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The Influence of ADHD and Bipolar Disorder Symptoms and Labels on Private High School Teachers' Accommodations and Attitudes

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Running head: ACCOMMODATIONS FOR STUDENTS' MENTAL ILLNESS

The Influence of ADHD and Bipolar Disorder Symptoms and Labels on Private High
School Teachers' Accommodations and Attitudes

A thesis presented by

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to the Department of Psychology

in partial fulfillment of the requirements

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Connecticut College

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ACCOMMODATIONS FOR STUDENTS' MENTAL ILLNESS

Abstract

The present study examined the effects of symptoms and diagnostic labeling on teachers' accommodations for and opinions of a student presented in a vignette containing a behavioral description of ADHD or Bipolar Disorder in an adolescent girl. Participants were 85 teachers from five New England private high schools who read a vignette and then answered subsequent questions in an online survey to measure opinions of that student and hypothetical accommodations. Additionally, questions measured participants' familiarity with mental illness, opinions on mental illness, and beliefs in the causes of the disorders so that the relationship of these variables to accommodations and impressions could be examined. Results indicated that teachers were more affected by the symptoms of the disorder they read about than whether the disorders were labeled or unlabeled, although labeling seemed to have some minor effects. These results connect with a set of findings, within a mixed body of research, that shows that labels do not always have a major effect on participants, and instead it is the behavior of people that changes others' judgments. Several findings may have implications for students in private high schools that are looking to receive help and support from their teachers, and for schools that are looking to enhance teaching responsiveness to students with mental illness.

Keywords: diagnostic labels, familiarity, stigma, causal explanations, accommodations

ACCOMMODATIONS FOR STUDENTS' MENTAL ILLNESS

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The Influence of ADHD and Bipolar Disorder Symptoms and Labels on Private High School Teachers' Accommodations and Attitudes

Mental illness stigma is a widespread phenomenon that has received increasing research and attention over the past 10 years. Mental illness stigma refers to the negative evaluations and reactions that people with mental illness experience from others. Stigma can be experienced through discriminating actions, such as not being hired for jobs, derogatory comments, refusal to help, and the detainment of those with mental illness in the criminal justice system; it can also be present in attitudes, which can manifest in fear of those with mental illness or belief in their dangerousness or responsibility for their disorder. Mental illness stigma has been primarily studied in adults. Studies demonstrate that adults have stigmatizing views toward those with mental illness (e.g., Borinstein, 1992); in addition, adults with mental illness report experiences of stigma from others (e.g., Rosenfeld, 1997). As Kranke and Floersch (2009) revealed, adolescents with mental illness feel similar stigma from others, and many researchers believe that the experience of stigma in children and adolescents resembles the experience of stigma in adults. Some believe that labeling people as “mentally ill” or even labeling them with a specific disorder exacerbates the stigma that people experience (e.g., Corrigan, 2007), whereas others find that it is the behaviors and symptoms of people with mental illness, not necessarily the label, that induce the responses associated with stigma (e.g., Fairbanks & Stinnet, 1997). This background literature review will highlight some positive and negative influences of labeling and will analyze the impact of labels for adolescents with mental illness in classroom settings as it builds a foundation for the present research.

This thesis builds on the small but growing body of research on mental illness stigma and labeling in children, and extends it by investigating mental illness stigma and accommodations in private schools, in high school, and with girls. The American Disabilities Act of 1990 only affects public institutions and the academic adjustments they must make for students with mental illness, which is why it is important to study teacher perceptions and practices in private institutions; teachers in private institutions are left to their own discretion to determine appropriate accommodations for students with mental illness. School studies are less frequently conducted in high school settings than in elementary schools or universities, which is why high schools are the target environments of the present study. Girls are studied in the present thesis because boys with mental and behavioral difficulties are more frequently studied, and more should be understood about challenges for girls.

Specifically, this thesis examines the influence of diagnostic labeling on private school teachers' perceptions of and accommodations for adolescent girls with symptoms of Bipolar Disorder or Attention-Deficit Hyperactivity Disorder (ADHD). To provide the background for this investigation, the thesis first presents a review of relevant literature on general mental illness stigma, as well as a review of labeling theory and research. The literature in the introduction then examines how these issues affect students with mental illness in classroom and school settings. This section also reviews disability policies and practices in public and private high schools, and existing research on teachers' perceptions of students with mental illness and their provision of accommodations. The literature review then provides background on the two disorders examined in the present investigation (ADHD and Bipolar Disorder) including their symptoms, gender

differences, and symptom overlap. With this background, the thesis presents an experimental investigation of the effects of labeling on teacher responses to hypothetical vignettes of adolescent girls with symptoms of ADHD or Bipolar Disorder, with the goal of learning more about the experience of students with mental illness in private high schools, and creating informed recommendations about how to improve this experience.

Stigma and Attitudes toward Mental Illness

What is it that makes people categorize themselves and others, creating ingroups and outgroups in society? What are the effects of these categorizations? Mental illness stigma research provides some answers to these questions. “Stigma refers to a global devaluation of certain individuals on the basis of some characteristic they possess, related to membership in a group that is disfavored, devalued, or disgraced by the general society” (Hinshaw, 2007, p. 23). Stigmatization is a well-noted effect that can lead to many negative outcomes for individuals who are the target of stigma; it also maintains the hierarchical nature of society. “Once individuals are stigmatized, they are likely to be discriminated against and excluded from many forms of social interchange” (Hinshaw, 2007, p. 25). Clearly, stigma can lead to many negative outcomes.

Although many conditions can be and are stigmatized in our society (e.g., disability, race, and sexual orientation), stigma is an important phenomenon to study in association with mental illness. In fact, some argue that the effects of mental illness stigma are often worse than are the effects of the illness itself. People with mental illness are frequently met with the negative impacts of stigma from people without mental illness, which can come in many forms of behaviors and attitudes, such as increased involvement in the criminal system, fewer employment opportunities, desire for social

distance, dehumanization, and lowered expectations in their abilities. Researchers have identified many factors that can increase, mediate, or decrease the amount of negative stigma experienced by people with mental illness. Factors include, but are not limited to, familiarity with mental illness, belief in the cause of the illness, how easily the disorder is noticed, and opinions about mental illness.

General Knowledge and Attitudes.

Large surveys of the general population's opinions of mental illness have helped document the level of stigma in our society, as well as examine its potential causes. Borinstein (1992) used a survey to assess Americans' changing perceptions of mental illness. He contacted 1,326 Americans older than 21 years old by telephone and asked them to complete the survey in 1989. This survey assessed a variety of opinions on mental illness. He found that respondents (69%) believe that more people have mental illnesses than twenty years prior (1969); a large percentage of the population identified mental illness as a serious health problem at the time of study (89%). Almost 75% of respondents believed that anyone could be affected by mental illness, and similarly, respondents reported they did not feel that it was easy to identify those with mental illness (about 60%). About 66% of respondents reported that there is a stigma against mental illness in our society. Almost half disagreed with the statement that mental illness cannot be cured (46%), suggesting hope and support for people with mental illness. Further, more than half of respondents believed that treatment can help people with mental illness (54%) and that life in a normal community can be helpful to those with mental illness (53%). Respondents largely disagreed that people with mental illness should be kept behind locked doors (81%). A plurality believed that mental health

facilities should be allowed in residential neighborhoods (44%), but between 15 and 35% of respondents were concerned about the dangerousness of people with mental illness. Additionally, there were mixed responses regarding whether or not property values would decrease with people with mental illness living in communities; 29% of respondents thought that it would not harm property values, whereas 33% thought that it would. Although respondents' views about mental illness were not decisively negative, the public was not willing to welcome individuals with mental illness into their neighborhoods. This attitude of exclusion was more pronounced among people with a higher income.

Borinstein (1992) also reported on the public's knowledge of and personal interaction with mental illness. A relatively small percentage of respondents reported having sought personal help from mental health professionals (16%). In the Borinstein survey, respondents believed that mental illness may be caused by a variety of factors; participants responded that the following were possible causes: alcohol/drug abuse (93%), chemical imbalance (91%), stress of life (90%), accidental injury (83%), inherited (63%), and a lack of discipline (58%). Responses varied as to whether people thought that mental illness was different than medical illness with 43% agreeing that they are similar, 28% believing that they are different, and 28% falling in the middle. Twenty-five percent of participants felt that they were not well informed about mental illness, and about 60% of all respondents felt that they should learn more about mental illness. The media had the greatest effect on respondents' knowledge of mental illness, with 87% of respondents reporting that television contributed to their knowledge of mental illness in the past few years. Responses suggest that the respondents had doubt about the accuracy of media

portrayals with only 5% reporting the media as extremely believable, 29% as very believable, 61% as somewhat believable, and 2% as not at all believable.

Borinstein (1992) concluded that the American public became increasingly aware of mental illness over the decades prior to 1989. He related this increase in knowledge to several factors including deinstitutionalization, more medicines aimed to treat psychiatric problems, decreasing stigma about seeing a psychologist, more insurances covering mental health, and public health education campaigns. Overall, Borinstein's (1992) results implied that people were gaining more awareness and a better understanding of people with mental illness, but also suggested that the public needs more education and wants to learn more about mental illness. This research provides an idea of what the general public believed and knew about mental illness in adults in 1989, and allows current information about mental illness stigma and knowledge to be compared in a longitudinal way.

Martin, Pescosolido, and Tuch (2000) used interviews with American adults to assess current opinions on mental illness and stigma more recently. They presented adults with vignettes that depicted the behaviors of schizophrenia, major depression, drug dependency, alcohol dependency, and subclinical problems. They asked participants to assess the causes and severity of the person's problems. The participants were then asked whether the person was suffering from a mental illness or other types of problems. To measure stigma, social distance was assessed using a scale to measure participants' willingness to interact with the people depicted. Researchers additionally asked whether the participant viewed the person as competent or dangerous.

Major depression, alcohol dependence, and the subclinical problems were most commonly attributed to stressful circumstances; schizophrenia was most commonly attributed to a chemical imbalance; and drug dependency was attributed to bad character. Only 54.4% of the participants who read about schizophrenia thought that it was very likely a mental illness, and only 20.4% of participants who read about depression thought that it was very likely a mental illness. Participants were the most unwilling to interact with people suffering from substance dependence (71.8% of participants who read about drug dependence and 55.7% of participants who read about alcohol dependence) and somewhat unwilling to interact with those with mental illness (48.4% of participants who read about schizophrenia and 57.4% of those who read about depression). Only 20.8% of participants were unwilling to interact with the person with subclinical problems. Participants were more likely to think that the people suffering from substance dependency (87.3% for drug dependency and 70.9% for alcohol dependency) were likely to be violent than were people suffering from other mental illnesses (60.9% for schizophrenia and 33.3% for depression), which were also more likely to be considered violent than the subclinical troubles (16.7%).

