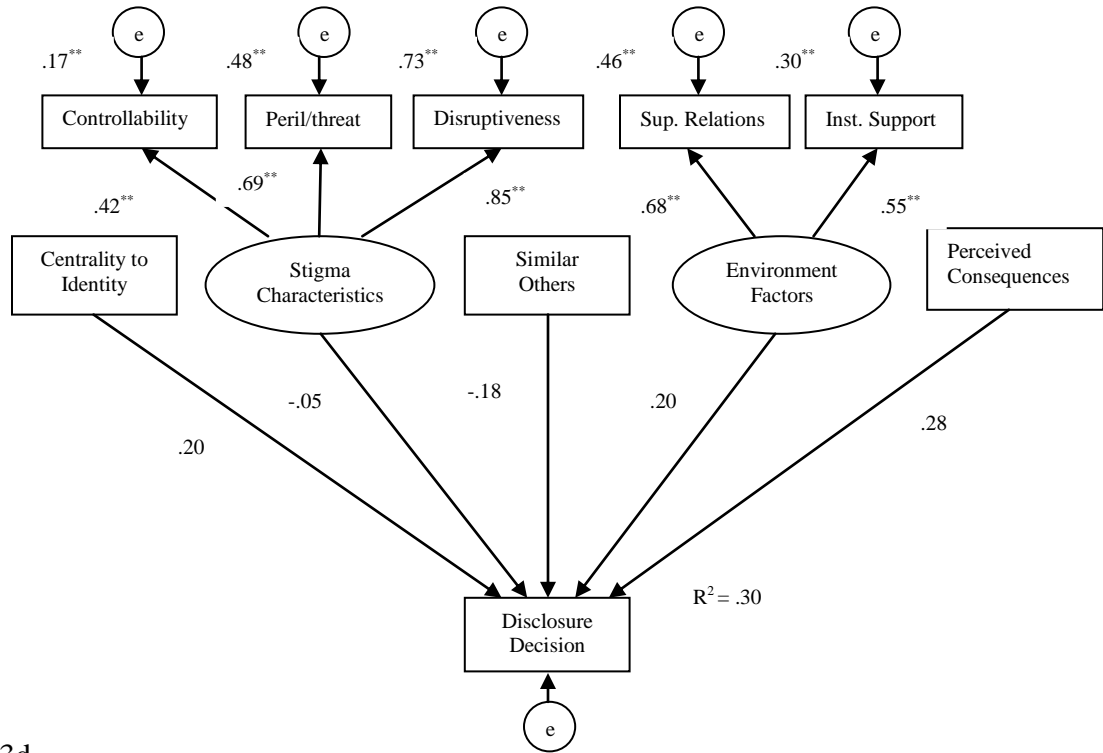


Figure 3d.

Structural equation model for learning disability only. (e = error)

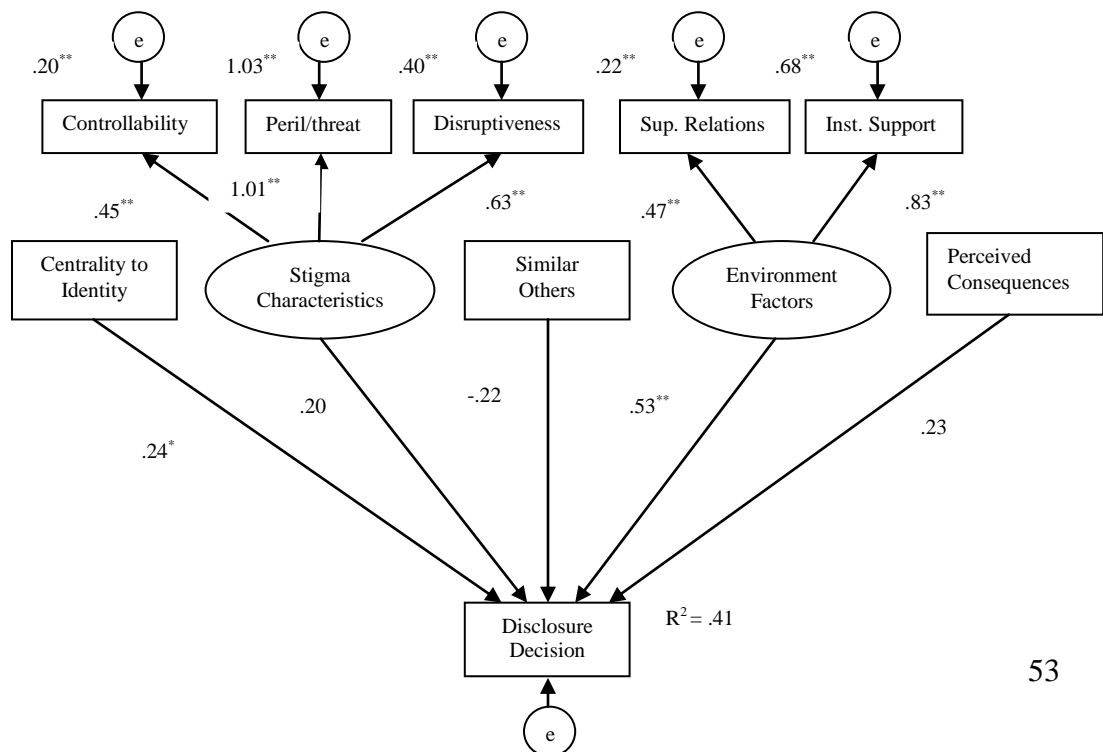
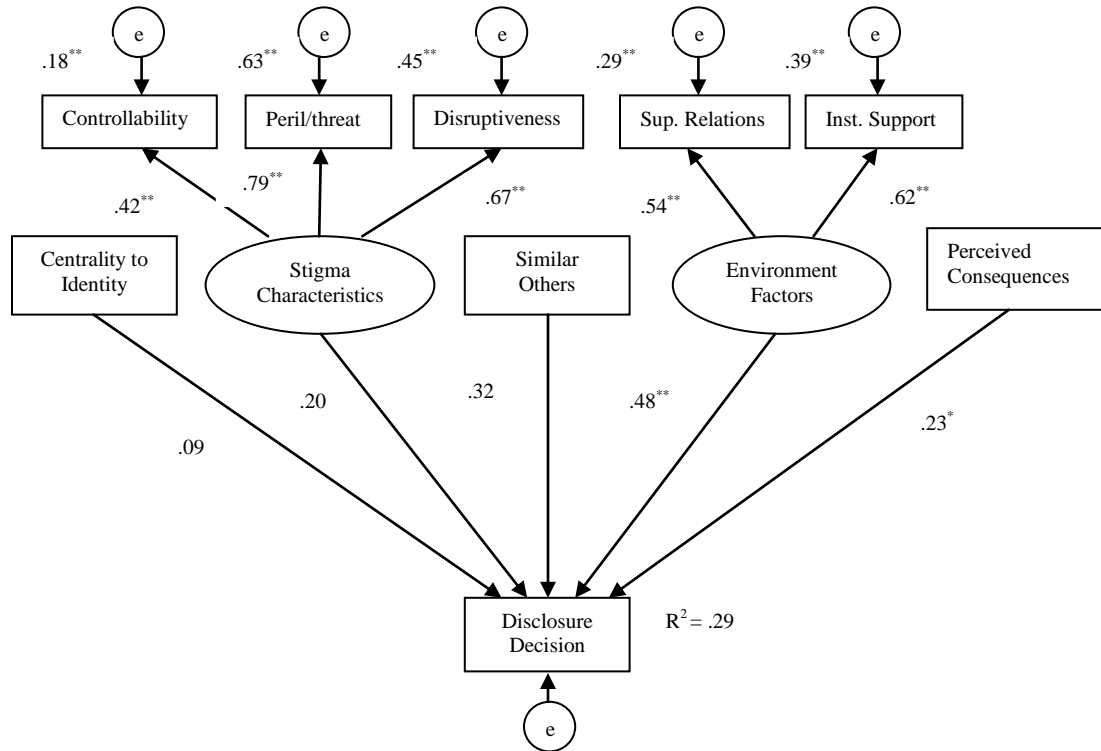


Figure 3e.

Structural equation model for low SES only. (e = error)



As shown in Figures 3a-3e, the variance in disclosure explained by the predictor variables ranged from 0.19 to 0.41 across models. The standardized regression coefficients indicate that the strongest predictors of school disclosure differed based on identity type as well. Within the LGB model centrality to identity was found to be a significant predictor to disclosure. For the learning disability model the significant predictors to disclosure were centrality to identity and environmental factors. The significant predictors to disclosure in the low SES model were environmental factors and perceived consequences. None of the predictors to disclosure were determined to be significant in the mental illness model, however, perceived consequences had the largest path coefficient.

## Hypothesis 2

It was predicted that disclosure disconnect (i.e., uneven disclosure across settings) would predict negative psychological outcomes. Specifically, more disclosure disconnect would predict more symptoms on the Global Severity Index on the Brief Symptom Inventory (Derogatis, 1993). The relationship between disclosure disconnect and psychological outcomes was analyzed by hierarchical multiple regression, using disclosure disconnect as the predictor, psychological symptoms as the outcome variable, and controlling for the type of invisible stigmatized identity as well as multiple identities, gender, and white ethnicity (Table 5). Only participants who have a discrepancy between their two disclosure scores were categorized as having a disconnect, and thus are included in these analyses. There were 205 participants who were categorized as having a disclosure disconnect. The majority of participants ( $N = 115$ , 55.3%) had a disclosure disconnect score of 3 or less, indicating a small discrepancy between disclosure outside of school and disclosure at school. Control variables were entered in the first step of the regression, and then disclosure disconnect was entered in the second step. After controlling for gender, White ethnicity, identity type, and multiple identity, disclosure disconnect was not a significant predictor of psychological symptoms ( $t = 0.31$ ,  $p = 0.76$ ).



Table 5.

The Role of Disclosure Disconnect in Psychological Symptoms for all Identity TypesCombined

<i>Predictors</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
Step 1					
Gender	-6.61	2.49	-0.17	-2.65	0.009**
White Ethnicity	-7.27	2.33	-0.20	-3.11	0.002**
Identity Type	1.48	1.06	0.09	1.39	0.17
Multiple Identities	11.17	2.34	0.31	4.76	0.000**
Step 2					
Gender	-6.31	2.25	-0.17	-2.81	0.005**
White Ethnicity	-6.63	2.19	-0.18	-3.03	0.003**
Identity Type	1.73	0.96	0.11	1.81	0.07
Multiple Identities	9.34	2.15	0.26	4.34	0.000**
Disclosure Disconnect	0.16	0.51	0.02	0.31	0.76

Note:  $R^2 = 0.16$ , Adjusted  $R^2 = 0.002$

\*\* Significant at the 0.01 level (2-tailed).

Given that disclosure was measured at school and outside of school, students who lived on or off campus were further analyzed to see if they differed on disclosure disconnect. A one-way ANOVA was conducted, and it was found that students who lived off campus reported statistically significant higher levels of disclosure disconnect ( $M = 3.41$ ;  $SD = 2.56$ ) compared to students who lived on campus ( $M = 2.05$ ;  $SD = 1.68$ ),  $F(1, 241) = 18.35$ ,  $p < .000$ . Students who lived off campus ( $M = 2.25$ ;  $SD = 2.39$ ) did not have significantly different levels of disclosure within the school setting compared to students on campus ( $M = 2.62$ ;  $SD = 2.29$ ) ( $F(1, 242) = 1.33$ ,  $p = .250$ ).

However, students who lived off campus reported significantly higher levels of disclosure outside of the school setting ( $M = 5.47$ ;  $SD = 3.28$ ) compared to students who lived on campus ( $M = 4.22$ ;  $SD = 2.65$ ),  $F(1, 241) = 8.80$ ,  $p = .003$ ). Students living off campus have higher levels of disclosure disconnect because of higher levels of disclosure outside of the school setting. Overall, participants reported significantly greater disclosure outside of the school setting ( $M = 5.07$ ;  $SD = 3.15$ ) than within the school setting ( $M = 2.38$ ;  $SD = 2.36$ ),  $t(246) = -15.28$ ,  $p < .0001$ .

Regressions were also conducted to analyze the relationship between disclosure disconnect and psychological symptoms for each identity type separately (Table 6). After controlling for gender, White ethnicity, and multiple identities, disclosure disconnect was not a significant predictor of psychological symptoms for individuals with learning disabilities ( $t = 1.04$ ,  $p = 0.30$ ), LGB individuals ( $t = 0.03$ ,  $p = 0.98$ ), low SES individuals ( $t = .81$ ,  $p = 0.42$ ), or individuals with mental health problems ( $t = -1.33$ ,  $p = 0.19$ ).

Table 6.