In further analyses when controlling for other variables, researchers found that participants had a higher desire to avoid the four clinical categories when compared to the subclinical troubles. Participants were more likely to avoid those whom they categorized as mentally ill than those whom they had not classified in that way. When causes were attributed to extra-individual sources, such as chemical imbalance, it reduced participants' desired social distance. Social distance increased when participants rated people as more likely to be dangerous or with a higher potential for violence. The results of Martin,

Pescosolido, and Tuch (2000) suggest that the majority of Americans still express stigma, as demonstrated with increased desire for social distance, toward those experiencing mental illness.

Surveys about mental illness in children comparable to Borinstein's (1992) investigation of adult attitudes are not available, but other research on adults' perceptions of mental illness, and some on peer perceptions of mental illness, has been helpful in establishing what people understand, and how they think about mental illness in children. In one of a few studies about stigma from peers toward adolescents with mental illness, Wright, Jorm, and Mackinnon (2011) completed a phone survey among Australians between the ages of 12 and 25 years. Researchers read respondents vignettes with different emotional and behavioral problems representing symptoms of depression, psychosis/schizophrenia, and social phobia, but diagnostic labels were not presented in any vignette. The respondents were asked to describe the person in the vignette and attempt to describe the nature of the person's problems (which could result in a label), and then answer questions to assess personal stigma, perceived stigma, and social distance. Respondents were most likely to accurately identify depression, followed by psychosis/schizophrenia. Respondents were least likely to correctly identify social phobia.

This review focuses on the respondents who correctly identified the disorder presented because by focusing on these participants, one can analyze the stigma that is directed at specific disorders from a more knowledgeable group of people who can recognize which disorder the symptoms are indicative of. For all three disorders, the target was more often identified as sick and not weak; the respondents who heard the

schizophrenia vignette were most likely to identify them as dangerous and unpredictable. The finding that adolescent and young adult participants were more likely to identify someone with mental illness as sick rather than weak is of limited relevance to the understanding of stigma because describing a person as sick may also lead to stigma, but it demonstrated that participants were less likely to blame their peers as being responsible for their illnesses; it may also imply a greater belief in biological causes of mental illness compared to psychosocial causes. Adolescent and young adult participants varied in their ability to correctly label disorders and this fluctuated by disorder. Overall, 1010 participants (27%) correctly labeled the vignettes out of 3746 total participants; they did not blame the peers for their illness, but they still identified psychosis/schizophrenia as dangerous.

To gain a better understanding of adults' knowledge of mental illness in children in the United States, Pescosolido et al. (2008) used the data from the National Stigma Study - Children, which was a 15-minute component of the General Social Survey (Pescosolido, 2007). The General Social Survey gathers information about non-institutionalized adult Americans' opinions on a variety of issues; one of every two participants in the sample received the National Stigma Study – Children, in addition to the General Social Survey (Pescosolido, 2007). One thousand sixty-six adults completed the National Study– Children, which consisted of person-to-person interviews for the research of Pescosolido et al. (2008). Researchers read vignettes about children with ADHD, depression, or daily troubles to the participants; all vignettes included descriptions of symptoms (emotional or behavioral problems) but no vignettes included a diagnostic label. Participants answered open-ended questions that assessed what they

believed was wrong with the child, whether they thought it was a mental illness, and how severe they perceived the troubles to be. Pescosolido et al. (2008) found that the majority of adults who participated were able to correctly differentiate daily troubles from depression and ADHD. The greatest percentage of participants were able to identify daily troubles as not a mental disorder (71.2%); 58.5% of participants correctly identified depression; and 41.9% of participants correctly identified ADHD as the disorder in the vignettes. The majority of participants (69.3%) believed that the child in the depression vignette had a mental illness, but interestingly, 12.8% of those who correctly identified the vignette as depression rejected the label of mental illness as fitting to describe depression. Many participants (45.6%) labeled the vignette with ADHD as a child with mental illness, but 19.1% of those who correctly identified it as ADHD rejected categorizing it as mental illness. Adults rated depression as more severe than ADHD in children. The majority of respondents believed that ADHD (75.7%) and depression (89.8%) would improve with medical treatment. In terms of treatment, the most common sources of help identified for children in the vignettes were teachers for the ADHD vignette (88.3% of respondents) and mental health professionals for the depression vignette (95.1%).

Pescosolido et al. (2008) demonstrated that many participants were able to correctly select a label for a child's behavioral problems in the study. They also found that even when participants were able to correctly select a diagnostic label to match the description, some participants disagreed that the diagnoses qualified as mental illnesses. One cannot interpret what people meant when they presented this belief, but it shows that even people who are knowledgeable about specific disorders may not know much about

mental illness in general or in children. Unfortunately, a lack of knowledge could create fear, which could perpetuate stigma against children with mental illness. Alternatively, this discrepancy between the ability to identify disorders and the knowledge that disorders qualify as mental illness may suggest that participants are just hesitant in assigning the label of mental illness. An additional finding was that adults differed on whom they would seek help from based on different disorders. Pensocolido et al. (2008) did not directly measure stigma toward children with mental illness, but they did learn that although some adults could correctly identify disorders, they did not always classify these disorders as mental illnesses.

As recently as 2005, Markowitz reported that the American public has gained a greater understanding of mental illness, and that they are more frequently able to identify less extreme mental illnesses when compared with the past. Still, despite a greater breadth of knowledge in the general public about mental illness, Markowitz (2005) noted that a higher percentage of people were likely to associate people with mental illness with dangerousness, violence, and unpredictability; they also desired greater social distance and feared coercion from people with mental illness.

These studies highlighted research that investigated how people felt about others with mental illness. Borinstein (1992) had mixed results on the knowledge and opinions of American adults about other adults with mental illness; some results suggested an increasing sense of understanding, but stigmatizing views were still expressed. More recently, in 2000, adult Americans still did not identify mental disorders as a mental illness, and they still desired social distance from those with mental illness, especially when they perceive the person to be violent (Martin et al., 2000). Wright, et al. ((2011)

found that adolescents varied on their ability to correctly identify disorders in other adolescents; the majority of adolescent and young adult participants thought of schizophrenia/psychosis as dangerous, but they thought that people with mental illness were sick and not to blame for disorders. When investigating adults' knowledge of mental illness in children, Pensocolido et al. (2008) found that although many adults could correctly identify disorders in children, they did not always agree that these disorders were mental illnesses, suggesting a gap in knowledge. Markowitz (2005) argued that Americans are more knowledgeable about mental illness today than in the past, but display greater signs of stigma, such as a desire for social distance. Clearly these studies showed that there is more for the general public to learn about mental illness because there is a gap in knowledge and remaining stigma against those with mental disorders.

Self-Reported Stigma.

The previous section addressed the public's general knowledge and opinions towards people with mental illness, but that information fails to properly describe the full experience of stigma experienced by those who are mentally ill. This section on self-reported stigma seeks to highlight people's subjective experiences of stigma to better describe what stigma feels like for those with mental disorders.

In a study about the experience of perceived stigma in patients with chronic mental illness, Rosenfeld (1997) discussed both the positive and negative experiences of people with these illnesses. The purpose of her study was to investigate the effects of stigma felt and services provided on their quality of life. The participants of this study were adult patients with chronic mental illness who attend a day treatment center. In

interviews, Rosenfeld (1997) assessed the participants' quality of life, different type of services received, mutual empowerment, stigma, self-esteem, and sense of mastery. Participants reported high levels of self-reported stigma. This stigma was demonstrated with 65% of participants believing that people do not accept former mental patients as friends, 57% think that others do not find them intelligent, 53% think that others do not see former mental patients as trustworthy, and 77% believed that employers would not consider their job offers. This did mean that close to half of participants did not report feelings of stigma for certain questions. The experiences of those who felt stigma were significantly correlated with a decreased quality of life for patients. Increases in the number of services received were correlated with an increased quality of life for patients. Surprisingly, there was no relationship between stigma and received services. Increased stigma was related to decreased self-esteem, which in turn was related to decreased quality of life. Rosenfeld (1997) also reported that the positive relationship between services on quality of life was mediated by self-esteem. These findings suggest that being an individual with a mental illness is associated with experienced stigma and low self-esteem, but that mental illness can also elicit services and those services can have the opposite effect on people; services may increase quality of life, and improve self-esteem. These results also show that even though people with mental illness may experience stigma, receiving treatment can help them improve their self-esteem and quality of life in addition to symptom reduction.

Although Rosenfeld (1997) found that only a little more than half of former patients with mental illnesses experienced stigma in some sense, the following results from an adolescent sample are not as positive. Kranke and Floersch (2009) studied stigma

experienced by adolescents with mental illness in schools. In 2009, Kranke and Floersch interviewed adolescents between the ages of 12 and 17 who had a diagnosis of mental illness and were taking medication for that diagnosis. The researchers used the Teen Subjective Experience of Medication Interview, which allowed for open-ended responses to questions. Mood disorders were diagnosed in 77% of participants, and 67.5% of participants had a diagnosis of ADHD. Interviews were coded for feelings of shame when compared to peers who did not take medication; their desire to keep mental illnesses and diagnoses secretive; and how they felt others perceived their need for medication. From this coding, the researchers found themes that were present among the majority of respondents' answers. Adolescents experienced ostracism from peers that they then would internalize, subsequently excluding themselves from social situations; this also led to an avoidance of disclosure to peers. The adolescents who were interviewed felt their peers did not fully understand the nature of their mental illnesses. Participants reported positive effects and a sense of belonging from interacting with others with mental illness, when participants had experienced these interactions with other adolescents with mental illness. Participants reported that teachers would misunderstand them and be unsympathetic to their conditions; teachers would also frequently discriminate or ridicule the students. These findings show that students may experience stigma from both their peers and teachers in high schools.

Although Kranke and Floersch (2009) did not use percentages or statistics to report their findings about adolescents' experiences with mental illness, this article highlighted a number of important challenges that adolescents with mental illness face. They felt ostracized from their peers, whom they also felt did not have a full

understanding of their problems; however, they felt comfort when interacting with other peers with mental illness. Adolescents reported feeling stigma and a lack of understanding from their teachers, which would result in discriminating behaviors. The interviews from Kranke and Floersch (2009) clearly demonstrated that adolescents with mental illness experience stigma.

This research demonstrated that both adults and children/adolescents with mental illness report experiencing stigma from others. Despite greater knowledge about mental illness, American adults still experience stigmatizing views and act in stigmatizing ways (Markowitz, 2005), and this finding was supported with the subjective experiences presented above. Studies of individuals with mental illness reveal clear messages about the enduring presence of stigma, which people with mental illness even experience from those who are supposed to be in helping roles like teachers of students with mental illness.