The Role of Disclosure Disconnect in Psychological Symptoms for each Identity Type

<i>Group</i>	<i>Predictors</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
LGB	Step 2 ( $R^2=0.16, \Delta R^2=0.00$ )					
	Gender	-0.69	0.38	-0.21	-1.81	0.08
	White Ethnicity	-0.52	0.39	-0.16	-1.32	0.19
	Multiple Identities	0.97	0.34	0.34	2.88	0.005**
	Disclosure Disconnect	0.00	0.07	0.00	0.03	0.98
Mental Health Problem	Step 2 ( $R^2=0.08, \Delta R^2=0.01$ )					
	Gender	-0.84	0.60	-0.18	-1.41	0.17
	White Ethnicity	-0.45	0.59	-0.10	-0.76	0.45
	Multiple Identities	0.32	0.37	0.12	0.86	0.39
	Disclosure Disconnect	-0.17	0.13	-0.18	-1.33	0.19
Learning Disability	Step 2 ( $R^2=0.29, \Delta R^2=0.03$ )					
	Gender	0.44	0.53	0.11	0.84	0.41
	White Ethnicity	-0.15	0.59	-0.04	-0.25	0.80
	Multiple Identities	1.51	0.42	0.52	3.61	0.001**
	Disclosure Disconnect	0.15	0.14	0.14	1.04	0.30
Low SES	Step 2 ( $R^2=0.20, \Delta R^2=0.00$ )					
	Gender	-0.64	0.34	-0.17	-1.87	0.07
	White Ethnicity	-0.67	0.31	-0.19	-2.19	0.03*
	Multiple Identities	0.85	0.27	0.29	3.20	0.002**
	Disclosure Disconnect	0.05	0.06	0.07	0.81	0.42

\*Significant at the 0.05 level (2-tailed); \*\*Significant at the 0.01 level (2-tailed).

Hypothesis 3

It was predicted that less disclosure in the school setting would predict more psychological symptoms. Specifically, the less participants disclose in the school setting,

the more symptoms they would report on the Global Severity Index on the Brief Symptom Inventory (Derogatis, 1993). The relationship between disclosure in the school setting and psychological outcomes were analyzed by Hierarchical Multiple Regression, using disclosure as the predictor, and psychological outcomes as the outcome variables (Table 7). Gender, White ethnicity, type of invisible stigmatized identity, and multiple identities were the control variables. Control variables were entered in the first step, and then disclosure was entered in the second step. Disclosure in the school setting was not a significant predictor of psychological symptoms ( $t = -0.47, p = 0.64$ ).

Table 7.

The Role of Disclosure at School in Psychological Symptoms for all Identity Types

Combined

<i>Predictors</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
<b>Step 1</b>					
Gender	-6.35	2.23	-0.17	-2.85	0.005**
White Ethnicity	-6.56	2.18	-0.18	-3.01	0.003**
Identity Type	1.76	0.95	0.11	1.85	0.07
Multiple Identities	9.28	2.15	0.26	4.33	0.000**
<b>Step 2</b>					
Gender	-6.18	2.26	-0.17	-2.74	0.007**
White Ethnicity	-6.61	2.18	-0.18	-3.02	0.003**
Identity Type	1.68	0.97	0.11	1.74	0.08
Multiple Identities	9.35	2.15	0.26	4.34	0.000**
Disclosure at School	-0.21	0.45	-0.03	-0.47	0.64

Note:  $R^2 = 0.15, \Delta R^2 = 0.001$

\*\* Significant at the 0.01 level (2-tailed).

Regressions were also conducted to examine the relationship between disclosure in the school setting and psychological symptoms for each identity type separately (Table 8). After controlling for gender, White ethnicity, and multiple identities school disclosure was not a significant predictor of psychological symptoms for individuals with learning disabilities ( $t = -0.61, p = 0.54$ ), LGB individuals ( $t = 1.32, p = 0.19$ ), low SES individuals ( $t = 0.38, p = 0.70$ ), or for individuals with mental health problems ( $t = -.54, p = 0.59$ ).

Table 8.

The Role of Disclosure at School in Psychological Symptoms for each Identity Type

<i>Group</i>	<i>Predictors</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
LGB	Step 2 ( $R^2 = 0.18, \Delta R^2 = 0.02$ )					
	Gender	-0.33	0.16	-0.24	-2.09	0.04*
	White Ethnicity	-0.22	0.16	-0.16	-1.34	0.19
	Multiple Identities	0.37	0.14	0.31	2.63	0.01*
	Disclosure at School	0.04	0.03	0.15	1.32	0.19
Mental Health Problem	Step 2 ( $R^2 = 0.07, \Delta R^2 = 0.004$ )					
	Gender	-0.94	0.55	-0.21	-1.70	0.09
	White Ethnicity	-0.42	0.60	-0.09	-0.70	0.49
	Multiple Identities	0.11	0.36	0.04	0.29	0.77
	Disclosure at School	-0.07	0.13	-0.07	-0.54	0.59
Learning Disability	Step 2 ( $R^2 = 0.28, \Delta R^2 = 0.005$ )					
	Gender	0.12	0.48	0.03	0.25	0.80
	White Ethnicity	0.36	0.55	0.09	0.66	0.51
	Multiple Identities	1.46	0.39	0.48	3.73	0.000**
	Disclosure at School	-0.06	0.11	-0.07	-0.61	0.54
Low SES	Step 2 ( $R^2 = 0.20, \Delta R^2 = 0.001$ )					
	Gender	-0.87	0.31	-0.23	-2.77	0.006**
	White Ethnicity	-0.70	0.29	-0.20	-2.39	0.02*
	Multiple Identities	0.78	0.25	0.26	3.18	0.002**
	Disclosure at School	0.02	0.06	0.03	0.38	0.70

\* Significant at the 0.05 level (2-tailed); \*\* Significant at the 0.01 level (2-tailed)

Hypothesis 4

It was predicted that less disclosure outside of the school setting would predict more psychological symptoms. Specifically, the less participants disclose outside of

school, the more symptoms they would report on the Global Severity Index on the Brief Symptom Inventory (Derogatis, 1993). The relationship between disclosure outside of the school setting and psychological outcomes were analyzed by hierarchical multiple regression, using disclosure outside the school setting as the predictor, and psychological outcomes as the outcome variables (Table 9). Gender, White ethnicity, type of invisible stigmatized identity, and multiple identities were the control variables. Control variables were entered in the first step, and then disclosure outside of the school setting was entered in the second step. Disclosure outside of the school setting was not a significant predictor of psychological symptoms ( $t = -0.88, p = 0.38$ ).

Table 9.

The Role of Disclosure Outside of School in Psychological Symptoms for all Identity Types Combined

<i>Predictors</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
<b>Step 1</b>					
Gender	-6.38	2.25	-0.17	-2.84	0.005**
White Ethnicity	-6.54	2.19	-0.18	-2.99	0.003**
Identity Type	1.76	0.96	0.11	1.85	0.07
Multiple Identities	9.29	2.15	0.26	4.32	0.000**
<b>Step 2</b>					
Gender	-6.18	2.26	-0.17	-2.74	0.007**
White ethnicity	-6.60	2.19	-0.18	-3.02	0.003**
Identity Type	1.72	0.96	0.11	1.80	0.07
Multiple Identities	9.27	2.15	0.26	4.31	0.000**
Disclosure Outside of School	-0.29	0.33	-0.05	-0.88	0.38

Note:  $R^2 = 0.16, \Delta R^2 = 0.003$

\*\* Significant at the 0.01 level (2-tailed).

Regressions were also run to analyze the relationship between disclosure outside of school and psychological symptoms for each identity type separately (Table 10). After controlling for gender, White ethnicity, and multiple identities, disclosure outside of school was *not* a significant predictor of psychological symptoms for individuals with learning disabilities ( $t = 0.43, p = 0.67$ ), for LGB individuals ( $t = .43, p = 0.67$ ), low SES individuals ( $t = -0.54, p = 0.59$ ), or for individuals with mental health problems ( $t = -1.08, p = 0.28$ ).



Table 10.

The Role of Disclosure Outside of School in Psychological Symptoms for each Identity

<i>Group</i>	<i>Predictors</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
LGB	Step 2 ( $R^2=0.16, \Delta R^2=0.002$ )					
	Gender	-0.31	0.16	-0.22	-1.87	0.07
	White Ethnicity	-0.22	0.16	-0.16	-1.34	0.19
	Multiple Identities	0.40	0.14	0.33	2.77	0.007**
	Disclosure Outside	0.01	0.02	0.05	0.43	0.67
Mental Health Problem	Step 2 ( $R^2=0.08, \Delta R^2=0.02$ )					
	Gender	-0.94	0.53	-0.21	-1.77	0.08
	White Ethnicity	-0.49	0.60	-0.10	-0.81	0.42
	Multiple Identities	0.09	0.36	0.03	0.25	0.80
	Disclosure Outside	-0.09	0.09	-0.13	-1.08	0.28
Learning Disability	Step 2 ( $R^2=0.22, \Delta R^2=0.003$ )					
	Gender	0.37	0.52	0.09	0.70	0.49
	White Ethnicity	0.61	0.54	0.14	1.12	0.27
	Multiple Identities	1.12	0.36	0.41	3.08	0.003**
	Disclosure Outside	0.04	0.10	0.06	0.43	0.67
Low SES	Step 2 ( $R^2=0.21, \Delta R^2=0.002$ )					
	Gender	-0.79	0.32	-0.21	-2.50	0.01*
	White Ethnicity	-0.67	0.29	-0.19	-2.29	0.02*
	Multiple Identities	0.89	0.26	0.29	3.49	0.001**
	Disclosure Outside	-0.03	0.05	-0.05	-0.54	0.59

\* Significant at the 0.05 level (2-tailed); \*\* Significant at the 0.01 level (2-tailed)

## CHAPTER IV

### DISCUSSION

The aim of this study was to test a model of the antecedents to disclosure of an invisible stigmatized identity and to determine whether disclosure impacted psychological outcomes. Ragins (2008) proposed a model which suggests individual factors, environmental factors, stigma characteristics, and perceived consequences of disclosure all predict whether an individual with an invisible stigmatized identity will disclose his/her identity in a particular setting. Study participants represented four different invisible stigmatized identity types: having a mental illness, being lesbian, gay or bisexual, having a learning disability, or being from a low social class background. The model was tested using structural equation modeling (SEM) for all identity types combined and then for each identity type separately. Additionally, this study examined whether degree of disclosure or disclosure disconnect (high degree of disclosure in one setting and low degree of disclosure in another setting) predicted psychological symptomatology. Lastly, this study examined whether disclosure in the school setting or outside of school predicted psychological symptoms.

This study added to the literature in a variety of ways. First, Ragins' model is theoretical and was never previously tested. This investigation answered that some of the antecedents to disclosure as laid out by Ragins (2008) do accurately predict disclosure. Second, most of the research conducted in this area has been on the disclosure of a gay identity (Moses & Hawkins, 1986; Cohen & Savin-Williams, 1996; Savin-Williams; Rhoads, 1994); thus, by testing this model separately for three other types of invisible stigmas (i.e., mental health problems, learning disabilities, and low SES), the differences

that exist between stigma types were illuminated. The results of this investigation suggest the process of disclosure and the specific predictors of disclosure are unique for each invisible stigmatized identity type. Third, most of the research in this area has examined disclosure within the workplace. By examining students within a college environment, this study determined that Ragins' (2008) model can be applied to other settings and populations.

The findings from this study can also inform colleges and universities how to best support their students who have invisible stigmatized identities. Individuals with stigmatized identities are at risk for discrimination and mental health issues (Allison, 1998; Braddock & McPartland, 1987; Clark, Anderson, Clark, & Williams, 1999; Yinger, 1994). Additionally, college-aged individuals are at a crucial developmental stage where they are in the process of identity formation (Berk, 2000). This study determined the perceived supportiveness of the university environment was an instrumental factor in predicting disclosure and was also negatively correlated with psychological symptoms. Colleges and universities need to create environments where students with invisible stigmatized identities feel welcome and supported.

#### The Model of Antecedents to Disclosure of an Invisible Stigmatized Identity

Ragins' model was altered slightly from its original format. *Course*, a variable, was eliminated from the model because course measure had poor internal reliability and was poorly correlated with the other stigma characteristics. *Course* was measured differently from those variables as participants were asked to answer the questions from their own perspective and not from their perceived perceptions of the student body. There were no established measures for assessing stigma course, indicating more research

needs to be conducted on how to properly measure this concept. Another change made to the model was making *presence of similar others* a separate predictor instead of being grouped with the other environmental factor variables of *supportive relationships* and *institutional support*. *Presence of similar others* was found to be poorly correlated with the support variables.