The Influence of Familiarity on Stigma.

One focus of mental illness stigma research is the various factors that can affect the formation and strength of stigma. Two of these factors seem to be especially relevant to the present investigation and to the issue of teachers' perceptions of student mental illness: familiarity with mental illness and labeling. Research suggests that familiarity with mental illness is related to lower rates of stigma, and the research on labeling is inconsistent, with some studies suggesting that labels do not affect the level of stigma whereas others suggest that labels exacerbate the stigma that arises in reaction to behaviors and symptoms.

Corrigan et al. (2001) conducted a large investigation of various factors related to mental illness stigma, including familiarity, to try to measure how they relate to each

other. Specifically, Corrigan et al. (2001) proposed a path model to demonstrate the process by which people form stigma against those with mental illness. The study emphasized social distance between people with mental illness and other individuals, which is one of many potential measurable outcomes of mental illness stigma. The proposed path was that familiarity with mental illness would reduce perceptions of perceived dangerousness of people with mental illness, which would be related to lower fear of people with mental illness, and therefore would lead to lower social distance. According to this model, someone who was unfamiliar with mental illness would have higher ratings of perceived dangerousness and a high rating of fear, which would increase social distance. To analyze this proposed model, Corrigan et al. (2001) surveyed community college students. They assessed familiarity with mental illness with the Level of Contact Report. Perceived dangerousness and fear were assessed in additional questions. The Social Distance Scale was used to measure the social distance that participants would maintain from people with mental illness.

A large majority of their participants had exposure to mental illness, over 90% through movies and about 25% having worked with someone with mental illness or having a relative with mental illness, which is consistent with other studies' reports of increasing awareness of mental illness. When testing the hypothesized model, most binary correlations were significant; however, familiarity with mental illness and assessed fear were not correlated, but both were correlated with perception of dangerousness. High correlations were found between perceived dangerousness and fear and between fear and social distance. Familiarity with mental illness and social distance were also significantly negatively correlated. Although a Chi-Square analysis revealed

some problems with the fit of the path model, this path model was better when compared with a null model. Although the path model did not perfectly explain the process by which people engage in social distancing, it did clarify the importance of familiarity with mental illness in reducing stigma. Familiarity with mental illness was negatively correlated with perception of dangerousness, and negatively correlated with social distance.

Corrigan et al. (2003) examined familiarity with mental illness and other variables in a study testing an attributional model for mental illness. In a study with community college students, they measured familiarity with mental illness, beliefs in the responsibility of the person, pity, anger, fear, and helping, avoidance, coercive, and segregating behaviors. All participants read a vignette about a man with schizophrenia. Half of participants received no explanation for the disorder; 25% of participants read that drugs were the cause of the disorder (under his control); and 25% of participants read that it was due to an injury in an accident (out of his control). Vignettes also varied whether or not the man was considered dangerous.

Several findings emerged. In terms of familiarity, Corrigan et al. (2003) found that people who were more familiar with mental illness were more likely to report pity and less likely to report fear and anger than those who were less familiar with mental illness; those who were familiar with mental illness were also more likely to help and less likely to endorse the use of coercion or segregation than those who were less familiar with mental illness. Participants who were more familiar with mental illness also reported they would engage in fewer discriminating behaviors and were more likely to feel badly for the man in the vignette and less likely to feel angry or afraid than the

participants who were less familiar with mental illness. Additionally, the majority of participants reported that if the cause was under the control of the man in the vignette, he was more responsible, but if the cause was out of his control, he was less responsible. Observed effects for the cause of a disorder, as defined by being within or outside of someone's control, were mediated by these beliefs in the individual's responsibility for having the illness. When the cause was within someone's control, the individual was considered more responsible, and participants reacted with fewer helping behaviors and more behaviors involving coercion and segregation than when the cause was considered outside of someone's control. A belief in responsibility decreased feelings of pity and increased anger and fear. In summary, this study found that both people's familiarity with mental illness and causal explanations of disorders have an effect on mental illness stigma and people's responses to individuals with mental illness.

These two studies contributed to research attempting to explain mental illness stigma by examining multiple predictors, and testing models that incorporate multiple predictors. A prominent variable in both studies was familiarity with mental illness. They concluded that familiarity with mental illness was related to lower stigma as demonstrated by less social distance, and fewer discriminating actions. Familiarity with mental illness was also related to less fear, which suggested an ability to work with a person with mental illness. Participants perceived people as less dangerous if the participants were familiar with mental illness (Corrigan et al., 2001). Corrigan et al. (2003) also found that familiarity with mental illness was correlated with a variety of effects, including a greater feeling of pity and likelihood to help along with less fear and anger and a lower likelihood to use coercions, segregation, or other discriminating

behaviors. Although these studies investigated college students' perceptions of adults with mental illness in the community, their findings are likely relevant for a variety of other conditions, including teacher perceptions of students with mental illness. Teachers are also likely to vary in their knowledge and familiarity with mental illness, which can impact how individual teachers would react to and judge students with mental illness. Familiarity is just one factor that can affect stigma against mental illness.

The Influence of Labeling on Stigma.

Researchers who study mental illness stigma have also examined the effect of labeling people with mental illness as "mentally ill," as "mental patients," or even simply labeling them with diagnostic labels (e.g., "Major Depression," "ADHD") on stigmatizing attitudes and behaviors in those without mental illness. The research in this area has yielded mixed results. Some results suggest that labels lead to negative effects and stigma from other people. Conversely, other research and many mental health professionals advocate the use of labels and the positive results they can yield. Potential positive effects include more positive perceptions of those with diagnostic labels and an increased likelihood to help people with a diagnosis of a mental disorder (Wadley & Haley, 2001).

In a review of literature about clinical diagnoses, Corrigan (2007) concluded that diagnostic labels exacerbate the experience of stigma by individuals with mental illness. In his view, others perceive people with a diagnosis of a mental disorder as a member of a different group, which makes people who are not members of this group less likely to believe that those with mental illness will be able to recover. The belief that people with mental illness belong to another group also leads others to perceive them as homogenous,

or all the same. This stigma is likely to undermine the quality of life of people with mental illness because it can lead others to distance themselves or fear the person with mental illness, and stigma can lead some people with mental illness to avoid pursuing treatment to avoid receiving a label. Individuals with mental illness may not want this label, or the ensuing prejudice, because they are afraid of what others will think, and perhaps because they feel that they should be able to solve their own problems. This latter consideration is a form of self-stigma; an additional consequence of the stigma that people experience from mental illness is that they can internalize the stigma and begin to have these negative thoughts about themselves. Corrigan (2007) also acknowledged that a diagnostic label could at times have a positive effect; it can lead clinicians to be able to better describe patients and predict the course of their disorders.

In 1982, Link completed a study to examine the effects of being labeled as a mentally ill patient on work status and income in an attempt to assess the interpersonal consequences of labeling. Psychiatrists interviewed a sample of patients, and in the interviews, they assessed the participants' degree of impairment, probability that they experienced psychopathology or were a psychiatric case, their income, and their work status. Link (1982) found that participants who were in the patient group had significantly lower income than did those in the non-patient group. Results also indicated that members of the patient group were significantly less likely to hold a job than were members of the non-patient group. Both results indicate negative effects of labeling, and in the discussion of results, Link (1982) argued that the label exacerbated the status of being a patient because the psychiatric impairment level of participants without the label of patient only had a modest effect on their income and work status.

The results of Link (1982) demonstrated a negative impact of labels in mental patients' lives.

Although the findings of Link (1982) were important in demonstrating the stigma experienced by those who were mentally ill, it was not experimental in design, which meant that there was a correlation between a psychiatric label and a lower likelihood to hold a job and lower income, but Link (1982) could not claim that the label of being a patient caused these results. Socall and Holtgraves (1992) used an experimental design, so that they could truly measure the effects of different labels. In their attempt to measure social reactions to people with specific mental illness labels, Socall and Holtgraves (1992) contacted members of a community with a mail survey. The participants began by reading one of 6 vignettes, with 3 pairings that matched behavioral symptoms of a mental illness and physical illness. Anxiety was paired with a food allergy, schizophrenia was paired with a brain tumor, and depression was paired with medication side effects. The vignettes also varied in terms of the severity of the illness. Participants answered questions about their willingness to interact with the person, belief in the outcome or prognosis of the person's problems, belief in the predictability of the illness, and their social rejection of the person. Participants were significantly more likely to reject people with the mental illness when compared with the physical illness; participants were also more likely to reject those whom they believed were suffering from more severe illness than those whose illness they perceived to be less severe. People with mental illness were seen as less predictable and having a more negative outcome than were people with physical illness; people with more severe illness were also seen as less predictable and having a more negative outcome than those who were rated with a

lower severity level. Researchers found that social distance was significantly negatively correlated with beliefs about outcome and predictability. When controlling for participants' beliefs about mental illness, the label of mental illness compared with the label of physical illness continued to have a significant effect. The findings of Socall and Holtgraves (1992) implied that a mental illness label leads to negative social outcomes when compared with a label of physical illness.

The summary of findings by Corrigan (2007), the results of Link (1982) and Socall and Holtgraves (1992) indicate that the use of labels leads to negative social outcomes when compared to groups with no label or a matched label. In some cases, the label exacerbates the negative outcomes that come from behaviors and symptoms alone. Although these findings suggest that labels lead to negative consequences for people with mental illness, Corrigan (2007) noted that labels could have positive effects, such as clinicians being able to better help patients. Other researchers have found some additional positive or neutral outcomes that can occur with diagnostic labeling.

In 1980, Fernald and Gettys reported two studies in which they investigated the effect of diagnostic labeling on people's perceptions of the people described with labels. In the first study, they presented 96 college students of psychology with videotapes of diagnostic interviews, which presented a clinician's findings and treatment recommendations for a child. To vary the independent variable of diagnostic label, one of the two groups saw a video in which the clinician repeatedly mentioned a "specific learning disability in the language area," whereas the other group saw one without such a diagnostic description. This type of diagnostic description is more specific to an educational setting when compared with a general diagnosis of mental illness. Following

the video, participants were asked to answer questions to assess the closure they felt, which represented relief from understanding the child's problems, the prognosis and future expectations of the child, and whether the child had desirable traits. The significant finding was that the group members that saw the video presenting the diagnostic description felt that they better understood the nature of the child's problems compared with the videotape without a diagnostic description.