Overall, the significant predictors to disclosure in the identity combined model were centrality to identity and perceived consequences of disclosure. Participants who rated their stigmatized identity as central to who they are were more likely to disclose that identity to others. Self-verification theory states that individuals desire to be perceived by others as they see themselves (Swann, 1983; Swann, 1987); thus individuals who strongly identify with a particular aspect of their identity will disclose that aspect of their identity to others. This has been supported by previous research which found LGB individuals with stronger identification to their sexual orientation were more likely to disclose at work (Button, 2001; Chrobot-Mason, Button, & DiClementi, 2001; Griffith & Hebl, 2002; Rostosky & Riggle, 2002) and to family and friends (Frable, Wortman, & Joseph, 1998). Additionally, participants who believed that there were more positive consequences to disclosing were also more likely to disclose. The presence of similar others was significantly negatively correlated with disclosure in the model. This finding was unexpected because previous research suggests presence of similar others increases disclosure (Ragins, Singh, & Cornwell, 2007). Specifically, the presence of similarly stigmatized others provide social support and counteract social isolation and rejection (Miller & Major, 2000). However, in this study presence of similar others was not related to supportive relationships. It could be that other studies found a relationship

between presence of similar others and disclosure because similar others were viewed as supportive. The mere presence of others who share your stigmatized identity might not lead to greater disclosure unless those individuals are viewed as supportive.

Ragins' (2008) model was tested separately for all four identity types combined and for each identity type only. The models that demonstrated the best fit to the data were the LGB only model and the mental illness only model. The low SES only model and the learning disability only model were the worst fitting to the data. There is a greater body of research on the stigmatization and disclosure for LGB and mental illness identities compared to learning disabilities and low SES. It is possible that there are other unique contributors to disclosure of a learning disability or low SES background that have yet to be uncovered.

This study showed that students with different invisible identities had different experiences. There were antecedents to disclosure that were stronger predictors for some identity types than others. These findings are not surprising given the nature of social stigmas. Crocker, Major, and Steele (1998) describe stigmas as socially constructed and perceived differently in varying social contexts. Even though each of the four identity types in this study are invisible stigmatized identities, they are experienced and understood differently within this specific university setting. Overall, within the school setting, individuals with mental illness had the least amount of disclosure and individuals with learning disabilities had the highest disclosure. It follows logically that individuals with learning disabilities would have the highest disclosure at school, given the necessity of disclosing that identity within an academic setting.

Additionally, the different identities are experienced uniquely by the individual. For LGB and learning disability, centrality to identity influenced disclosure but this was not a significant predictor for mental illness or low SES. This could be related to LGB and learning disabilities being more permanent and stable identities and requiring a different process of identity development. Although many types of mental illness are chronic, some like depression and anxiety, may remit over time. Individuals from a low SES background are unique from the other identity types in that they share their stigmatized identity with their family of origin. These individuals may have always had this identity and did not have to go through the same identity development process as the other identity types. This could explain why environmental factors, and not individual factors, were more predictive of disclosure for low SES individuals.

#### Mental Illness Model

The strongest predictor to disclosure within the mental illness only model was perceived consequences of disclosure. This finding suggests a belief in positive or negative outcomes to disclosure can influence the decision to disclose for individuals with mental illness. Previous research suggests mental illness is one the most stigmatizing identity types (Corrigan, 2005). Given the high degree of stigmatization of mental illness, it makes sense that individuals would weigh heavily the pros and cons of disclosure before making a decision. It is not surprising that these individuals disclosed their mental illness identity less than students with other identities. Twenty-three percent of participants with a mental health problem reported no disclosure within the school setting, while only two percent reported no disclosure outside of school. It is possible that participants felt it was unnecessary to disclose at school as previous research has

found a common reason for non-disclosure is the person was not the ‘right’ person to disclose to (Bushnell et al., 2005). As the perceived consequences to disclosure was found to be influential in their disclosure decisions, individuals with mental illness need to be reminded of the possible positive consequences of disclosure. Some positive consequences include having a voice (Creed, 2003) and creating social change (Meyerson & Scully, 1995).

### LGB Model

The strongest predictor to disclosure within the LGB only model was centrality to identity. An LGB identity is typically a permanent aspect of an individual and thus may become more central to one’s overall identity than a more fleeting, less stable identity type. LGB identity development has been proposed to occur in a stage-like fashion involving exiting the heterosexual community, establishing a personal LGB identity, and establishing a social LGB identity (D’Augelli, 1989). Within the LGB community individuals may have varying degrees of *outness* in different aspects of their lives. Models of identity formation have included *outness* as a sign of positive identity. Others have suggested that degree of sexual orientation disclosure may be a reflection of the degree to which the social context is LGB-affirming (McCarn & Fassinger, 1996). This study found that the centrality of LGB identity to participants’ self-concept was more predictive of disclosure than the perception that the environment is supportive to LGB individuals.

### Learning Disability Model

The strongest predictors to disclosure within the learning disability only model were centrality to identity and environmental characteristics. Previous research has found

that even individuals with a diagnosed learning disability do not always acknowledge the fact that they have a learning disability (Price, Gerber, & Mulligan, 2003). This study found that individuals the more central learning disability identity was to participants' self-concept, the more likely they were to disclose. Also, supportive relationships and institutional support predicted disclosure for participants with learning disabilities. The biggest barriers to disclosure for LD students include being misunderstood by faculty and fear of requesting accommodations for fear of stigma (Denhart, 2008). Fortunately, the university where this current study was conducted has a program specifically geared to aid students with learning disabilities, which serves to address those barriers.

The majority of LD students in this study reported being diagnosed with ADHD. ADHD is typically understood as a mental health disorder and not as learning disability. However, participants in this study were instructed to self-identify with the particular identity types. All participants in this study who reported being diagnosed with ADHD identified with having a learning disability and did not identify with having a mental health problem. Previous research on individuals with learning disabilities did include participants who reported having difficulties with organization, note-taking, and information processing (Greenbaum, Graham, & Scales, 1996), which can be related to an ADHD diagnosis. However, there may be differences between individuals with ADHD and other learning disabilities. The prevalence of ADHD is growing rapidly. Approximately 9.5% of children 4-17 years of age have ever been diagnosed with ADHD as of 2007 and the rates of diagnosis increased an average of 5.5% per year from 2003 to 2007 (CDC, 2010). Due to this increased prevalence it is possible that ADHD may not be viewed as stigmatizing a condition compared to other learning disabilities. The large



portion of participants with ADHD in this study could help explain why the LD model was a poor fit to the data. Future research should examine differences between the stigmatizing experiences of individuals with ADHD versus other types of learning disabilities in educational settings.

### Low SES Model

The strongest predictor to disclosure within the low SES only model was environmental factors, including supportive relationships and institutional support. College students from a low SES background often report feeling isolated and marginalized on a college campus (Wentworth & Peterson, 2001). The participants in this study who felt that they were supported within the college environment were more likely to disclose their class status to others.

Individual factors, such as centrality to identity, were not found to be significant predictors to disclosure for the low SES model. This could be due to college-aged individuals from a low SES background are already on a path of upward class mobility as a result of being enrolled in post-secondary education. Their changing class status could explain why centrality to identity was not a significant predictor to disclosure for low SES individuals.

### Multiple Identities

This study did not seek to address questions related to participants' report of multiple identities. However, it was found that individuals with multiple identities had significantly higher levels of psychological symptoms compared to individuals with one identity. Approximately a quarter of the study sample identified as being more than one

identity type (21.3% reported having two identity types and 2.0% reported having three identity types).

Having multiple identities has been understood through the concept of intersectionality. Intersectionality represents the idea that the crossing of multiple forms of oppression produces distinct sets of perspectives and consequences among individuals (hooks, 1989). A central tenet of intersectionality suggests that there are unique, non-additive effects of identifying with more than one social group (Stewart & McDermott, 2004). When applied to this study, the concept of intersectionality proposes an individual who identified as both LGB and low SES has different experiences and perspectives than individuals who identify as either low SES or LGB. Individuals who identify with multiple groups will experience a unique combination of stressors related to the concurrent development of two stigmatized identities (Crawford, Allison, Zamboni, & Soto, 2002). A study of young adults from diverse ethnic, religious, and family backgrounds found that individuals with many social identities reported more anxiety when experiencing stress than individuals with few social identities (Yip, Kiang, & Fuligni, 2008). Individuals with multiple stigmatized identities may experience more stress than individuals with one identity due to increased stigmatization and having to juggle multiple identities, which may lead to poorer psychological health.

#### Disclosure Disconnect

The concept of disclosure disconnect suggests that high disclosure in one setting and low disclosure in another setting will lead to increased psychological symptoms (Ragins, 2008) due to the stress that results from presenting oneself incongruently across settings. In this study, participants rated disclosure of their identity to individuals within

the school setting and outside the school setting. A relationship between disclosure disconnect across those two settings and psychological symptoms was not supported in this study. In this study disclosure disconnect was defined as any difference in disclosure across settings. The majority of the participants with a disclosure disconnect had a relatively small discrepancy between their disclosure scores across settings. It is possible that there was insufficient variability of disclosure disconnect in this study to determine a relationship with psychological symptoms.

Additionally, it was found that participants reported significantly greater disclosure outside of the school setting than within the school setting. This study was focused on disclosure within the university setting, and thus participants only answered questions related to study variables pertaining to that setting. It is impossible to conclude from this study if there are key differences between the university and outside settings that make it easier to disclose outside of the university environment. However, this could be an important topic for future research.

### Disclosure and Psychological Symptoms

Previous research has been inconclusive on whether disclosure of invisible stigmatized identity increases or decreases psychological symptoms. It has been suggested that concealing an invisible stigmatized identity creates a great deal of stress and disclosing should serve to alleviate that stress (Rosario et al., 2001). Additionally, disclosure has been found to lead to improved interpersonal relationships (Beals & Peplau, 2001). However, disclosure can also lead to increased discrimination, harassment, and violence (Clair, Beatty, & MacLean, 2005), which could severely impact one's psychological functioning. This study examined the relationship between

disclosure (either within the school setting or outside the school setting) and psychological symptoms, but the relationship was not statistically significant.

Overall, 97 participants (32.8%) reported clinically significant levels of psychological symptoms; whereas only 76 participants in the study identified themselves as having a mental health problem. College students, specifically, are at risk for mental health problems given the academic, social, and developmental stressors of college life (Mowbray et al., 2006). Given that there are many other factors impacting the mental health of college students, the role of disclosure on psychological symptoms might have been too small to be detectable in this study.

It was found that psychological symptoms were significantly related to antecedents of disclosure in Ragins' model (2008). Psychological symptoms were positively correlated with controllability, peril/threat, disruptiveness, and centrality to identity. Controllability, peril/threat, and disruptiveness all relate to negative views the participants believed other students held about their specific stigmatized identity; thus it is not surprising that these variables were positively correlated with psychological symptoms. Centrality to identity refers to how strongly an individual identifies with their stigmatized identity. Previous research has found that centrality to identity predicts disclosure (Button, 2001; Chrobot-Mason, Button, & DiClementi, 2001; Griffith & Hebl, 2002; Rostosky & Riggle, 2002; Frable, Wortman, & Joseph, 1998), but has not addressed the relationship between centrality to identity and psychological symptoms. It could be that individuals with a higher level of centrality to identity are more aware of the negative views others hold about their identity or more susceptible to discrimination, which may lead to increased psychological symptoms.

Psychological symptoms were negatively correlated with stigma course (the view that their stigmatized identity is changing over time), supportive relationships, and institutional support. An individual who views their identity as changing over time may report less psychological symptoms because they see their stigmatized identity as fleeting and not a permanent condition. A large body of research demonstrates the relationship between environmental support and increased disclosure (Franke & Leary, 1991; Jordan & Deluty, 1998; Ragins et al., 2007; Rollins et al., 2002; Schneider, 1987), which has been theorized to be the result of increased trust and self-esteem (Luhtanen, 2003). Increased self-esteem in individuals who feel supported by their environment may lead to fewer psychological symptoms. Additionally, individuals who perceive their environment to be supportive are probably less likely to experience discrimination and harassments which might contribute to psychological problems. Overall, although these are only correlations, these findings suggest that a student's perception of support on campus and their perception that others do not view their stigmatized identity in a negative light may decrease psychological symptoms.

College campuses should aim to be a supportive environment for individuals with invisible stigmatized identities. This could be done by creating awareness and visibility through invited speakers, bulletin boards, or poster campaigns. Colleges could also establish programming specific to stigmatized identities, including support groups, connection to community partnerships, adequate resources, and training of faculty and staff.

## Overall Conclusions

The model of the antecedents to disclosure of an invisible stigmatized identity was supported by this study. Many of the predictors to disclosure found in previous studies were also found to be related to disclosure decisions in this study as well. Key differences were found between identity types, which is not surprising given the nature of social stigmatized identities. There was a large portion of variance in total disclosure not accounted for by the study variables indicating there might be other key variables of interest that play a role in disclosure that have yet to be identified. There may be additional individual level factors which could be related to disclosure. A study of LGB students coming out on a college campus found that developmental readiness influenced disclosure (Evans & Broido, 1999). Developmental readiness refers to a stage process of identity development and acceptance. College students could be in the early stages of formulating their identities and thus not be ready for disclosure.