The second study in the same paper by Fernald and Gettys (1980) consisted of mailing questionnaires to 178 parents who were recruited through child service agencies to assess whether or not their child had a clinical label and their perceptions of the child. Forty-eight questionnaires were used in results. Of the parents who participated in the study, the majority had children who had received a diagnostic label (81% of participants) and these labels described a variety of different disorders (Fernald & Gettys, 1980). The questions in this study were designed to measure closure and understanding of the child's problems, acceptance and favorable perceptions of the child, and prognosis. Results revealed that participants whose children had a diagnostic label had a significantly greater sense of closure and understanding of the child than did those whose children did not have a diagnostic label; these participants with children who had a diagnostic label were also significantly more likely to report greater acceptance and positive perceptions of their children than those whose children did not have a diagnostic label. The findings of this study are limited in the sense that they are from correlational data, and, therefore, the researchers could not conclude that the use of a diagnostic label to describe a child caused this greater understanding and more positive perceptions.

Both the videotape study and the surveys of parents (Fernald & Gettys, 1980) revealed that the use of diagnostic label was not related to a more positive prognosis of the child. However, both studies suggest that the use of a diagnostic label allowed others to better understand the nature of the problems, and the presence of a label was correlated with an increased positive perception of the children in one study.

Angermeyer and Matschinger (1996) also sought to investigate the positive effects of labeling for individuals with mental illness. They suggest that from the clinical perspective, labeling can decrease other people's uncertainty about a condition; in addition, role theory asserts that if a mental illness is seen as a biological or medical illness (which can be facilitated by diagnostic labeling), people do not blame the patient or the family. To assess the hypothesis that a diagnostic label will increase beliefs in biological causes and decrease beliefs in psychosocial causes, the researchers surveyed German citizens at random. The participants all read a vignette about a person with schizophrenic behaviors; some participants read vignettes that contained a diagnostic label of schizophrenia whereas others did not. They then rated the probability that behaviors were due to 15 different causes and answered questions about the prognosis of the person. Overall, the unlabeled vignettes were significantly more likely to be explained by psychosocial stress, family environment, lack of will (personality), and exaggerated demands on self (personality) than were the labeled vignettes. There was an interaction effect of age and label on biological explanations, with people under 65 being more likely to endorse biological explanations for the problems when accompanied with a label than with the unlabeled vignette. There was also an interaction effect between gender and label on biological explanations; women were more likely to suggest that the

cause of the behaviors with the diagnostic label was biological than when no label was given. As evident in these results, the presence or absence of a diagnostic label can have a significant effect on people's causal explanations of symptomatic behavior. This finding is important because biological explanations are associated with less stigma from others as demonstrated by more helping behaviors when compared with more psychosocial explanations for disorders (Corrigan et al., 2003). Thus, it seems that labeling may indirectly lead to decreased stigma through its influence on people's perceptions that mental illness is a biological disorder. However, the study by Angermeyer and Matschinger (1996) did not prove a reduction in stigma, only the link to biological causes.

In 2001, Wadley and Haley continued the work of these authors in attempting to determine whether labels have a positive or negative effect. To do so, they provided female undergraduates with hypothetical vignettes about their mothers or fathers; these vignettes all described the same bizarre behaviors, but varied by having a diagnosis of Alzheimer's Disease, Major Depression, or no label. Both the label of Alzheimer's Disease and Major Depression were described as having a biological cause. The authors also varied whether the vignette described behaviors that were typical of the parent at that time compared with whether the behavior was abnormal for the parent. Following the vignettes, the participants answered questions to assess their emotions, attributions, and helping behaviors toward the parent on Likert scales. They also answered questions to assess the participant's relationship with that parent, belief in the causes of various disorders including Alzheimer's Disease and Major Depression, and how much control they believed the parent in the vignette to have.

The participants in Wadley and Haley (2001) believed that Alzheimer's Disease and Major Depression were significantly different in terms of their causes; participants believed that Alzheimer's Disease was significantly more biological in terms of origin than was Major Depression, which they believed to have a greater psychosocial cause. Participants reported being significantly more angry toward parents without a diagnosis than parents with a diagnosis of Major Depression, and more anger toward these parents with no diagnosis or one of Major Depression than parents with a diagnosis of Alzheimer's Disease. Participants endorsed higher levels of sympathy toward parents with Alzheimer's Disease than toward those with Major Depression, which they were significantly more sympathetic toward when compared to parents who did not have a diagnostic label.

Overall, Wadley and Haley (2001) found that the diagnosis of Alzheimer's Disease was thought of as a biological disorder and participants responded to this group with greater sympathy, less anger, less belief in responsibility of the individual, less belief in personality contributions, and greater willingness to help than to the parents identified with Major Depression or no diagnosis. Participants believed that Major Depression was caused by more psychosocial factors when compared with Alzheimer's Disease; it also elicited greater sympathy, less anger, less belief in responsibility of the individual, less belief in personality contributions, and a greater willingness to help than did the vignettes with no diagnosis.

Within the participants who read vignettes about their fathers, they attributed significantly more control to the father in the category without a diagnosis than to those with a diagnosis of Major Depression, for which they attributed more control than for

those in the Alzheimer's Disorder condition. Within the participants who read about their mothers, they believed their mothers to be significantly more likely to be able to control their behaviors in the no label and Major Depression groups than in the Alzheimer's Disorder group. In terms of helping behaviors, participants were significantly more likely to take a 2-week vacation with their parents with Alzheimer's Disorder than with the parents with Major Depression or no diagnosis. Participants were significantly more likely to move in with parents with Alzheimer's Disorder or Major Depression than was true for parents with no diagnosis.

Wadley and Haley (2001) argued that the use of a diagnostic label reduced trait inferences, which meant that participants saw the accompanying behaviors as part of the disorder rather than characteristic of their parents. The findings of Wadley and Haley (2001) suggest that use of diagnostic labels can lead to increased sympathy, less anger, and more helping behaviors by offering an explanation for difficult behavioral symptoms when compared with groups without diagnostic labels. These findings nicely complement the findings of Fernald and Gettys (1980), which also suggested some positive outcomes of labeling.

One of the theories about the positive outcomes of labeling stemmed from the idea of preventative disclosure. Preventative disclosure is the concept that if people with mental illness disclose their condition to others in certain situations, it can reduce others' stigmatizing attitudes and potentially increase the benefits for the person who discloses it. In this case, people self-label as a method to avoiding others' misperception of their emotional and behavioral symptoms. Jastrowski, Berlin, Sato, and Davis (2007) explored the effect of preventative disclosure of people with ADHD on the variables of social

rejection and potential benefit from seeking treatment. They also examined whether the type of ADHD, inattentive type or hyperactive/impulsive type, had an effect on these dependent variables. The participants in this study were young adults, with two thirds of the sample being undergraduate students. They were presented with a vignette that varied on whether or not subjects disclosed that they had ADHD and the type of ADHD they had. After reading one of the vignettes, participants answered questions to assess their socially rejecting attitudes and whether they believed the individual in the vignette could potentially benefit from treatment. When the individual in the vignette disclosed that he/she had ADHD, participants reported significantly fewer rejecting attitudes toward the participant and were more likely to believe that the individual would benefit from treatment than when the individuals in the vignette did not disclose their disorder. Disclosure or self-labeling had a large effect on decreasing socially rejecting attitudes, underscoring the possible positive effects of labeling, at least under certain conditions. The study implies that it could be helpful for young adults with ADHD to disclose the nature of their mental illness to some people because it can lead to interpersonal benefits. The authors suggest that more studies like this should be completed with different disorders, and that they should be replicated in true naturalistic settings to make the findings more generalizable.

Together, these studies presented a different outcome of labeling than that described by Corrigan (2007), Link (1982), and Socall and Holtgraves (1992). These findings suggested that diagnostic labels help others feel that they understand the people's symptoms, influence them to hold more positive perceptions of the person (Fernald & Gettys, 1980), indirectly reduce the feelings of interpersonal stigma due to

biological explanations (Angermeyer & Matschinger, 1996; Corrigan, 2007), lead to greater sympathy and helping behaviors (Wadley & Haley, 2001), and result in fewer rejecting beliefs accompanied with a greater belief that treatment could be helpful (Jastrowski et al., 2007) when compared to groups of people who were not labeled or did not disclose the nature of their disorder. In the case of students in school settings, the results suggest the possibility that diagnostic labels might lead to a greater understanding of a child's problems, less stigmatizing attitudes and behaviors, and greater accommodations than unlabeled children.

The Effects of Labels on Teachers.

Some research has been completed to study how labels affect teachers and professors, with most studies focused on members of multiple professional groups to directly compare teachers to others. These studies are frequently completed with teachers responding to students with different labels and being asked about how they would treat and handle such a student in their classroom.

Fairbanks and Stinnet (1997) contacted three different professional groups to assess the effects of group membership, intervention type, and diagnostic label on the acceptability of the treatment. The participants in this study were teachers, school psychologists, and social workers. Participants were presented with vignettes that all contained the same description of disruptive behavior. To study the influence of diagnostic label, they used three different labels with the same behavior over three vignettes: Learning Disabled, Behavior Disordered, or Attention Deficit Disorder (ADD). Participants rated the acceptability of several proposed interventions including a positive one, a token economy and praise, or a negative one involving praise but with time out as

a positive punishment. To assess the acceptability of these interventions, participants evaluated them on the Intervention Rating Profile-15 (IRP-15). Overall, teachers rated the negative intervention as more acceptable than did school psychologists and social workers. Teachers may be more apt to utilize a negative intervention because they are more directly exposed to and affected by the disruptive behavior compared to school psychologists and social workers. More importantly, the type of diagnostic label had no effect on the acceptability of an intervention. Fairbanks and Stinnet (1997)'s findings suggest that teachers are not heavily influenced by diagnosis, and instead base their intervention choice on the behavioral description provided. Perhaps teachers are more immune to the influence of diagnostic labeling (both positive and negative) because it is not how they conceptualize child behavior problems, instead focusing on the behaviors that present an immediate challenge in the classroom. More research is needed to investigate this possibility.

In another study attempting to assess the effects of diagnostic labels and professional group membership on perceptions of children with emotional and behavioral difficulties, Fox and Stinnet (1996) focused on predictions of children's classroom behavior, their relationships, and judgments of their prognosis. Researchers presented vignettes containing the same behavioral description of a male child and one of four diagnostic labels to school psychologists, regular education teachers, special education teachers, and introductory psychology students. The diagnostic labels that were presented were conduct disorder, socially maladjusted, seriously emotionally disturbed, or no exceptionality, which signified no disorder. The questions assessed the child's likely interpersonal problems, likely behavior disruptiveness and difficulty, and likely

overall prognosis. Type of profession had no effect on any of the three measures of the child's prognosis. The type of label only had a significant effect when assessing the child's likely interpersonal problems; specifically, the hypothetical boy labeled as seriously emotionally disturbed was predicted to experience significantly more interpersonal problems than the same boy with a label of no exceptionalities or conduct disorder. The researchers argued that the externalizing behavior had a greater effect than the label itself because the labels only had a modest effect on the professionals' predictions about classroom adjustment, and had no effect on judgments of prognosis. This study's generalizability was limited because Fox and Stinnet (1996) only analyzed participants' responses if they agreed that the boy's diagnostic label matched the behavioral description. This match happened only for a small percentage of participants. Despite this limitation, this study along with the study by Fairbanks and Stinnet (1997) suggests that teachers and school professionals may be less strongly affected by diagnostic labels than other individuals are. However, it is important to note that they only examined a narrow range of behaviors and attitudes that a diagnostic label could influence, and that a more direct and thorough investigation of the influence of labels on stigmatizing attitudes and behaviors in teachers is needed.

In 2011, Ohan, Visser Strain and Allen continued this trend of comparing professional groups when they published a study to assess elementary school teachers' and education students' reactions to behavioral descriptions of students with and without the diagnostic label "ADHD." Reactions of teachers were assessed on multiple dimensions: perceived seriousness of the behavior problems, disruption to the classroom, disruption of friendships; participants' willingness to put in extra time and effort to help

professionals implement learning assistance, medication, or classroom-based behavioral strategies; how bothered or upset, confident, and stressed participants would feel by the behavior depicted in the vignette; how likely participants would be to intervene with the child's behavior problems and put in extra time and effort to help the child in the classroom. To elicit reactions from the teachers, they were presented with 4 vignettes describing students with combined-type ADHD, and to vary the independent variable of diagnostic label, they presented the same 4 vignettes but with a diagnostic label included; each participant saw one of the 8 total vignettes. After reading the vignette, participants answered 11 questions to measure their reactions to the vignette on the previously mentioned dimensions. The vignettes presented similar female and male names and presented each gender an equal number of times.

Ohan et al. (2011) found that the inclusion of the ADHD diagnostic label in the description had a significant effect on teachers' and education students' reactions to the vignettes; some of this effect was positive, while some of it was more negative. When teachers read the vignettes with the ADHD label, they were significantly more willing to take extra time and effort to help other professionals implement treatments than when the teachers read the vignettes without the ADHD label. Interestingly, the ADHD label did not increase participants' willingness to take extra time and effort on their own. Additionally, participants rated the child's problems as more severe in the vignettes with the ADHD label when compared with the vignettes without the ADHD label. The vignettes with the ADHD label led to more negative perceptions of the child and decreased confidence in their ability to teach the child than did the vignettes without the ADHD label. The only effect for gender of the target was that teachers and education

students felt less confident handling the problems from a girl when compared to a boy. Related to the concept of familiarity discussed earlier, prior experience of teaching and specific training focused on helping students with ADHD had a moderate effect in predicting teacher willingness to implement accommodations; it seemed that teachers who had received training were willing to implement programs to help children with symptoms of ADHD, regardless of whether or not they had the diagnosis. Interestingly, increased training with ADHD meant that the diagnostic label had a greater negative effect on teachers' emotional reactions than for teachers without training. This study was completed in New Zealand where there are no regulations requiring interventions for students with ADHD, and therefore, the participants' willingness to assist likely reflected their actual altruism toward the description and not just the actions required by their job. This research suggests that the label of ADHD can help students gain support from educators, but that those benefits do not come without the risk of negative feelings about the student and about the teachers' ability to handle him, and especially her. It was notable that participants were more willing to aid others in helping the students rather than dedicating their own time and effort. Ohan et al. (2011) suggested this pattern could potentially be caused by a lack of training and confidence in managing student problems.

In the discussion of limitations and potential directions for future research, the authors suggest that studies assessing the effects of labels need to be completed with teachers of different levels of education and a more gender-balanced sample; the participants of this study were nearly 90% female. The findings from Ohan et al. (2011) provide insight into the effect of a diagnostic label of ADHD in a vignette on elementary teachers' and education students' impressions and actions toward students; it revealed

some helpful and some damaging effects that labeling can have when used in an educational context. It suggested that the teachers in the present study may have more negative perceptions of the vignettes with diagnostic labels than of those without the labels, and although the teachers may want to implement more teaching accommodations, they may not feel that they would be capable of doing so.

The results of these studies that examined the effects of labels on teachers suggested that in some cases, it may have been the behavior or the symptoms of the child that have a greater effect on the teacher, as suggested by Fairbanks and Stinnet (1997) and Fox and Stinnet (1996), when compared with a label condition, but these were studies in which the same behaviors were explained by a variety of labels. In Ohan et al. (2011), where they studied the effects of just the label of ADHD, they found that the label had significant effects on the teachers' responses. Although these present as mixed results regarding labels' effects on teachers' responses to students, the differences may lie in the labels used; when the study focused on one disorder, the label yielded different results when compared with behaviorally matched conditions; these discrepancies also could have occurred because Fairbanks and Stinnet (1997) and Fox and Stinnet (1996) used the same behavioral description to explain a variety of disorders. It is possible that some disorders' labels cause a different extent of reactions in teachers when compared with other disorders, which is why it is necessary to compare disorders. Although results seemed mixed, there are plausible explanations to the variations in findings, which could be clarified with future studies.

As evident from the literature presented, labeling may have a variety of effects. It can potentially lead to stigmatizing beliefs, but labels can also lead to the utilization of

interventions and an increased access to treatment. Despite the many studies that suggest that labeling somebody with a mental illness leads to negative stigma from others along with other difficulties, there were findings that labels can lead to more positive outcomes for an individual; these included help from others and a framework with which other people could better understand the behaviors of an individual. Hinshaw cautions, “the potential benefits of obtaining a diagnosis in order to justify services must be weighed against the potential for stigmatization that could attend to the label” (Hinshaw, 2007, p. 186). People should consider the potential costs and benefits of using a label for an individual (or for themselves) before deciding whether to use it, as well as where and with whom they should use that label. The current thesis aimed to assess the use of a diagnostic label on teachers' perceptions of students and on their willingness to implement accommodations for them. The findings will hopefully contribute to this existing research and help students and parents in their decision about whether or not to disclose a diagnostic label.

Mental Illness in the Classroom

Schools are where children and adolescents gain the tools they need to succeed in life; schools are also a place where students with mental illness can experience stigma from peers. In addition to stigma that students can experience, they may also face additional challenges academically due to their mental disorder, such as difficulty concentrating. Teachers and schools have made efforts to help students with mental illness, including systemic (e.g., education campaigns) and individualized (e.g., changes for the individual student) approaches. The changes for the individuals are known as accommodations, and they can be implemented in a variety of ways. The following

section begins with a discussion of the mandatory accommodations in American public schools. It then discusses accommodations for mental illness in various settings, and how educators feel about and have used these accommodations.

American Laws on Accommodations.

Public schools in the United States are required to provide students who have a disability [defined as a learning disability, emotional disorder, or other health-related condition that compromises school performance (Hinshaw, 2007, p. 185)] with accommodations through an individualized education plan. This action is mandated by The Individuals with Disabilities Education Act (IDEA), which requires all *public* institutions to create supportive learning environments for those with disabilities; these accommodations can be based around the specific needs of a student's Individualized Education Program (IEP) (DBTAC Southwest ADA Center). The goal of an IEP is to provide individuals with reasonable objectives and accommodations to meet these goals with a system to monitor progress (Hinshaw, 2007). IEPs are individualized to meet the needs of the student, and therefore, can help a student reach educational goals. These same requirements are not in place in private schools.

The Americans with Disabilities Act (ADA) requires that “public and private institutions must provide both environmental and interpersonal supports that assist the person with disabilities to function successfully and enjoy the full range of social opportunities” (Corrigan, Markowitz, & Watson, 2004). The ADA is helpful for students with mental illness but they may be unaware that they qualify for disability accommodations for their mental disorder, especially in the early stages of its development; mental disorders are also hidden disabilities, which make people less likely

to recognize them. Students at private schools do not have the guaranteed incentive of accommodations via IDEA for disclosing their mental illness or could be unaware of potential benefits academically; for that reason, many students may choose to not share their situation due to fear of the stigma that can accompany labeling mental illness (Link, 1999). The following section presents what accommodations are and why people with mental illness are entitled to them; it then presents some studies on accommodation use for students with mental illness.

Specific Accommodations for Students with Mental Illness.

Accommodations can provide important changes to educational practices for students with mental illness. They can allow students with mental illness to learn to the best of their ability by making changes to normal classroom practices and expectations. There are various changes that can be made, and different accommodations are of greater help to some students than to others based on each individual's needs.

In a paper for the Disabilities, Opportunities, Internetworking, and Technology (DO-IT) Center at the University of Washington, Souma, Rickerson, and Burgstahler (2006) identified people with mental illness as having a hidden disability and argued that mental illness can interfere with education goals. One of the reasons that mental illness can be so challenging for people is that it is hidden, and so others may not realize the challenges that people with mental illness face. Ways that mental illness can interfere with educational goals of students include, but are not limited to, difficulties related to medication use and side effects, difficulty screening out environmental stimuli, difficulty sustaining concentration, difficulty maintaining stamina, challenges handling time pressures and multiple tasks, challenges interpersonally, fear of teachers, difficulty

responding to negative feedback, challenge of responding to change, and experience of severe test anxiety.

Souma et al. (2006) emphasized that to help these students, teachers should create accommodations, which are the removal of impediments to learning of that student, whether this change be something in addition for the student, an alteration for a student, or the removal of challenges for said student. Souma et al. (2006) emphasized that accommodations must be reasonable, meaning that they cannot pose a risk to others, cannot greatly alter the coursework, and cannot cause a financial or administrative burden to the school. Mental illness is a hidden disability; for that reason, teachers may not be aware of it and, therefore, may not understand the symptoms and behaviors of a student. Unless students disclose that they have a mental illness or are assessed for one, a teacher will not know to provide accommodations, which may be different than other more visible disabilities. Souma et al. (2006) provide an excellent explanation of the reasoning for accommodations.

In an effort to increase the awareness of the rights and needs of students, Rickerson, Souma, and Burgstahler (2004) stressed the importance of accommodations within the broader context of changes to the academic environment that can help students with mental illness. They also argue that the hidden nature of mental illness creates a reluctance to seek accommodations, especially because of the fear of experiencing stigma. Students with mental illness face challenges in securing reasonable accommodations because it is difficult for a teacher and student to agree on a proper accommodation, and because the student may not want to disclose the full nature of his/her disorder. It is important to note that it is not the mental illness that qualifies students for an

accommodation, but it is the deficit or limitation that students experience as a secondary effect of the mental illness that qualifies them for accommodations. For example, a diagnosis of Major Depression would not qualify a student for an accommodation, but the trouble concentrating may make a student eligible for an accommodation. Yet, without an underlying condition, a student would not qualify for accommodations solely on the basis of such behavioral difficulties.