This study found no relationship between disclosure of an invisible stigmatized identity and psychological symptoms. Previous research has found both positive and negative consequences to disclosure, which suggests disclosure decisions can be complicated and involve various factors. The disclosure of an invisible stigmatized identity might not be the appropriate choice for every individual in every setting.

## Limitations

This study had some limitations. Although the sample size was sufficient to run the model for all the identity types combined, the sample sizes were much smaller than what is typically acceptable for SEM when the model was conducted separately for each identity type. The small sample sizes could have influenced model fit for the separate

identity type models. Also, this study was cross-sectional and did not investigate reverse relationships or alternate pathways within the model.

The measurement of some variables, particularly course and controllability, were not reliable. The questions designed to measure those concepts were created by the researcher for this study, as no previous measures existed. More work needs to be conducted to better understand those concepts and to create valid measures.

This study was unsuccessful in determining whether disclosure disconnects or overall disclosure lead to psychological symptoms. It is possible that there was not enough variability in disclosure disconnect to detect an effect. Also, disclosure was measured by having participants simply report the numbers of individuals to whom they have disclosed. It might be useful to determine in what manner individuals disclose and to whom exactly they disclose. These details about disclosure may be helpful in determining what aspect of the disclosure process impact mental health.

#### Recommendations for Future Research

Based on the findings of this study there are several recommendations for future research. Given that differences were found across the four types of identities, more research should be conducted on disclosure within each identity type separately to best create unique models of disclosure. Additionally, there needs to be more research on individuals with multiple stigmatized identities to better understand their unique experiences and perspectives. Studies of disclosure typically take place in one setting. However, this study found participants were disclosing their identities more outside of school than within school. Future research should compare factors across settings that

influence individuals' disclosure decisions. Specific settings might include work, home, and social environments.

Given that research has been inconclusive about whether disclosure of invisible stigmatized identity leads to positive outcomes, qualitative research should be undertaken to explore the specific consequences of disclosure for each individual. A brief symptom inventory may have been an inadequate measure to assess if disclosure was producing positive or negative outcomes, especially in a sample that already had high levels of psychological symptomatology. Lastly, because disclosure of an invisible stigmatized identity is a complex process and not a single event, more in-depth qualitative and longitudinal research should be done to elucidate additional factors that might influence disclosure of various types of invisible stigmatized identities across multiple settings.



## CHAPTER V

### SUMMARY

The purpose of this study was to test a model proposed by Ragins (2008) of the antecedents to disclosure of an invisible stigmatized identity. The antecedents to disclosure included characteristics of the specific stigma, individual level factors, environmental factors, and perceived consequences of disclosure. In addition, to testing this model, this study also sought to answer if disclosure disconnects (uneven disclosure across settings) and degree of disclosure increased or decreased report of psychological symptoms. Four identity types were selected: mental health problems, learning disability, low social class background, and lesbian, gay, or bisexual (LGB). A total of 254 undergraduate college students completed an on-line survey including questions about the disclosure of their identities and the various proposed predictors to disclosure.

The model was tested using structural equation modeling. The model was run for all identity types combined and then separately for each identity type. The best fitting models included the identity combined model, the mental illness only model, and the LGB only model. The low SES only and the learning disability only model were determined to be the worst fitting to the data. It emerged that some antecedents were better predictors to disclosure for different identity types. The best predictor to disclosure for the mental illness model was perceived consequences to disclosure. The best predictor for the LGB model was centrality to identity. Centrality to identity, as well as environmental factors, were the strongest predictors for the learning disability model. For the low SES model, supportive relationships and institutional support were the strongest predictors to disclosure.

This study was unable to find a relationship between disclosure disconnect and psychological symptoms or overall disclosure and psychological symptoms. It was determined that individuals with mental health problems had the lowest rates of disclosure overall compared to the other three identity types. It was also determined that participants had higher rates of disclosure outside the school setting compared to disclosure at school. A majority of the participants reported having multiple identity types. It was found that participants who reported having two identities were more likely to report psychological symptoms than individuals with only one identity.

This study contributed to the literature in several ways. It was the first to test this model and demonstrate it is an accurate description of the predictors to disclosure for invisible stigmatized identities. It also uncovered important differences between types of invisible stigmatized identities. This study provided important information college and universities about the needs of college students with invisible stigmatized identities. Future research on disclosure should be conducted across settings and include multiple identity types. Qualitative research might be helpful in exploring in greater detail the disclosure process to determine additional antecedents to disclosure that were not included in the model.

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## Appendix A

### Demographics Questionnaire

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1. What is your age? \_\_\_\_\_
2. What is your gender?
  - (1) Female
  - (2) Male
  - (3) Transgender
3. What is your race/ethnicity? (Select all that apply)
  - (1) African-American/Black
  - (2) Asian/Asian-American/Pacific Islander
  - (3) Caucasian/White
  - (4) Native American
  - (5) Latino/a
  - (6) Other (please specify) \_\_\_\_\_
4. What year in college are you?
  - (1) Freshman
  - (2) Sophomore
  - (3) Junior
  - (4) Senior
5. What is your current GPA? \_\_\_\_\_
6. What is your major? \_\_\_\_\_
7. Do you live on- or off-campus?
  - (1) On
  - (2) Off
8. What is the highest level of education completed by your father?
  - (1) Less than 7<sup>th</sup> grade
  - (2) Junior high/Middle School
  - (3) Partial High school
  - (4) High school graduate
  - (5) Partial college
  - (6) College degree
  - (7) Graduate degree
9. What is the highest level of education completed by your mother?
  - (1) Less than 7<sup>th</sup> grade
  - (2) Junior high/Middle School
  - (3) Partial High school
  - (4) High school graduate
  - (5) Partial college
  - (6) College degree



(7) Graduate degree

10. What is your father's occupation? \_\_\_\_\_
11. What is your mother's occupation? \_\_\_\_\_
12. What is the annual household income of your family of origin?
- (1) Less than \$20,000
  - (2) \$20,000-\$34,999
  - (3) \$35,000-\$49,999
  - (4) \$50,000- \$74,999
  - (5) \$75,000-\$99,999
  - (6) \$100,000-\$149,999
  - (7) \$150,000 or more
13. How many household members were there in your family of origin? \_\_\_\_\_
14. Do you identify as lesbian, gay, or bisexual?
- (1) Yes
  - (2) No
15. Do you identify as having a learning disability?
- (1) Yes
  - (2) No
- Have you received a diagnosis?
- (1) Yes. What is the diagnosis? \_\_\_\_\_
  - (2) No
16. Do you identify as being from a lower social class than the majority of other students at this university?
- (1) Yes
  - (2) No
17. Do you identify as having or ever had a mental health problem?
- (1) Yes
  - (2) No
- Have you ever received a diagnosis?
- (1) Yes. What is that diagnosis? \_\_\_\_\_
  - (2) No
- Have you ever received any form of psychological treatment?
- (1) Yes
  - (2) No

Appendix B

*Lesbian, Gay, Bisexual (LGB) Survey*

I. Do you identify as lesbian, gay, or bisexual?

(1) Yes

(2) No

If you answered yes, please continue on with the rest of the survey.

Please answer the following questions about LGB according to the following scale:

- |     | 1                        | 2               | 3                | 4            | 5                     |
|-----|--------------------------|-----------------|------------------|--------------|-----------------------|
|     | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Undecided</b> | <b>Agree</b> | <b>Strongly Agree</b> |
| 1.  |                          |                 |                  |              |                       |
|     | 1                        | 2               | 3                | 4            | 5                     |
| 2.  |                          |                 |                  |              |                       |
|     | 1                        | 2               | 3                | 4            | 5                     |
| 3.  |                          |                 |                  |              |                       |
|     | 1                        | 2               | 3                | 4            | 5                     |
| 4.  |                          |                 |                  |              |                       |
|     | 1                        | 2               | 3                | 4            | 5                     |
| 5.  |                          |                 |                  |              |                       |
|     | 1                        | 2               | 3                | 4            | 5                     |
| 6.  |                          |                 |                  |              |                       |
|     | 1                        | 2               | 3                | 4            | 5                     |
| 7.  |                          |                 |                  |              |                       |
|     | 1                        | 2               | 3                | 4            | 5                     |
| 8.  |                          |                 |                  |              |                       |
|     | 1                        | 2               | 3                | 4            | 5                     |
| 9.  |                          |                 |                  |              |                       |
|     | 1                        | 2               | 3                | 4            | 5                     |
| 10. |                          |                 |                  |              |                       |
|     | 1                        | 2               | 3                | 4            | 5                     |
| 11. |                          |                 |                  |              |                       |
|     | 1                        | 2               | 3                | 4            | 5                     |
| 12. |                          |                 |                  |              |                       |

- 1                      2                      3                      4                      5
13. In general, people at this school discuss LGB issues openly.
- 1                      2                      3                      4                      5
14. In general, people at this school avoid individuals who are LGB because they feel uneasy around them.
- 1                      2                      3                      4                      5
15. In general, people at this school show no signs that they are uncomfortable interacting with individuals who are LGB.
- 1                      2                      3                      4                      5
16. My LGB identity is unchanging over time.
- 1                      2                      3                      4                      5
17. My acceptance of my LGB identity has changed over time.
- 1                      2                      3                      4                      5
18. My LGB identity will be the same 10 years from now.
- 1                      2                      3                      4                      5
19. I expect my acceptance of my LGB identity to increase in the future.
- 1                      2                      3                      4                      5
20. My LGB identity is a constant in my life.
- 1                      2                      3                      4                      5
21. Overall, my LGB identity has very little to do with how I feel about myself.
- 1                      2                      3                      4                      5
22. My LGB identity is an important reflection of who I am.
- 1                      2                      3                      4                      5
23. My LGB identity is unimportant to my sense of what kind of person I am.
- 1                      2                      3                      4                      5
24. In general, my LGB identity is an important part of my self-image.
- 1                      2                      3                      4                      5
25. If I were asked to describe myself I would include my LGB identity as part of that description.
- 1                      2                      3                      4                      5

**Please answer the following questions about other people at this school that are LGB.**

26. At this school how many other students are LGB?
- (1) None
  - (2) Few
  - (3) Equal balance
  - (4) Most
  - (5) Don't know
27. At this school how many faculty (instructors) are LGB?
- (1) None

- (2) Few
  - (3) Equal balance
  - (4) Most
  - (5) Don't know
28. At this school how many staff members (non-instructors) are LGB?
- (1) None
  - (2) Few
  - (3) Equal balance
  - (4) Most
  - (5) Don't know
29. At this school how many of your friends are LGB?
- (1) None
  - (2) Few
  - (3) Equal balance
  - (4) Most
  - (5) Don't know

Please answer the following questions about your friends at this school who are NOT LGB only.

- |  | 1                        | 2               | 3                | 4            | 5                     |
|--|--------------------------|-----------------|------------------|--------------|-----------------------|
|  | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Undecided</b> | <b>Agree</b> | <b>Strongly Agree</b> |
| 30. My friends at school give me the moral support I need.   | 1                        | 2               | 3                | 4            | 5                     |
| 31. Most other people are closer to their friends at school than I am.   | 1                        | 2               | 3                | 4            | 5                     |
| 32. My friends at school enjoy hearing what I think.   | 1                        | 2               | 3                | 4            | 5                     |
| 33. Certain friends at school come to me when they have problems or need advice.                                 | 1                        | 2               | 3                | 4            | 5                     |
| 34. I rely on my friends at school for emotional support.  | 1                        | 2               | 3                | 4            | 5                     |
| 35. If I felt that one or more of my friends at school were upset with me, I'd just keep it to myself.           | 1                        | 2               | 3                | 4            | 5                     |
| 36. I feel that I'm on the fringe in my circle of friends at school.   | 1                        | 2               | 3                | 4            | 5                     |
| 37. There is a friend at school I could go to if I were just feeling down, without feeling funny about it later. | 1                        | 2               | 3                | 4            | 5                     |
| 38. My friends at school and I are very open about what we think about things.                                   | 1                        | 2               | 3                | 4            | 5                     |
| 39. My friends at school are sensitive to my personal needs.   | 1                        | 2               | 3                | 4            | 5                     |

- |     |   |   |   |   |   |
|-----|---|---|---|---|---|
|     | 1   | 2 | 3 | 4 | 5 |
| 40. | My friends at school come to me for emotional support.  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 41. | My friends at school are good at helping me solve problems.   |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 42. | I have a deep sharing relationship with a number of friends at school.  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 43. | My friends at school get good ideas about how to do things or make things from me.                                    |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 44. | When I confide in friends at school, it makes me feel uncomfortable.  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 45. | My friends at school seek me out for companionship.   |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 46. | I think that my friends at school feel that I'm good at helping them solve problems.                                  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 47. | I don't have a relationship with a friend at school that is as intimate as other people's relationships with friends. |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 48. | I've recently gotten a good idea about how to do something from a friend at school.                                   |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 49. | I wish my friends at school were much different.  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |

Please answer the following questions about your experience at this school according to the following scale:

- |                          |  |                  |              |                       |   |
|--------------------------|--|------------------|--------------|-----------------------|---|
|                          | 1  | 2                | 3            | 4                     | 5 |
| <b>Strongly Disagree</b> | <b>Disagree</b>  | <b>Undecided</b> | <b>Agree</b> | <b>Strongly Agree</b> |   |
| 50.                      | Class sizes are so large I feel like a number.                           |                  |              |                       |   |
|                          | 1  | 2                | 3            | 4                     | 5 |
| 51.                      | The library staff is willing to help me find materials/books.            |                  |              |                       |   |
|                          | 1  | 2                | 3            | 4                     | 5 |
| 52.                      | University staff have been warm and friendly.                            |                  |              |                       |   |
|                          | 1  | 2                | 3            | 4                     | 5 |
| 53.                      | I do not feel valued as a student on campus.                             |                  |              |                       |   |
|                          | 1  | 2                | 3            | 4                     | 5 |
| 54.                      | Faculty have not been available to discuss my academic concerns.         |                  |              |                       |   |
|                          | 1  | 2                | 3            | 4                     | 5 |
| 55.                      | Financial aid staff has been willing to help me with financial concerns. |                  |              |                       |   |
|                          | 1  | 2                | 3            | 4                     | 5 |

56. The university encourages/sponsors groups for LGB students on campus.
- 1                    2                    3                    4                    5
57. There are tutoring services available for me on campus.
- 1                    2                    3                    4                    5
58. The university seems to value students who are LGB.
- 1                    2                    3                    4                    5
59. Faculty have been available for help outside of class.
- 1                    2                    3                    4                    5
60. The university feels like a cold, uncaring place to me.
- 1                    2                    3                    4                    5
61. Faculty have been available to help me make course choices.
- 1                    2                    3                    4                    5
62. I feel as if no one cares about me personally on this campus.
- 1                    2                    3                    4                    5
63. I feel comfortable in the university environment.
- 1                    2                    3                    4                    5

Please answer the following questions about to whom you have disclosed your LGB identity.

64. At this school how many other students have you disclosed your LGB identity to?
- 1) None
  - 2) A couple of them
  - 3) Several of them
  - 4) Most of them
  - 5) All of them I've been in contact with
65. At this school how many faculty members (instructors) have you disclosed your LGB identity to?
- 1) None
  - 2) A couple of them
  - 3) Several of them
  - 4) Most of them
  - 5) All of them I've been in contact with
66. At this school how many staff members (non-instructors) have you disclosed your LGB identity to?
- 1) None
  - 2) A couple of them

- 3) Several of them
- 4) Most of them
- 5) All of them I've been in contact with

67. Outside of school how many family members have you disclosed your LGB identity to?

- 1) None
- 2) A couple of them
- 3) Several of them
- 4) Most of them
- 5) All of them I've been in contact with

68. Outside of school how many friends have you disclosed your LGB identity to?

- 1) None
- 2) A couple of them
- 3) Several of them
- 4) Most of them
- 5) All of them I've been in contact with

69. Outside of school how many employers or co-workers have you disclosed your LGB identity to?

- 1) None
- 2) A couple of them
- 3) Several of them
- 4) Most of them
- 5) All of them I've been in contact with



Please answer the following questions according to the following scale:

1	2	3	4	5
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>

*If I disclosed my LGB identity to everyone at school...*

70. I would feel a sense of relief.

1	2	3	4	5
71. My relationships with others would be closer.				

1	2	3	4	5
72. I would be excluded from peers.				

1	2	3	4	5
73.	Other people would avoid me.			
1	2	3	4	5
74.	My self-esteem would increase.			
1	2	3	4	5
75.	I would not have the same educational opportunities.			
1	2	3	4	5
76.	It would increase awareness of those who are LGB.			
1	2	3	4	5
77.	Other people would feel uncomfortable around me.			
1	2	3	4	5
78.	Instructors would expect less from me.			
1	2	3	4	5
79.	I could be a mentor for other students who are LGB.			
1	2	3	4	5
80.	I would be harassed.			
1	2	3	4	5
81.	I would feel closer to other students who are LGB.			
1	2	3	4	5
82.	I would lose the opportunity to be mentored.			
1	2	3	4	5
83.	I would feel like I had a voice.			
1	2	3	4	5

**The following is a list of problems people sometimes have. Please rate how much each problem has distressed or bothered you during the past seven days, including today.**

	1	2	3	4	5
	Not at all	A little bit	Moderately	Quite a bit	Extremely
84.	Nervousness or shakiness inside.				
1	2	3	4	5	
85.	Faintness or dizziness.				
1	2	3	4	5	
86.	The idea that someone else can control your thoughts.				
1	2	3	4	5	
87.	Feeling others are to blame for most of your troubles.				
1	2	3	4	5	
88.	Trouble remembering things.				
1	2	3	4	5	



89. Feeling easily annoyed or irritated.	1	2	3	4	5
90. Pains in the heart or chest.	1	2	3	4	5
91. Feeling afraid in open spaces.	1	2	3	4	5
92. Thoughts of ending your life.	1	2	3	4	5
93. Feeling that most people cannot be trusted.	1	2	3	4	5
94. Poor appetite.	1	2	3	4	5
95. Suddenly scared for no reason.	1	2	3	4	5
96. Temper outburst that you could not control.	1	2	3	4	5
97. Feeling lonely even when you are with people.	1	2	3	4	5
98. Feeling blocked in getting things done.	1	2	3	4	5
99. Feeling lonely.	1	2	3	4	5
100. Feeling blue.	1	2	3	4	5
101. Feeling no interest in things.	1	2	3	4	5
102. Feeling fearful.	1	2	3	4	5
103. Your feelings being easily hurt.	1	2	3	4	5
104. Feeling that people are unfriendly or dislike you.	1	2	3	4	5
105. Feeling inferior to others.	1	2	3	4	5
106. Nausea or upset stomach.	1	2	3	4	5
107. Feeling that you are watched or talked about by others.	1	2	3	4	5

108. Trouble falling asleep.
- 1                    2                    3                    4                    5
109. Having to check and double check what you do.
- 1                    2                    3                    4                    5
110. Difficulty making decisions.
- 1                    2                    3                    4                    5
111. Feeling afraid to travel on buses, subways, or trains.
- 1                    2                    3                    4                    5
112. Trouble getting your breath.
- 1                    2                    3                    4                    5
113. Hot or cold spells.
- 1                    2                    3                    4                    5
114. Having to avoid certain things, places, or activities because they frighten you.
- 1                    2                    3                    4                    5
115. Your mind going blank.
- 1                    2                    3                    4                    5
116. Numbness or tingling in parts of your body.
- 1                    2                    3                    4                    5
117. The idea that you should be punished for your sins.
- 1                    2                    3                    4                    5
118. Feeling hopeless about the future.
- 1                    2                    3                    4                    5
119. Trouble concentrating.
- 1                    2                    3                    4                    5
120. Feeling weak in parts of your body.
- 1                    2                    3                    4                    5
121. Feeling tense or keyed up.
- 1                    2                    3                    4                    5
122. Thought of death or dying.
- 1                    2                    3                    4                    5
123. Having urges to beat, injure or harm someone.
- 1                    2                    3                    4                    5
124. Having urges to break or smash things.
- 1                    2                    3                    4                    5
125. Feeling very self-conscious with others.
- 1                    2                    3                    4                    5
126. Feeling uneasy in crowds.

- |  |   |   |   |   |
|--|---|---|---|---|
| 1  | 2 | 3 | 4 | 5 |
| 127. Never feeling close to another person.                          |   |   |   |   |
| 1  | 2 | 3 | 4 | 5 |
| 128. Spells of terror or panic.                                      |   |   |   |   |
| 1  | 2 | 3 | 4 | 5 |
| 129. Getting into frequent arguments.                                |   |   |   |   |
| 1  | 2 | 3 | 4 | 5 |
| 130. Feeling nervous when you are left alone.                        |   |   |   |   |
| 1  | 2 | 3 | 4 | 5 |
| 131. Others not giving you proper credit for your achievements.      |   |   |   |   |
| 1  | 2 | 3 | 4 | 5 |
| 132. Feeling so restless you couldn't sit still.                     |   |   |   |   |
| 1  | 2 | 3 | 4 | 5 |
| 133. Feeling of worthlessness.                                       |   |   |   |   |
| 1  | 2 | 3 | 4 | 5 |
| 134. Feeling that people will take advantage of you if you let them. |   |   |   |   |
| 1  | 2 | 3 | 4 | 5 |
| 135. Feeling of guilt.   |   |   |   |   |
| 1  | 2 | 3 | 4 | 5 |
| 136. The idea that something is wrong with your mind.                |   |   |   |   |
| 1  | 2 | 3 | 4 | 5 |

---

***Thank you for your time!***

## *Mental Health Problems Survey*

I. Do you identify as having or ever had a mental health problem?

- (1) Yes
- (2) No

If yes, please continue with the rest of the survey.

II. Have you ever received a diagnosis?

(1) Yes. What is that diagnosis? \_\_\_\_\_

(2) No

III. Have you ever received any form of psychological treatment?

- (1) Yes
- (2) No

Please answer the following questions about mental health problems according to the following scale:

- |   | 1                        | 2               | 3                | 4            | 5                     |
|---|--------------------------|-----------------|------------------|--------------|-----------------------|
|   | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Undecided</b> | <b>Agree</b> | <b>Strongly Agree</b> |
| 1. In general, people at this school believe those with mental health problems are responsible for their condition.   | 1                        | 2               | 3                | 4            | 5                     |
| 2. In general, people at this school believe those with mental health problems are able to change.  | 1                        | 2               | 3                | 4            | 5                     |
| 3. In general, people at this school believe those with mental health problems can overcome obstacles they may face.  | 1                        | 2               | 3                | 4            | 5                     |
| 4. In general, people at this school believe those with mental health problems deserve the challenges they may encounter as part of having a mental health problem. | 1                        | 2               | 3                | 4            | 5                     |
| 5. In general, people at this school believe that an individual has no control over whether they have a mental health problem.                                      | 1                        | 2               | 3                | 4            | 5                     |
| 6. In general, people at this school fear individuals with mental health problems.  | 1                        | 2               | 3                | 4            | 5                     |
| 7. In general, people at this school feel threatened by individuals with mental health problems.  | 1                        | 2               | 3                | 4            | 5                     |
| 8. In general, people at this school feel individuals with mental health problems may be dangerous.   | 1                        | 2               | 3                | 4            | 5                     |
| 9. In general, people at this school avoid individuals with mental health problems because they feel unsafe.  | 1                        | 2               | 3                | 4            | 5                     |

- |     |  |   |   |   |   |
|-----|--|---|---|---|---|
|     | 1  | 2 | 3 | 4 | 5 |
| 10. | In general, people at this school show no signs that they feel unsafe around individuals with mental health problems.                      |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 11. | In general, people at this school are uncomfortable around individuals once they find out they have a mental health problem.               |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 12. | In general, people at this school avoid talking about mental health problems.  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 13. | In general, people at this school discuss mental health problems openly.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 14. | In general, people at this school avoid individuals with mental health problems because they feel uneasy around them.                      |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 15. | In general, people at this school show no signs that they are uncomfortable interacting with individuals who have a mental health problem. |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 16. | My mental health problem is unchanging over time.  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 17. | My acceptance of my mental health problem has changed over time.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 18. | My mental health problem will be the same 10 years from now.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 19. | I expect my acceptance of my mental health problem to increase in the future.  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 20. | My mental health problem is a constant in my life.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 21. | Overall, my mental health problem has very little to do with how I feel about myself.  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 22. | My mental health problem is an important reflection of who I am.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 23. | My mental health problem is unimportant to my sense of what kind of person I am.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 24. | In general, my mental health problem is an important part of my self-image.  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 25. | If I were asked to describe myself I would include my mental health problem as part of that description.                                   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |

Please answer the following questions about other people at this school that have mental health problems.

26. At this school how many other students have mental health problems?
- (1) None
  - (2) Few
  - (3) Equal balance
  - (4) Most
  - (5) Don't know
27. At this school how many faculty (instructors) have mental health problems?
- (1) None
  - (2) Few
  - (3) Equal balance
  - (4) Most
  - (5) Don't know
28. At this school how many staff members (non-instructors) have mental health problems?
- (1) None
  - (2) Few
  - (3) Equal balance
  - (4) Most
  - (5) Don't know
29. At this school how many of your friends have mental health problems?
- (1) None
  - (2) Few
  - (3) Equal balance
  - (4) Most
  - (5) Don't know

Please answer the following questions about your friends at this school who do NOT have mental health problems.