The goal of accommodations is to create equal access for students with mental illness that help compensate for their deficits. In terms of receiving accommodations, Rickerson et al. (2004) report that it is the responsibility of the student to register a disability and request accommodations; then, cooperation of the student, teachers, and a representative from the Office for Students with Disabilities is the ideal way to create and implement an effective accommodation. Accommodations should create a level playing field for this student and others, but the teacher must also maintain privacy about the student's disability. To ensure the success of the accommodations, there should be meetings to discuss feedback about any changes or, as Hinshaw (2007) suggested, another system to monitor progress.

Together, Souma et al. (2006) and Rickerson et al. (2004) with some support from Hinshaw (2007) provide an excellent background to understanding what accommodations are. The next question is what do people think about them and how are they used. Much of the research on accommodations has been completed at the elementary school level because this is often when students are first identified and receive accommodations. There is an additional body of research at the college level because of growing interest in what happens to students who need accommodations when they transition out of the

safety net of their public schools. The college literature is especially relevant to the present study, because colleges, like private high schools, are not bound by IDEA regulations. Of course, both colleges and private high schools are required to provide appropriate accommodations through ADA, and in both cases, this likely requires some level of individual initiative and negotiation. Thus, the college accommodations literature will be reviewed, and then discussed in terms of its applications to private high school settings.

Hindes and Mather (2007) assessed students' and professors' attitudes towards inclusion, assistance, and accommodations at a Canadian college. They framed their study in terms of the problems of equity and excellence of students. They considered the cost for other students when professors help those with mental illness, specifically the possibility that peers in the classroom could be negatively affected by diverted attention. They also considered the fact that it is the teacher's job to ensure that everyone in the classroom is learning. Hinder and Mather (2007) contacted college students and professors using an online survey, which assessed changes that could be made for students with sensory, language, motor, attention, and psychiatric disabilities; the changes were inclusion, assistance (such as a different format of exams or extra time), and professorial accommodation (such as auditory books, shorter lectures for that student, or alternative assignments). Questions also assessed whether participants believed that students or the government should be responsible for financing the changes. Twenty-nine percent of students and 41% of professors had a disability or knew someone with a disability.

Professors rated inclusion of students with disabilities as significantly more positive than assistance and professorial accommodations for student. They also rated students with motor, sensory, and language disabilities as more positive than they did those with attention or psychiatric disabilities; professors were more likely to make an effort for students with sensory and motor disabilities than they were for those with language, attention, or psychiatric disabilities. Students rated inclusion and assistance as more positive than professorial accommodation. Like professors, they rated people with motor, sensory, and language disabilities more positively than they did those with psychiatric and attention disabilities. Female participants were more likely to give positive ratings than were males. Professors were more likely than were students to rate inclusion as positive, but they were less likely than were students to rate professorial accommodations positively. Both groups thought the costs of such changes should be split between the student and the government. Interestingly, participants who had or knew someone with mental illness rated assistance and professorial accommodations as more negative than did those who did not. This finding contrasts with prior findings on the positive effects of familiarity on mental illness attitudes (e.g., Corrigan, 2001). Overall, these findings suggest that the students and professors at this university had a negative view of students with psychiatric and attention disabilities, and the results suggested that they would not be supportive of accommodations for these students.

College students with mental illness were also the population of interest in Salzer, Wick and Rogers (2008); their focus was not on attitudes towards accommodations like Hindes and Mather (2007), but on the actual use of accommodations at the college level. Specifically, Salzer et al. (2008) examined the changing use of accommodations between

current and former college students. They began their paper by reporting some facts about college students with mental illness. They found that most college students with mental illness received support from their teachers in college without utilizing the formal process of registering with the Office for Students with Disabilities. It also was found that many college students with mental illnesses withdraw. Salzer et al. (2008) hypothesized that there is an increase in awareness of resources and accommodations, an increase in formal requests for accommodations, and an increase in use of Office of Student Disabilities (OSD) in current college students when compared with former college students. The online questionnaire assessed former and current college students' familiarity with accommodations, how often they used disabilities services, and if they had requested or received accommodations. If students had not received accommodations, they were asked why they had not pursued them; if participants had used accommodations, they were asked a question about their challenges in requesting and receiving accommodations. Participants then rated various assignment, classroom, and examination or grading accommodations for whether or not they had received them and how helpful they had been.

Salzer et al. (2008) found that participants who had left college longer ago were significantly less familiar with accommodations, less likely to have requested or received accommodations, and less likely to use the Office of Student Disabilities than were participants who left college more recently. There was a correlation between participants' familiarity with accommodations and their use of the Office of Student Disabilities. Participants who used the Office of Student Disabilities received twice as many accommodations compared to the participants who did not use the office. Participants

who had diagnoses of Bipolar Disorder, Major Depression, and schizophrenia did not differ in likelihood of formally seeking accommodations. Participants who were on medication to treat their mental illness were more likely to request accommodations than those who were not. When current students did not request or receive accommodations, they explained that did not feel that they needed them, whereas former students who did not request or receive accommodations reported being unaware that accommodations were available. Of all students who did not request or receive accommodations, 30% did not want to disclose their mental illness to their teachers, 30% feared being stigmatized by their teachers, 20% feared being stigmatized by peers, and 19% did not want to disclose their mental illness to their peers. Of those who received accommodations, 56% were embarrassed about disclosing to faculty, 56% feared stigmatization from the faculty, 42% felt that faculty were unresponsive, 37% did not feel that they knew what reasonable accommodations would be, 31% felt there was miscommunication with the faculty, 27% faced challenges with documentation, and 8% had trouble paying for the accommodations.

The findings from Salzer et al. (2008) reveal much about accommodation use in post-secondary education. The increased use of the Office of Student Disabilities and accommodations are positive, showing that students are now more likely to receive help and know about sources of help than in the past. Anticipated stigma from professors and peers were two factors that prevented college students from attempting to receive accommodations. These findings are not only important to understanding mental illness awareness and accommodations in college settings, but also for hypothesizing what factors might be important in the less commonly studied setting of the private high school.

In both settings it is the student's responsibility to seek out help, although the high school student may have more active and direct support for this from family members with whom they are living than is true for college students who are not living with their families. Also, in both settings, it appears to primarily be up to the individual professor's/teacher's discretion what accommodation to implement as college students often did not use the Office for Students with Disabilities, and private high schools may not have such an office to coordinate faculty accommodations.

These college studies illustrate the benefits of studying mental illness accommodations in school settings where accommodations may be less readily available, and of studying a broad range of possible accommodations to learn more about teacher perceptions of acceptability. The current investigation used the accommodations from Salzer et al. (2008) to study mental illness perceptions and accommodations in private high school settings.

Becker et al. (2002) also assessed the use of accommodations for students in the post-secondary setting. They mailed a questionnaire to the students and faculty at a university to assess the following variables: identification of mental illness in others, ability to work with students of mental illness, confidence in referring people to mental health services, factual knowledge of mental illness, and expectations of people with mental illness to succeed or fail. For the faculty, they assessed their likelihood to make referrals and accommodations. Becker et al. (2002) found that faculty's confidence in identifying mental illnesses, perceived ability to intervene, and fear and perceived dangerousness of student were predictors of the likelihood of faculty making accommodations. A high percentage (96%) of faculty members agreed that mental

illness was a serious problem requiring specialist attention. Only two-thirds of the faculty (67%) felt they could differentiate mental illness from students simply being upset, and a large majority (81%) of faculty believed that students with mental illnesses could succeed in their pursuits. About two-thirds of faculty (65%) would discuss concerns with students; 63% believed they could convince students to seek help with 51% of faculty believing they could convince them to seek help outside of campus services. The faculty members who were familiar with services were more likely to discuss concerns with students and convince them to seek help than were the faculty members who were less familiar with services.

The faculty who participated in Becker et al. (2002) acted in ways that suggested some were fearful of students with mental illness; 50% reported some form of social distance from students with mental illness, 8% thought students with mental illness were dangerous, and 5% believed that students with mental illness should be in other classrooms. The findings of this study suggested that faculty were more aware of counseling services than were the students who participated. Although faculty in the post-secondary setting were fearful of students with mental illness and thought some to be dangerous, the results of the surveys suggested that faculty were implementing accommodations frequently to help students with mental disorders; some faculty were taking more steps to help their students, including discussing their concerns and referring students to other resources to help with their problems.

When asked about accommodations a professor had given or students had received, the most common accommodation was an extended deadline (86%), and four-fifths of teachers had given students extra time during exams. Only 11% of faculty

allowed students to be exempt from an exam. In terms of referrals, 65% had referred students to campus services, 46% to outside services, and 32% to the Office for Students with Disabilities. A positive finding was that only 3.8% of faculty had not made an accommodation for students. About half of faculty members expressed fear and discomfort with teaching students with mental illness, and they made fewer referrals and accommodations than did other faculty members. The greatest predictor of accommodations and referrals was the faculty's belief in their student's abilities. Caution should be used when interpreting the percentages of referrals and accommodations for students with mental illness because between one-fifth and one-fourth of participants did not answer at least some questions in this study. The findings of Becker et al. (2002) demonstrated that the majority of professors are making accommodations for students with mental illness. This study suggests that teachers in private high schools may also be likely to help students with mental illness, and that faculty are likely to have positive perceptions of the students with mental illnesses' future, but the teachers may still be uncomfortable teaching students with mental illnesses, be afraid of these students, or believe that the students with mental illness are dangerous. Private schools have the additional issue of tuition, and this may in fact lead teachers in private schools to act more responsive than the teachers in public schools.

There are many possible changes to educational practices that can be made to facilitate the education of students with mental disorders. In terms of accommodations, there have been mixed findings. The negative findings reported were those of Hinder and Mather (2007) that suggested that both professors and students viewed attention and psychiatric disabilities as more negative than motor, sensory, and language disabilities.

However, these are counter-balanced with results like Salzer et al. (2008), which suggest that current students are utilizing resources at a greater rate than are former students.

Becker et al. (2002) also found that professors were likely to help students with mental disorders, and that those professors who were more familiar with mental illness were more likely to help compared with professors who were less familiar with mental illness.

The present research attempted to assess which accommodations teachers would implement in a hypothetical situation for high school students with the behaviors and diagnosis of ADHD or Bipolar Disorder.

The Disorders Studied in the Present Study

The following sections will examine the common presentations of ADHD and Bipolar Disorder in children and adolescents to help lay the foundation for the present investigation. Bipolar Disorder is being more frequently diagnosed in these younger populations than in the past, which is why it is important to study teachers' opinions and reactions toward students with this diagnosis. This section will also present relevant research demonstrating that the overwhelming majority of studies about ADHD are completed in male populations and that Bipolar Disorder and ADHD frequently occur together in children and can also be misdiagnosed as one or the other. These findings led the researcher to present vignettes about girls with these disorders and compare teacher impressions of these two distinct but overlapping disorders.

ADHD.

Attention-Deficit Hyperactivity Disorder (ADHD) is an important disorder to consider in the classroom as it affects many students, and it can have an indirect effect on other students in the classroom and on teachers. Many studies note the negative effects

that ADHD can have on education, including academic failure and dropping out of school (Harpin, 2005); these findings suggest that students with ADHD need to be helped to prevent these negative outcomes, and accommodations are one method of helping these students. As previously mentioned, Pensocolido et al. (2008) found that adults were most likely to seek help for children with ADHD from teachers than from other professionals such as mental health professionals, suggesting that teachers should know how to help students with ADHD because they may be the first professionals to help.

The American Academy of Children and Adolescent Psychology (2008) published a pamphlet that presented some common symptoms of children and adolescents with ADHD. Common symptoms are inattention, distractibility, impulsivity, and hyperactivity, which lead to many visible problems such as impatience and invisible ones such as difficulty focusing. They were quick to highlight the academic difficulties that children and adolescents with ADHD experience, as they are impulsive and struggle to pay attention, even if they wish to behave well. They also note the comorbidity with other disorders, including with Bipolar Disorder. ADHD also seems to run in families. Children and adolescents with ADHD are clearly impacted academically, which is why the present study investigated accommodations for adolescents with ADHD.

The lifetime incidence of ADHD is between 3 and 5% (Arnold, 1996; American Academy of Children and Adolescent Psychology, 2008). ADHD is more common in males and, therefore, more commonly studied in males (Gaub & Carlson, 1997). It is important to remember that a recent study of teacher impressions of ADHD reviewed earlier noted teachers' relative lack of confidence in managing ADHD in female students compared to male students (Ohan et al., 2011). Information about the disorder and its

treatment, and findings in the literature, typically emphasize the understanding and treatment of ADHD in boys. Arnold (1996) argued that the lack of research about females with ADHD is a public health concern. Gender differences in ADHD and its impact in the classroom and on students need to be better understood.

Gaub and Carlson (1997) sought to understand the gender differences in children with ADHD by completing a meta-analysis. They used 18 studies, which compared girls and boys with an ADHD diagnosis. Each study had to have at least 10 participants and the participants had to be younger than 13 years and have an IQ of greater than 80 (excluding about 5 total participants). The studies were coded for dependent variables to ensure that the studies could be compared. Dependent variables included symptomology, intelligence, academic functioning, comorbid disorders, social skills, family variables, and fine motor skills. Gaub and Carlson (1997) calculated effect sizes for each study to allow studies to be compared. Analyses revealed no differences between the gender of participants on impulsivity, academic performance, social functioning, fine motor skills, parental education, and parental depression. Boys were found to be more hyperactive, more aggressive, have more externalizing behaviors, and be more likely to have a comorbid Conduct Disorder diagnosis than were girls. When compared with boys, girls were found to have lower full-scale, verbal, and performance IQ. The researchers noticed that other gender differences might be mediated by whether or not they are referred for their problems with ADHD. In clinical populations, for every 1 girl, between 6 and 9 boys are diagnosed with ADHD, whereas it is estimated that 3 boys have a diagnosis of ADHD for every 1 girl in the general population. This difference may be because girls are less externalizing in their symptoms, and, therefore, the clinical population of girls

with ADHD may represent only the most severe cases or cases that are impaired in other domains. This study also found that the rater of the participants might also affect gender differences; teachers' ratings showed greater gender differences in inattention and hyperactivity than did parents' ratings. This study revealed much about the similarities and differences between boys and girls with ADHD, but also shows that there is still more to be studied about the differences. In many ways, the presentation of ADHD in boys and girls is very similar, but there are important differences to note.

Bipolar Disorder.

The diagnosis of Bipolar Disorder in children and adolescents is a relatively new phenomenon, and the effects of the disorder are not well understood in this population; but it has grown to be a disorder of increasing concern for children and adolescents. One common finding for both adults and children is comorbidity and misdiagnosis with ADHD. Dodson (2000) cites the comorbidity rates of the disorders: 20-25% of adults with Bipolar Disorder also have ADHD, and 6-7% of the adult population with ADHD has Bipolar Disorder. Rosack (2002) also noted some of the overlapping symptoms, including hyperactivity and decreased need for sleep, which may explain some of the misdiagnosis.

Because of this comorbidity and misdiagnosis, Wozniak et al. (1995) studied mania in children and examined the overlap of manic symptoms and ADHD. They used clinically referred children with manic symptoms, with ADHD and non-ADHD controls less than 12 years old. The researchers used the Kiddie-Schedule for Affective Disorders (K-SADS) to confirm diagnoses. All manic children except for one also met criteria for ADHD. Of all children with ADHD in the sample, one-fifth also met criteria for mania.

The majority of parents of participants with mania noted that the problems began prior to 5 years of age. The children with mania had significantly more symptoms of ADHD than did the children with ADHD; the children with mania also had a higher rate of medication use and hospitalization than did the children with ADHD. The majority of children meeting criteria for mania had an irritable presentation, differing from the adult presentation of euphoria. The majority of the parents reported that the mood states in children with mania were chronic, which is different from the adult episodic presentation. Eighty-four percent of children with mania reported with a mixed presentation.

When the researchers removed the symptoms that are criteria for both mania and ADHD (distractibility, hyperactivity, and talkativeness), all children with ADHD maintained that diagnosis and 76% of children with mania continue to meet full or sub-threshold criteria for mania, suggesting that most children met more symptoms than necessary to meet a diagnosis. Children with mania were significantly more likely than children with ADHD to have a comorbid diagnosis of the following disorders: Major Depression, psychosis, anxiety disorders, Conduct Disorder, or Oppositional Defiant Disorder. Children with mania were more cognitively and intellectually impaired, receiving lower WISC-R scores on the Vocabulary and Digit Span subscales and a lower Verbal IQ on the WISC-R than their counterparts with ADHD; children with mania were also more likely than children with ADHD to be diagnosed with a learning disability. Both children with mania and children with ADHD had significantly impaired Global Assessment of Functioning (GAF) scores when compared with non-ADHD children, and children with mania had significantly more impaired scores than did children with ADHD. Parents of both children with mania and children with ADHD reported a significantly

higher rate of school dysfunction than for non-ADHD children. The children with mania and ADHD seem to have a more severe presentation and negative prognosis than did children with ADHD. Wozniak et al. (1995) highlighted many of the impairments of childhood mania and compared them with children with ADHD, but their findings are somewhat limited as the majority of participants were male.

The findings of Wozniak et al. (1995) suggested that the two disorders have different presentations in children and likely adolescents, meaning that they are two distinguishable disorders; children with Bipolar Disorder who meet criteria for ADHD are likely to have more symptoms of ADHD and are generally more impaired than the participants with ADHD. Children with Bipolar Disorder also experience many of the symptoms of ADHD; for that reason, they likely encounter many of the same challenges, as do students with ADHD in the classroom. Students with Bipolar Disorder are also more likely to have co-morbid disorders and intellectual and cognitive impairments, which can lead to greater challenges in the classroom, when compared to students with ADHD.

When studying teacher reactions to and accommodations for either ADHD or Bipolar Disorder in children and adolescents, it is important to study reactions to both disorders because they are similar, sometimes co-occur, and can be mistaken for the other. Teachers are less likely to know about Bipolar Disorder or to have received training in how to work with students with the disorder than is true for students with ADHD because Bipolar Disorder only recently has started to be diagnosed in children and adolescents; this could make working with students with Bipolar Disorder intimidating because of a lack of knowledge, and therefore, it could increase teachers' perceptions of severity and

dangerousness on the disorder. There are no known studies on Bipolar Disorder using teaching populations because in the past, it was extremely rare for a student to have the disorder. These problems and commonalities led the examiner to compare the two disorders in vignettes in the current study.

The Present Study

The present study was designed in an effort to help students who are experiencing challenges in the classroom due to mental illness. As Martin, Pescosolido, and Tuch (2000) found, the public still expresses some stigma toward people with mental illness, and Kranke and Floersch (2009) found that adolescents felt that stigma from their teachers and peers in classrooms. Corrigan (2001) and Corrigan et al. (2003) found that familiarity with mental illness likely reduces stigma toward those with mental illness. Thus, contact and education seem to be important mediators. Many have studied the various effects of diagnostic labels on stigma with this body of research suggesting that symptomatic behaviors themselves are often stigmatizing, but that labels can also sometimes have an influence, both positive and negative.

The more common theory is that labels have a negative impact, as Link (1982) demonstrated with patients being more likely to be unemployed and have a lower income than did non-patients; Socall and Holtgraves (1992) also found many negative social consequences of labeling, such as rejection. However, some studies also revealed benefits of labeling, such as Wadley and Haley (2007), in which labeling led to more helping behaviors. Angermeyer and Matschinger (1996) found that labels led people to believe that the problems were biological in origin, which decreased personal responsibility and the stigma that those people experienced (Corrigan, 2007). Fernald

and Gettys (1980) found that the use of diagnostic labels led others to feel that they had a better understanding of those with mental disorders' problems when compared with the problems of people that were not labeled. In terms of labels' effects on teachers, the findings of Fairbanks and Stinnet (1997) and Fox and Stinnet (1996) questioned whether labels had as strong an effect on teachers when compared to other populations. Ohan et al. (2011) found that when a behavioral description of a student with ADHD also had a diagnostic label of ADHD, teachers were more likely to implement accommodations for the students with the diagnostic label than they were for students with only a behavioral description.

Research on accommodation in college settings suggests that professors, and perhaps high school teachers, utilize accommodations for students with mental illness [Salzer et al. (2008) and Becker et al. (2002)], but teachers may still fear students with mental illness or see them as dangerous. Bipolar Disorder and ADHD can be confused in children and adolescents, partially due to their externalizing symptoms, which is why they could have similar impacts in the classroom.