- |  | 1                        | 2               | 3                | 4            | 5                     |
|--|--------------------------|-----------------|------------------|--------------|-----------------------|
|  | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Undecided</b> | <b>Agree</b> | <b>Strongly Agree</b> |
| 30. My friends at school give me the moral support I need.   | 1                        | 2               | 3                | 4            | 5                     |
| 31. Most other people are closer to their friends at school than I am.                                 | 1                        | 2               | 3                | 4            | 5                     |
| 32. My friends at school enjoy hearing what I think.   | 1                        | 2               | 3                | 4            | 5                     |
| 33. Certain friends at school come to me when they have problems or need advice.                       | 1                        | 2               | 3                | 4            | 5                     |
| 34. I rely on my friends at school for emotional support.  | 1                        | 2               | 3                | 4            | 5                     |
| 35. If I felt that one or more of my friends at school were upset with me, I'd just keep it to myself. | 1                        | 2               | 3                | 4            | 5                     |
| 36. I feel that I'm on the fringe in my circle of friends at school.                                   | 1                        | 2               | 3                | 4            | 5                     |

- 1                      2                      3                      4                      5
37. There is a friend at school I could go to if I were just feeling down, without feeling funny about it later.
- 1                      2                      3                      4                      5
38. My friends at school and I are very open about what we think about things.
- 1                      2                      3                      4                      5
39. My friends at school are sensitive to my personal needs.
- 1                      2                      3                      4                      5
40. My friends at school come to me for emotional support.
- 1                      2                      3                      4                      5
41. My friends at school are good at helping me solve problems.
- 1                      2                      3                      4                      5
42. I have a deep sharing relationship with a number of friends at school.
- 1                      2                      3                      4                      5
43. My friends at school get good ideas about how to do things or make things from me.
- 1                      2                      3                      4                      5
44. When I confide in friends at school, it makes me feel uncomfortable.
- 1                      2                      3                      4                      5
45. My friends at school seek me out for companionship.
- 1                      2                      3                      4                      5
46. I think that my friends at school feel that I'm good at helping them solve problems.
- 1                      2                      3                      4                      5
47. I don't have a relationship with a friend at school that is as intimate as other people's relationships with friends.
- 1                      2                      3                      4                      5
48. I've recently gotten a good idea about how to do something from a friend at school.
- 1                      2                      3                      4                      5
49. I wish my friends at school were much different.
- 1                      2                      3                      4                      5

Please answer the following questions about your experience at this school according to the following scale:

- |                          |                 |                  |              |                       |
|--------------------------|-----------------|------------------|--------------|-----------------------|
| 1                        | 2               | 3                | 4            | 5                     |
| <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Undecided</b> | <b>Agree</b> | <b>Strongly Agree</b> |
50. Class sizes are so large I feel like a number.
- 1                      2                      3                      4                      5
51. The library staff is willing to help me find materials/books.
- 1                      2                      3                      4                      5
52. University staff have been warm and friendly.
- 1                      2                      3                      4                      5

53. I do not feel valued as a student on campus.
- 1                      2                      3                      4                      5
54. Faculty have not been available to discuss my academic concerns.
- 1                      2                      3                      4                      5
55. Financial aid staff has been willing to help me with financial concerns.
- 1                      2                      3                      4                      5
56. The university encourages/sponsors groups for mental health problems on campus.
- 1                      2                      3                      4                      5
57. There are tutoring services available for me on campus.
- 1                      2                      3                      4                      5
58. The university seems to value students who have mental health problems.
- 1                      2                      3                      4                      5
59. Faculty have been available for help outside of class.
- 1                      2                      3                      4                      5
60. The university feels like a cold, uncaring place to me.
- 1                      2                      3                      4                      5
61. Faculty have been available to help me make course choices.
- 1                      2                      3                      4                      5
62. I feel as if no one cares about me personally on this campus.
- 1                      2                      3                      4                      5
63. I feel comfortable in the university environment.
- 1                      2                      3                      4                      5

Please answer the following questions about to whom you have disclosed your mental health problem.

64. At this school how many other students have you disclosed your mental health problem to?
1. None
  2. A couple of them
  3. Several of them
  4. Most of them
  5. All of them I've been in contact with
65. At this school how many faculty members (instructors) have you disclosed your mental health problem to?
1. None
  2. A couple of them
  3. Several of them



4. Most of them
  5. All of them I've been in contact with
66. At this school how many staff members (non-instructors) have you disclosed your mental health problem to?
1. None
  2. A couple of them
  3. Several of them
  4. Most of them
  5. All of them I've been in contact with
67. Outside of school how many family members have you disclosed your mental health problem to?
1. None
  2. A couple of them
  3. Several of them
  4. Most of them
  5. All of them I've been in contact with
68. Outside of school how many friends have you disclosed your mental health problem to?
1. None
  2. A couple of them
  3. Several of them
  4. Most of them
  5. All of them I've been in contact with
69. Outside of school how many employers or co-workers have you disclosed your mental health problem to?
1. None
  2. A couple of them
  3. Several of them
  4. Most of them
  5. All of them I've been in contact with
- 

Please answer the following questions according to the following scale:

1	2	3	4	5
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>

*If I disclosed my mental health problem to everyone at school...*

- |     |   |   |   |   |
|-----|---|---|---|---|
| 70. | I would feel a sense of relief.                                     |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 71. | My relationships with others would be closer.                       |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 72. | I would be excluded from peers.                                     |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 73. | Other people would avoid me.  |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 74. | My self-esteem would increase.                                      |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 75. | I would not have the same educational opportunities.                |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 76. | It would increase awareness of those with mental health problems.   |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 77. | Other people would feel uncomfortable around me.                    |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 78. | Instructors would expect less from me.                              |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 79. | I could be a mentor for other students with mental health problems. |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 80. | I would be harassed.  |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 81. | I would feel closer to other students with mental health problems.  |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 82. | I would lose the opportunity to be mentored.                        |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |
| 83. | I would feel like I had a voice.                                    |   |   |   |
|     |   | 1 | 2 | 3 |
|     |   | 4 | 5 | 5 |

**The following is a list of problems people sometimes have. Please rate how much each problem has distressed or bothered you during the past seven days, including today.**

- |                   |                     |                   |                    |                  |
|-------------------|---------------------|-------------------|--------------------|------------------|
| 1                 | 2                   | 3                 | 4                  | 5                |
| <b>Not at all</b> | <b>A little bit</b> | <b>Moderately</b> | <b>Quite a bit</b> | <b>Extremely</b> |
- |     |                                  |   |   |   |
|-----|----------------------------------|---|---|---|
| 84. | Nervousness or shakiness inside. |   |   |   |
|     |                                  | 1 | 2 | 3 |
|     |                                  | 4 | 5 | 5 |
| 85. | Faintness or dizziness.          |   |   |   |
|     |                                  | 1 | 2 | 3 |
|     |                                  | 4 | 5 | 5 |

1	2	3	4	5
86.	The idea that someone else can control your thoughts.			
1	2	3	4	5
87.	Feeling others are to blame for most of your troubles.			
1	2	3	4	5
88.	Trouble remembering things.			
1	2	3	4	5
89.	Feeling easily annoyed or irritated.			
1	2	3	4	5
90.	Pains in the heart or chest.			
1	2	3	4	5
91.	Feeling afraid in open spaces.			
1	2	3	4	5
92.	Thoughts of ending your life.			
1	2	3	4	5
93.	Feeling that most people cannot be trusted.			
1	2	3	4	5
94.	Poor appetite.			
1	2	3	4	5
95.	Suddenly scared for no reason.			
1	2	3	4	5
96.	Temper outburst that you could not control.			
1	2	3	4	5
97.	Feeling lonely even when you are with people.			
1	2	3	4	5
98.	Feeling blocked in getting things done.			
1	2	3	4	5
99.	Feeling lonely.			
1	2	3	4	5
100.	Feeling blue.			
1	2	3	4	5
101.	Feeling no interest in things.			
1	2	3	4	5
102.	Feeling fearful.			
1	2	3	4	5
103.	Your feelings being easily hurt.			
1	2	3	4	5
104.	Feeling that people are unfriendly or dislike you.			

- |   |   |   |   |   |
|---|---|---|---|---|
| 1   | 2 | 3 | 4 | 5 |
| 105. Feeling inferior to others.  |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 106. Nausea or upset stomach.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 107. Feeling that you are watched or talked about by others.                          |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 108. Trouble falling asleep.  |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 109. Having to check and double check what you do.                                    |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 110. Difficulty making decisions.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 111. Feeling afraid to travel on buses, subways, or trains.                           |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 112. Trouble getting your breath.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 113. Hot or cold spells.  |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 114. Having to avoid certain things, places, or activities because they frighten you. |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 115. Your mind going blank.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 116. Numbness or tingling in parts of your body.                                      |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 117. The idea that you should be punished for your sins.                              |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 118. Feeling hopeless about the future.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 119. Trouble concentrating.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 120. Feeling weak in parts of your body.  |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 121. Feeling tense or keyed up.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 122. Thought of death or dying.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 123. Having urges to beat, injure or harm someone.                                    |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |

124. Having urges to break or smash things.
- 1                      2                      3                      4                      5
125. Feeling very self-conscious with others.
- 1                      2                      3                      4                      5
126. Feeling uneasy in crowds.
- 1                      2                      3                      4                      5
127. Never feeling close to another person.
- 1                      2                      3                      4                      5
128. Spells of terror or panic.
- 1                      2                      3                      4                      5
129. Getting into frequent arguments.
- 1                      2                      3                      4                      5
130. Feeling nervous when you are left alone.
- 1                      2                      3                      4                      5
131. Others not giving you proper credit for your achievements.
- 1                      2                      3                      4                      5
132. Feeling so restless you couldn't sit still.
- 1                      2                      3                      4                      5
133. Feeling of worthlessness.
- 1                      2                      3                      4                      5
134. Feeling that people will take advantage of you if you let them.
- 1                      2                      3                      4                      5
135. Feeling of guilt.
- 1                      2                      3                      4                      5
136. The idea that something is wrong with your mind.
- 1                      2                      3                      4                      5



***Thank you for your time!***

## *Learning Disabilities Survey*

I. Do you identify as having a learning disability?

(1) Yes

(2) No

If yes, please continue with the rest of the survey.

II. Have you received a diagnosis?

(1) Yes.

a. What is the diagnosis? \_\_\_\_\_

(2) No

Please answer the following questions about learning disabilities according to the following scale:

- |  | 1                        | 2               | 3                | 4            | 5                     |
|--|--------------------------|-----------------|------------------|--------------|-----------------------|
|  | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Undecided</b> | <b>Agree</b> | <b>Strongly Agree</b> |
| 1. In general, people at this school believe those with learning disabilities are responsible for their condition.   | 1                        | 2               | 3                | 4            | 5                     |
| 2. In general, people at this school believe those with learning disabilities are able to change.  | 1                        | 2               | 3                | 4            | 5                     |
| 3. In general, people at this school believe those with learning disabilities can overcome obstacles they may face.  | 1                        | 2               | 3                | 4            | 5                     |
| 4. In general, people at this school believe those with learning disabilities deserve the challenges they may encounter as part of having a learning disability. | 1                        | 2               | 3                | 4            | 5                     |
| 5. In general, people at this school believe that an individual has no control over whether they have a learning disability.                                     | 1                        | 2               | 3                | 4            | 5                     |
| 6. In general, people at this school fear individuals with learning disabilities.  | 1                        | 2               | 3                | 4            | 5                     |
| 7. In general, people at this school feel threatened by individuals with learning disabilities.  | 1                        | 2               | 3                | 4            | 5                     |
| 8. In general, people at this school feel individuals with learning disabilities may be dangerous.   | 1                        | 2               | 3                | 4            | 5                     |
| 9. In general, people at this school avoid individuals with learning disabilities because they feel unsafe.  | 1                        | 2               | 3                | 4            | 5                     |
| 10. In general, people at this school show no signs that they feel unsafe around individuals with learning disabilities.   | 1                        | 2               | 3                | 4            | 5                     |

- |     |  |   |   |   |   |
|-----|--|---|---|---|---|
|     | 1  | 2 | 3 | 4 | 5 |
| 11. | In general, people at this school are uncomfortable around individuals once they find out they have a learning disability.               |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 12. | In general, people at this school avoid talking about learning disabilities.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 13. | In general, people at this school discuss learning disabilities openly.  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 14. | In general, people at this school avoid individuals with learning disabilities because they feel uneasy around them.                     |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 15. | In general, people at this school show no signs that they are uncomfortable interacting with individuals who have a learning disability. |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 16. | My learning disability is unchanging over time.  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 17. | My acceptance of my learning disability has changed over time.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 18. | My learning disability will be the same 10 years from now.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 19. | I expect my acceptance of my learning disability to increase in the future.  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 20. | My learning disability is a constant in my life.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 21. | Overall, my learning disability has very little to do with how I feel about myself.  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 22. | My learning disability is an important reflection of who I am.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 23. | My learning disability is unimportant to my sense of what kind of person I am.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 24. | In general, my learning disability is an important part of my self-image.  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 25. | If I were asked to describe myself I would include my learning disability as part of that description.                                   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |

Please answer the following questions about other people at this school that have learning disabilities.

26. At this school how many other students have learning disabilities?

- (1) None
- (2) Few

- (3) Equal balance
  - (4) Most
  - (5) Don't know
27. At this school how many faculty (instructors) have learning disabilities?
- (1) None
  - (2) Few
  - (3) Equal balance
  - (4) Most
  - (5) Don't know
28. At this school how many staff members (non-instructors) have learning disabilities?
- (1) None
  - (2) Few
  - (3) Equal balance
  - (4) Most
  - (5) Don't know
29. At this school how many of your friends have learning disabilities?
- (6) None
  - (7) Few
  - (8) Equal balance
  - (9) Most
  - (10) Don't know

Please answer the following questions about your friends at this school who do NOT have learning disabilities.

- |  | 1                        | 2               | 3                | 4            | 5                     |
|--|--------------------------|-----------------|------------------|--------------|-----------------------|
|  | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Undecided</b> | <b>Agree</b> | <b>Strongly Agree</b> |
| 30. My friends at school give me the moral support I need.   | 1                        | 2               | 3                | 4            | 5                     |
| 31. Most other people are closer to their friends at school than I am.   | 1                        | 2               | 3                | 4            | 5                     |
| 32. My friends at school enjoy hearing what I think.   | 1                        | 2               | 3                | 4            | 5                     |
| 33. Certain friends at school come to me when they have problems or need advice.                                 | 1                        | 2               | 3                | 4            | 5                     |
| 34. I rely on my friends at school for emotional support.  | 1                        | 2               | 3                | 4            | 5                     |
| 35. If I felt that one or more of my friends at school were upset with me, I'd just keep it to myself.           | 1                        | 2               | 3                | 4            | 5                     |
| 36. I feel that I'm on the fringe in my circle of friends at school.   | 1                        | 2               | 3                | 4            | 5                     |
| 37. There is a friend at school I could go to if I were just feeling down, without feeling funny about it later. | 1                        | 2               | 3                | 4            | 5                     |



- |     |   |   |   |   |   |
|-----|---|---|---|---|---|
|     | 1   | 2 | 3 | 4 | 5 |
| 38. | My friends at school and I are very open about what we think about things.  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 39. | My friends at school are sensitive to my personal needs.  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 40. | My friends at school come to me for emotional support.  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 41. | My friends at school are good at helping me solve problems.   |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 42. | I have a deep sharing relationship with a number of friends at school.  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 43. | My friends at school get good ideas about how to do things or make things from me.                                    |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 44. | When I confide in friends at school, it makes me feel uncomfortable.  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 45. | My friends at school seek me out for companionship.   |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 46. | I think that my friends at school feel that I'm good at helping them solve problems.                                  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 47. | I don't have a relationship with a friend at school that is as intimate as other people's relationships with friends. |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 48. | I've recently gotten a good idea about how to do something from a friend at school.                                   |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |
| 49. | I wish my friends at school were much different.  |   |   |   |   |
|     | 1   | 2 | 3 | 4 | 5 |

Please answer the following questions about your experience at this school according to the following scale:

- |                          |  |                  |              |                       |   |
|--------------------------|--|------------------|--------------|-----------------------|---|
|                          | 1  | 2                | 3            | 4                     | 5 |
| <b>Strongly Disagree</b> | <b>Disagree</b>  | <b>Undecided</b> | <b>Agree</b> | <b>Strongly Agree</b> |   |
| 50.                      | Class sizes are so large I feel like a number.                   |                  |              |                       |   |
|                          | 1  | 2                | 3            | 4                     | 5 |
| 51.                      | The library staff is willing to help me find materials/books.    |                  |              |                       |   |
|                          | 1  | 2                | 3            | 4                     | 5 |
| 52.                      | University staff have been warm and friendly.                    |                  |              |                       |   |
|                          | 1  | 2                | 3            | 4                     | 5 |
| 53.                      | I do not feel valued as a student on campus.                     |                  |              |                       |   |
|                          | 1  | 2                | 3            | 4                     | 5 |
| 54.                      | Faculty have not been available to discuss my academic concerns. |                  |              |                       |   |

- |     |  |   |   |   |   |
|-----|--|---|---|---|---|
|     | 1  | 2 | 3 | 4 | 5 |
| 55. | Financial aid staff has been willing to help me with financial concerns. |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 56. | The university encourages/sponsors learning disability groups on campus. |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 57. | There are tutoring services available for me on campus.                  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 58. | The university seems to value students who have learning disabilities.   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 59. | Faculty have been available for help outside of class.                   |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 60. | The university feels like a cold, uncaring place to me.                  |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 61. | Faculty have been available to help me make course choices.              |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 62. | I feel as if no one cares about me personally on this campus.            |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |
| 63. | I feel comfortable in the university environment.                        |   |   |   |   |
|     | 1  | 2 | 3 | 4 | 5 |

**Please answer the following questions about to whom you have disclosed your learning disability.**

64. At this school how many other students have you disclosed your learning disability to?
1. None
  2. A couple of them
  3. Several of them
  4. Most of them
  5. All of them I've been in contact with
65. At this school how many faculty members (instructors) have you disclosed your learning disability to?
1. None
  2. A couple of them
  3. Several of them
  4. Most of them
  5. All of them I've been in contact with

66. At this school how many staff members (non-instructors) have you disclosed your learning disability to?

1. None
2. A couple of them
3. Several of them
4. Most of them
5. All of them I've been in contact with

67. Outside of school how many family members have you disclosed your learning disability to?

1. None
2. A couple of them
3. Several of them
4. Most of them
5. All of them I've been in contact with

68. Outside of school how many friends have you disclosed your learning disability to?

1. None
2. A couple of them
3. Several of them
4. Most of them
5. All of them I've been in contact with

69. Outside of school how many employers or co-workers have you disclosed your learning disability to?

1. None
2. A couple of them
3. Several of them
4. Most of them
5. All of them I've been in contact with

---

Please answer the following questions according to the following scale:

1	2	3	4	5
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>

*If I disclosed my learning disability to everyone at school...*

70. I would feel a sense of relief.
- 1                      2                      3                      4                      5
71. My relationships with others would be closer.
- 1                      2                      3                      4                      5
72. I would be excluded from peers.
- 1                      2                      3                      4                      5
73. Other people would avoid me.
- 1                      2                      3                      4                      5
74. My self-esteem would increase.
- 1                      2                      3                      4                      5
75. I would not have the same educational opportunities.
- 1                      2                      3                      4                      5
76. It would increase awareness of those with learning disabilities.
- 1                      2                      3                      4                      5
77. Other people would feel uncomfortable around me.
- 1                      2                      3                      4                      5
78. Instructors would expect less from me.
- 1                      2                      3                      4                      5
79. I could be a mentor for other students with learning disabilities.
- 1                      2                      3                      4                      5
80. I would be harassed.
- 1                      2                      3                      4                      5
81. I would feel closer to other students with learning disabilities.
- 1                      2                      3                      4                      5
82. I would lose the opportunity to be mentored.
- 1                      2                      3                      4                      5
83. I would feel like I had a voice.
- 1                      2                      3                      4                      5

**The following is a list of problems people sometimes have. Please rate how much each problem has distressed or bothered you during the past seven days, including today.**

- 1                      2                      3                      4                      5  
**Not at all              A little bit              Moderately              Quite a bit              Extremely**
84. Nervousness or shakiness inside.
- 1                      2                      3                      4                      5
85. Faintness or dizziness.
- 1                      2                      3                      4                      5

86. The idea that someone else can control your thoughts.
- 1                      2                      3                      4                      5
87. Feeling others are to blame for most of your troubles.
- 1                      2                      3                      4                      5
88. Trouble remembering things.
- 1                      2                      3                      4                      5
89. Feeling easily annoyed or irritated.
- 1                      2                      3                      4                      5
90. Pains in the heart or chest.
- 1                      2                      3                      4                      5
91. Feeling afraid in open spaces.
- 1                      2                      3                      4                      5
92. Thoughts of ending your life.
- 1                      2                      3                      4                      5
93. Feeling that most people cannot be trusted.
- 1                      2                      3                      4                      5
94. Poor appetite.
- 1                      2                      3                      4                      5
95. Suddenly scared for no reason.
- 1                      2                      3                      4                      5
96. Temper outburst that you could not control.
- 1                      2                      3                      4                      5
97. Feeling lonely even when you are with people.
- 1                      2                      3                      4                      5
98. Feeling blocked in getting things done.
- 1                      2                      3                      4                      5
99. Feeling lonely.
- 1                      2                      3                      4                      5
100. Feeling blue.
- 1                      2                      3                      4                      5
101. Feeling no interest in things.
- 1                      2                      3                      4                      5
102. Feeling fearful.
- 1                      2                      3                      4                      5
103. Your feelings being easily hurt.
- 1                      2                      3                      4                      5
104. Feeling that people are unfriendly or dislike you.
- 1                      2                      3                      4                      5

105. Feeling inferior to others.
- 1                      2                      3                      4                      5
106. Nausea or upset stomach.
- 1                      2                      3                      4                      5
107. Feeling that you are watched or talked about by others.
- 1                      2                      3                      4                      5
108. Trouble falling asleep.
- 1                      2                      3                      4                      5
109. Having to check and double check what you do.
- 1                      2                      3                      4                      5
110. Difficulty making decisions.
- 1                      2                      3                      4                      5
111. Feeling afraid to travel on buses, subways, or trains.
- 1                      2                      3                      4                      5
112. Trouble getting your breath.
- 1                      2                      3                      4                      5
113. Hot or cold spells.
- 1                      2                      3                      4                      5
114. Having to avoid certain things, places, or activities because they frighten you.
- 1                      2                      3                      4                      5
115. Your mind going blank.
- 1                      2                      3                      4                      5
116. Numbness or tingling in parts of your body.
- 1                      2                      3                      4                      5
117. The idea that you should be punished for your sins.
- 1                      2                      3                      4                      5
118. Feeling hopeless about the future.
- 1                      2                      3                      4                      5
119. Trouble concentrating.
- 1                      2                      3                      4                      5
120. Feeling weak in parts of your body.
- 1                      2                      3                      4                      5
121. Feeling tense or keyed up.
- 1                      2                      3                      4                      5
122. Thought of death or dying.
- 1                      2                      3                      4                      5
123. Having urges to beat, injure or harm someone.
- 1                      2                      3                      4                      5

124. Having urges to break or smash things.
- 1                      2                      3                      4                      5
125. Feeling very self-conscious with others.
- 1                      2                      3                      4                      5
126. Feeling uneasy in crowds.
- 1                      2                      3                      4                      5
127. Never feeling close to another person.
- 1                      2                      3                      4                      5
128. Spells of terror or panic.
- 1                      2                      3                      4                      5
129. Getting into frequent arguments.
- 1                      2                      3                      4                      5
130. Feeling nervous when you are left alone.
- 1                      2                      3                      4                      5
131. Others not giving you proper credit for your achievements.
- 1                      2                      3                      4                      5
132. Feeling so restless you couldn't sit still.
- 1                      2                      3                      4                      5
133. Feeling of worthlessness.
- 1                      2                      3                      4                      5
134. Feeling that people will take advantage of you if you let them.
- 1                      2                      3                      4                      5
135. Feeling of guilt.
- 1                      2                      3                      4                      5
136. The idea that something is wrong with your mind.
- 1                      2                      3                      4                      5



***Thank you for your time!***

## *Low Social Class Survey*

I. Do you identify as being from a lower social class than the majority of other students at this university?

(1) Yes

(2) No

If yes, please continue with the rest of the survey.

Please answer the following questions about low social class according to the following scale:

- |  | 1                        | 2               | 3                | 4            | 5                     |
|--|--------------------------|-----------------|------------------|--------------|-----------------------|
|  | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Undecided</b> | <b>Agree</b> | <b>Strongly Agree</b> |
| 1. In general, people at this school believe those from a low social class are responsible for their condition.  | 1                        | 2               | 3                | 4            | 5                     |
| 2. In general, people at this school believe those from a low social class are able to change.   | 1                        | 2               | 3                | 4            | 5                     |
| 3. In general, people at this school believe those from a low social class can overcome obstacles they may face.   | 1                        | 2               | 3                | 4            | 5                     |
| 4. In general, people at this school believe those from a low social class deserve the challenges they may encounter as part of having a low social class. | 1                        | 2               | 3                | 4            | 5                     |
| 5. In general, people at this school believe that an individual has no control over whether they are from a low social class.                              | 1                        | 2               | 3                | 4            | 5                     |
| 6. In general, people at this school fear individuals from a low social class.   | 1                        | 2               | 3                | 4            | 5                     |
| 7. In general, people at this school feel threatened by individuals from a low social class.   | 1                        | 2               | 3                | 4            | 5                     |
| 8. In general, people at this school feel individuals from a low social class may be dangerous.  | 1                        | 2               | 3                | 4            | 5                     |
| 9. In general, people at this school avoid individuals from a low social class because they feel unsafe.   | 1                        | 2               | 3                | 4            | 5                     |
| 10. In general, people at this school show no signs that they feel unsafe around individuals from a low social class.                                      | 1                        | 2               | 3                | 4            | 5                     |
| 11. In general, people at this school are uncomfortable around individuals once they find out they are from a low social class.                            | 1                        | 2               | 3                | 4            | 5                     |
| 12. In general, people at this school avoid talking about social classes.  | 1                        | 2               | 3                | 4            | 5                     |



13. In general, people at this school discuss social classes openly.
- 1                      2                      3                      4                      5
14. In general, people at this school avoid individuals from a low social class because they feel uneasy around them.
- 1                      2                      3                      4                      5
15. In general, people at this school show no signs that they are uncomfortable interacting with individuals from a low social class.
- 1                      2                      3                      4                      5
16. My social class is unchanging over time.
- 1                      2                      3                      4                      5
17. My acceptance of my social class has changed over time.
- 1                      2                      3                      4                      5
18. My social class will be the same 10 years from now.
- 1                      2                      3                      4                      5
19. I expect my acceptance of my social class to increase in the future.
- 1                      2                      3                      4                      5
20. My social class is a constant in my life.
- 1                      2                      3                      4                      5
21. Overall, my social class has very little to do with how I feel about myself.
- 1                      2                      3                      4                      5
22. My social class is an important reflection of who I am.
- 1                      2                      3                      4                      5
23. My social class is unimportant to my sense of what kind of person I am.
- 1                      2                      3                      4                      5
24. In general, my social class is an important part of my self-image.
- 1                      2                      3                      4                      5
25. If I were asked to describe myself I would include my social class as part of that description.
- 1                      2                      3                      4                      5

Please answer the following questions about others at this school that are from a low social class.

26. At this school how many other students are from a low social class?
- (1) None  
(2) Few  
(3) Equal balance  
(4) Most  
(5) Don't know
27. At this school how many faculty (instructors) are from a low social class?
- (1) None  
(2) Few  
(3) Equal balance

- (4) Most
- (5) Don't know

28. At this school how many staff members (non-instructors) are from a low social class?

- (1) None
- (2) Few
- (3) Equal balance
- (4) Most
- (5) Don't know

29. At this school how many of your friends are from a low social class?

- (1) None
- (2) Few
- (3) Equal balance
- (4) Most
- (5) Don't know

Please answer the following questions about your friends at this school who are NOT from a low social class.

	1	2	3	4	5
	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>
30. My friends at school give me the moral support I need.	1	2	3	4	5
31. Most other people are closer to their friends at school than I am.	1	2	3	4	5
32. My friends at school enjoy hearing what I think.	1	2	3	4	5
33. Certain friends at school come to me when they have problems or need advice.	1	2	3	4	5
34. I rely on my friends at school for emotional support.	1	2	3	4	5
35. If I felt that one or more of my friends at school were upset with me, I'd just keep it to myself.	1	2	3	4	5
36. I feel that I'm on the fringe in my circle of friends at school.	1	2	3	4	5
37. There is a friend at school I could go to if I were just feeling down, without feeling funny about it later.	1	2	3	4	5
38. My friends at school and I are very open about what we think about things.	1	2	3	4	5
39. My friends at school are sensitive to my personal needs.	1	2	3	4	5

40. My friends at school come to me for emotional support.
- 1                      2                      3                      4                      5
41. My friends at school are good at helping me solve problems.
- 1                      2                      3                      4                      5
42. I have a deep sharing relationship with a number of friends at school.
- 1                      2                      3                      4                      5
43. My friends at school get good ideas about how to do things or make things from me.
- 1                      2                      3                      4                      5
44. When I confide in friends at school, it makes me feel uncomfortable.
- 1                      2                      3                      4                      5
45. My friends at school seek me out for companionship.
- 1                      2                      3                      4                      5
46. I think that my friends at school feel that I'm good at helping them solve problems.
- 1                      2                      3                      4                      5
47. I don't have a relationship with a friend at school that is as intimate as other people's relationships with friends.
- 1                      2                      3                      4                      5
48. I've recently gotten a good idea about how to do something from a friend at school.
- 1                      2                      3                      4                      5
49. I wish my friends at school were much different.
- 1                      2                      3                      4                      5

Please answer the following questions about your experience at this school according to the following scale:

- |   | 1                        | 2               | 3                | 4            | 5                     |
|---|--------------------------|-----------------|------------------|--------------|-----------------------|
|   | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Undecided</b> | <b>Agree</b> | <b>Strongly Agree</b> |
| 50. Class sizes are so large I feel like a number.  |                          |                 |                  |              |                       |
|   | 1                        | 2               | 3                | 4            | 5                     |
| 51. The library staff is willing to help me find materials/books.                             |                          |                 |                  |              |                       |
|   | 1                        | 2               | 3                | 4            | 5                     |
| 52. University staff have been warm and friendly.   |                          |                 |                  |              |                       |
|   | 1                        | 2               | 3                | 4            | 5                     |
| 53. I do not feel valued as a student on campus.  |                          |                 |                  |              |                       |
|   | 1                        | 2               | 3                | 4            | 5                     |
| 54. Faculty have not been available to discuss my academic concerns.                          |                          |                 |                  |              |                       |
|   | 1                        | 2               | 3                | 4            | 5                     |
| 55. Financial aid staff has been willing to help me with financial concerns.                  |                          |                 |                  |              |                       |
|   | 1                        | 2               | 3                | 4            | 5                     |
| 56. The university encourages/sponsors groups for students from a low social class on campus. |                          |                 |                  |              |                       |

- |     |   |   |   |   |
|-----|---|---|---|---|
| 1   | 2   | 3 | 4 | 5 |
| 57. | There are tutoring services available for me on campus.                 |   |   |   |
| 1   | 2   | 3 | 4 | 5 |
| 58. | The university seems to value students who are from a low social class. |   |   |   |
| 1   | 2   | 3 | 4 | 5 |
| 59. | Faculty have been available for help outside of class.                  |   |   |   |
| 1   | 2   | 3 | 4 | 5 |
| 60. | The university feels like a cold, uncaring place to me.                 |   |   |   |
| 1   | 2   | 3 | 4 | 5 |
| 61. | Faculty have been available to help me make course choices.             |   |   |   |
| 1   | 2   | 3 | 4 | 5 |
| 62. | I feel as if no one cares about me personally on this campus.           |   |   |   |
| 1   | 2   | 3 | 4 | 5 |
| 63. | I feel comfortable in the university environment.                       |   |   |   |
| 1   | 2   | 3 | 4 | 5 |

Please answer the following questions about to whom you have disclosed your low social class background.

64. At this school how many other students have you disclosed your low social class to?
- 1) None
  - 2) A couple of them
  - 3) Several of them
  - 4) Most of them
  - 5) All of them I've been in contact with
65. At this school how many faculty members (instructors) have you disclosed your low social class to?
- 1) None
  - 2) A couple of them
  - 3) Several of them
  - 4) Most of them
  - 5) All of them I've been in contact with
66. At this school how many staff members (non-instructors) have you disclosed your low social class to?
- 1) None
  - 2) A couple of them

- 3) Several of them
- 4) Most of them
- 5) All of them I've been in contact with

67. Outside of school how many family members have you disclosed your low social class to?

- 1) None
- 2) A couple of them
- 3) Several of them
- 4) Most of them
- 5) All of them I've been in contact with

68. Outside of school how many friends have you disclosed your low social class to?

- 1) None
- 2) A couple of them
- 3) Several of them
- 4) Most of them
- 5) All of them I've been in contact with

69. Outside of school how many employers or co-workers have you disclosed your low social class to?

- 1) None
- 2) A couple of them
- 3) Several of them
- 4) Most of them
- 5) All of them I've been in contact with

Please answer the following questions according to the following scale:

1	2	3	4	5
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>

*If I disclosed my low social class status to everyone at school...*

70. I would feel a sense of relief.

1	2	3	4	5
71. My relationships with others would be closer.				

1	2	3	4	5
---	---	---	---	---

72. I would be excluded from peers.
- 1                      2                      3                      4                      5
73. Other people would avoid me.
- 1                      2                      3                      4                      5
74. My self-esteem would increase.
- 1                      2                      3                      4                      5
75. I would not have the same educational opportunities.
- 1                      2                      3                      4                      5
76. It would increase awareness of those from a low social class.
- 1                      2                      3                      4                      5
77. Other people would feel uncomfortable around me.
- 1                      2                      3                      4                      5
78. Instructors would expect less from me.
- 1                      2                      3                      4                      5
79. I could be a mentor for other students from a low social class.
- 1                      2                      3                      4                      5
80. I would be harassed.
- 1                      2                      3                      4                      5
81. I would feel closer to other students from a low social class.
- 1                      2                      3                      4                      5
82. I would lose the opportunity to be mentored.
- 1                      2                      3                      4                      5
83. I would feel like I had a voice.
- 1                      2                      3                      4                      5

**The following is a list of problems people sometimes have. Please rate how much each problem has distressed or bothered you during the past seven days, including today.**

- |  | 1          | 2            | 3          | 4           | 5         |
|--|------------|--------------|------------|-------------|-----------|
|  | Not at all | A little bit | Moderately | Quite a bit | Extremely |
| 84. Nervousness or shakiness inside.                       | 1          | 2            | 3          | 4           | 5         |
| 85. Faintness or dizziness.                                | 1          | 2            | 3          | 4           | 5         |
| 86. The idea that someone else can control your thoughts.  | 1          | 2            | 3          | 4           | 5         |
| 87. Feeling others are to blame for most of your troubles. | 1          | 2            | 3          | 4           | 5         |
| 88. Trouble remembering things.                            | 1          | 2            | 3          | 4           | 5         |

1	2	3	4	5
89.	Feeling easily annoyed or irritated.			
1	2	3	4	5
90.	Pains in the heart or chest.			
1	2	3	4	5
91.	Feeling afraid in open spaces.			
1	2	3	4	5
92.	Thoughts of ending your life.			
1	2	3	4	5
93.	Feeling that most people cannot be trusted.			
1	2	3	4	5
94.	Poor appetite.			
1	2	3	4	5
95.	Suddenly scared for no reason.			
1	2	3	4	5
96.	Temper outburst that you could not control.			
1	2	3	4	5
97.	Feeling lonely even when you are with people.			
1	2	3	4	5
98.	Feeling blocked in getting things done.			
1	2	3	4	5
99.	Feeling lonely.			
1	2	3	4	5
100.	Feeling blue.			
1	2	3	4	5
101.	Feeling no interest in things.			
1	2	3	4	5
102.	Feeling fearful.			
1	2	3	4	5
103.	Your feelings being easily hurt.			
1	2	3	4	5
104.	Feeling that people are unfriendly or dislike you.			
1	2	3	4	5
105.	Feeling inferior to others.			
1	2	3	4	5
106.	Nausea or upset stomach.			
1	2	3	4	5
107.	Feeling that you are watched or talked about by others.			

- |   |   |   |   |   |
|---|---|---|---|---|
| 1   | 2 | 3 | 4 | 5 |
| 108. Trouble falling asleep.  |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 109. Having to check and double check what you do.                                    |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 110. Difficulty making decisions.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 111. Feeling afraid to travel on buses, subways, or trains.                           |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 112. Trouble getting your breath.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 113. Hot or cold spells.  |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 114. Having to avoid certain things, places, or activities because they frighten you. |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 115. Your mind going blank.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 116. Numbness or tingling in parts of your body.                                      |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 117. The idea that you should be punished for your sins.                              |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 118. Feeling hopeless about the future.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 119. Trouble concentrating.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 120. Feeling weak in parts of your body.  |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 121. Feeling tense or keyed up.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 122. Thought of death or dying.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 123. Having urges to beat, injure or harm someone.                                    |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 124. Having urges to break or smash things.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 125. Feeling very self-conscious with others.   |   |   |   |   |
| 1   | 2 | 3 | 4 | 5 |
| 126. Feeling uneasy in crowds.  |   |   |   |   |



1                    2                    3                    4                    5  
127. Never feeling close to another person.

1                    2                    3                    4                    5  
128. Spells of terror or panic.

1                    2                    3                    4                    5  
129. Getting into frequent arguments.

1                    2                    3                    4                    5  
130. Feeling nervous when you are left alone.

1                    2                    3                    4                    5  
131. Others not giving you proper credit for your achievements.

1                    2                    3                    4                    5  
132. Feeling so restless you couldn't sit still.

1                    2                    3                    4                    5  
133. Feeling of worthlessness.

1                    2                    3                    4                    5  
134. Feeling that people will take advantage of you if you let them.

1                    2                    3                    4                    5  
135. Feeling of guilt.

1                    2                    3                    4                    5  
136. The idea that something is wrong with your mind.

1                    2                    3                    4                    5

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***Thank you for your time!***