With this background in mind, the present study attempted to assess whether diagnostic labels impact private high school teachers' perceptions of students with Bipolar Disorder and ADHD as well as their likelihood of implementing accommodations for such students. The teachers read vignettes with behavioral descriptions for one of the two disorders; half of the teachers read the behavioral description with the addition of a diagnostic label and half read only the behavioral description. Teachers were asked various questions that assessed their perceptions of the student and the accommodations that they would likely implement. The study assessed

their opinions on mental illness, familiarity with mental illness, and belief in the cause of the disorder to see if these were related to attitudes or their implementation of accommodations. It was hypothesized that teachers in private high schools would be more likely to use accommodations for the students with a diagnostic label than the students with only the behavioral description. This was hypothesized because the use of diagnoses has been found to be associated with greater helping behaviors of participants (Wadley & Haley, 2001) when compared to target groups with problems but without a diagnostic label. Accommodations may also be more likely because teachers may feel that they have a greater understanding of the child with problems when it is accompanied with a diagnosis (Fernald & Gettys, 1980).

Additional hypotheses were made that include that teachers with less stigmatizing views of mental illness would be more likely to implement accommodations and have more positive perceptions of the student with mental illness than would those who have more stigmatizing views of mental illness; that teachers who are more familiar with mental illness would be more likely to implement accommodations for and have positive perceptions of the students than would teachers that are less familiar; and that teachers who endorse biological causes of the disorders would implement more accommodations for and have more positive perceptions toward the student than teachers who endorse psychosocial causes. A hypothesis was not formed whether or not teachers would have more positive perceptions of students with diagnostic labels compared with the students without a label because of the conflicting findings on interpersonal perceptions toward people with mental illness. On one hand, there were studies that suggested that labels could lead to more positive perceptions of those with mental illness (such as Fernald &

Gettys, 1980), but other studies suggested that there is still stigma in the classroom (Kranke & Floersch, 2009).

Method

Participants

Participants were 86 high school teachers from 5 private high schools. Participants were recruited through 5 private high schools in New England. Three private boarding schools participated, providing 49 participants, and 2 private day schools participated, providing 35 participants. Two of the schools that participated preferred that they control the distribution of the survey; one head announced it to the faculty and they could choose to ask to participate, and two schools provided full faculty lists so every member of the faculty was contacted. One hundred surveys were opened, and 85 participants were considered complete. Participants were recruited after initial approval from Heads of schools. As an incentive to participate, teachers were offered the opportunity to enter a raffle to win 1 of 3 American Express gift certificates of \$50 each. The age of participants ranged from 23 to 65 years old with the mean age being 43.11 years old. Of the completed participants, 43 (50.6%) were identified as female and 42 (49.4%) were identified as male. One participant identified as American Indian or Alaska native, 2 participants identified as Asian, 1 participants identified as Black or African American, and 80 (94.1%) participants identified as White. One participant identified as Hispanic or Latino and 76 (89.4%) participants identified as not Hispanic or Latino.

Seventy-three (85.9%) teachers teach or have taught grade 9; 77 (90.6%) teachers teach or have taught grade 10; 77 (90.6%) teachers teach or have taught grade 11; and 80

(94.1%) teachers teach or have taught grade 12 (this value is greater than the total number of participants because some teachers have taught or teach multiple grades). Thirteen participants (15.3%) said that they also taught post-graduate students (or PG's). Four teachers (4.7%) had taught at the college level. Six teachers (7.1%) teach or have taught elementary school grades (K-5) and 28 teachers (32.9%) teach or have taught middle school grades (6-8). Twenty-two teachers have a formal background working with students in special education, including teaching students with special needs or taking classes on those topics, representing 25.6% of the participants in this study. Four participants reported somewhat informal experience working with students in special education, representing 4.7% of the sample. The majority of the participants ($n = 55$) had no experience working with students in special education, representing 64.0% of the sample.

There were 23 participants in the first experimental group (description of a female student with ADHD without a label), 24 participants in the second experimental group (description of a female student with ADHD with a label), 23 participants in the third experimental group (description of a female student with Bipolar Disorder without a label), and 24 participants in the fourth experimental group (description of a female student with Bipolar Disorder with a label).

Materials

Vignettes

This experiment used four vignettes (see Appendix D) based on Ohan et al. (2011). As in Ohan et al. (2011), the vignettes varied the disclosure of a diagnostic label. The vignettes also varied in disorder type, Attention-Deficit Hyperactivity Disorder

(ADHD) and Bipolar Disorder. The first version included a behavioral description of a female student with symptoms of ADHD with no diagnostic label. The second version included a behavioral description of a female student with symptoms of Attention Deficit-Hyperactivity Disorder (ADHD) with a diagnostic label. The third version included a behavioral description of a female student with symptoms of Bipolar Disorder with no diagnostic label. The fourth version included a behavioral description of a female student with symptoms of Bipolar Disorder with a diagnostic label (see Appendix E).

The following statement preceded the vignette: "Please thoroughly read this description of a student so you are able to answer the questions following this statement." In addition to expanding Ohan et al.'s (2011) vignettes to address Bipolar Disorder, the following changes were made: the age was changed to a 16-year old to examine a high school student; a few actions were changed to reflect more high-school appropriate behaviors; and a female student was used because only one gender could be studied due to sample size issues, and ADHD is more commonly studied in boys. Thus, this study helped to address an understudied question of how teachers respond to psychiatric problems in girls.

This diagnostic label of ADHD was given with the following phrase in condition 2: "Last year, Jessica had an assessment and was diagnosed with Attention Deficit-Hyperactivity Disorder (ADHD)." The experimenter was unable to locate a vignette that represented a child or adolescent in a classroom with Bipolar Disorder, so Ohan et al.'s (2011) ADHD vignette was used as a guideline. The symptoms in the vignette were altered to reflect the typical moods and behavior of children and adolescents with Bipolar Disorder (American Academy of Child & Adolescent Psychiatry, 2008). The diagnostic

label of Bipolar Disorder was provided using the following phrase in condition 4: “Last year, Jessica had an assessment and was diagnosed with Bipolar Disorder.” All four vignettes are comparable in length, with the diagnostic conditions (2 and 4) being somewhat longer because of the additional sentence about diagnosis. Vignette 1 (ADHD with no diagnosis) is 133 words in length; Vignette 2 (ADHD with diagnosis) is 147 words in length; Vignette 3 (Bipolar Disorder with no diagnosis) is 151 words in length; and Vignette 4 (Bipolar Disorder with diagnosis) is 163 words in length. After reading the vignette, the participant was asked to select a box that read “CLICK HERE to indicate that you have read this behavioral description” before starting to answer questions about it.

Impressions of Student

To assess teachers' impressions of the hypothetical student, questions from Ohan et al. (2011) were adapted to fit this study (see Appendix E). These questions were used to assess a variety of reactions to the vignette, including perceived seriousness of the problem, potential disruptiveness of the behaviors, teacher confidence in handling the behaviors, perceived level of stress for the teacher, emotional reaction of the teacher, likelihood of intervention by the teacher, and amount of time teacher would be willing to commit to the student to help him/her with his/her problems. In studies that used similar vignettes and questions, subscale α 's ranged from .82 to .93. Ohan et al. (2011) also assessed the consistency of individual questions used across the vignettes in their study and found that per question, α ranged from .79 to .93. Alphas for subscales in Ohan et al. (2011) were $\alpha=.79$ for items assessing Perceived Severity/Seriousness (i.e., overall seriousness, disruption to classroom, disruption of friendships), $\alpha=.57$ for the assessment

of willingness to implement treatment (i.e., learning assistance, medication, and classroom-based behavioral strategies), $\alpha = .59$ for the Anticipated Emotional Reactions (i.e., upset or bothered, stressed, and confidence), and $\alpha = .28$ for the Anticipated Behavioral Reactions (Ohan et al., 2011). The questions that assessed the willingness to implement treatment were not included in the present study.

In this study, the experimenter utilized 8 of the questions from Ohan et al. (2011). The question about specific treatments to implement was removed because more detailed and specific accommodations were assessed following this section (see Appendix F). The experimenter also changed the response format from a 9-point scale to a 5-point scale to maintain consistency with response formats for other questionnaires used in this study. Questions were: 1) How serious are Jessica's behavior problems?; 2) How likely is Jessica to disrupt or interfere with your classroom?; 3) How much would Jessica's behaviors disrupt her friendships?; 4) How confident are you that you could handle Jessica's problems *without* assistance?; 5) How stressed would you feel by Jessica's behavior?; 6) To what extent would you be upset or bothered by Jessica's behaviors?; 7) How likely would you be to intervene with versus not take action for Jessica's behavior problems?; and 8) How much time and effort would you put in for Jessica? Together, these 8 questions assess the general impression a teacher may have of the student being in his/her classroom, and can be collapsed for analyses into three categories: evaluations of Perceived Seriousness of problems (questions 1-3), Emotional Reactions to child (questions 4-6), and Behavioral Reaction toward child (questions 7-8). In the present student, alphas for the subscales were $\alpha = .596$ for items assessing Perceived Severity (i.e., overall seriousness, disruption to classroom, disruption of friendships) having reversed

the items to have higher perceived severity at the same anchor of the scale, $\alpha = .683$ for the Anticipated Emotional Reactions (i.e., upset or bothered, stressed, and confidence), and $\alpha = .515$ for the Anticipated Behavioral Reactions having reversed an item to have the greater behavioral reactions at the same anchor on the scale.

Accommodations for Student

There are many different ways to implement accommodations for students. To assess this range, Salzer, Wick, and Rogers (2008) developed a measure including 25 accommodations across the categories of Assignment, Classroom, and Examination or Grading accommodations. Salzer et al. (2008) did not report an alpha for this measure or its subscales. To present these accommodations to participants in the current study, teachers were given the introductory statement "Imagine that Jessica were a student in your class. How likely would you be to provide her with the following accommodations?" The accommodations were then evaluated on a 5-point Likert scale, ranging from "Very unlikely" to "Very likely." Examples of the accommodations used include "Advanced notice of assignments;" "Written assignments instead of oral presentations or vice versa;" "Assigned classmate as a volunteer assistant;" "Use of notetaker or able to photocopy another's notes;" "Extended time for test taking;" "Exam in a separate, quiet, and non-distracting room."

Some of Salzer et al.'s (2008) accommodations were not included in this study because of the length of the questionnaire and the need to keep the required time to complete the study reasonable given the busy schedules of teachers. Omitted accommodations include, "Assignment assistance during hospitalization," "Private feedback on academic performance," "Beverages permitted in class," and "Exam

individually proctored, including in the hospital” (Salzer et al., 2008). These questions were not included because they were less relevant to the purposes of the study, or overlapped with retained questions. “Assignment assistance during hospitalization” was not included because it is a specific situation outside of school and reflects severe mental illness that leads the student to hospitalization, while this study aims to examine students with mental illness who are functioning well enough to attend school. “Exam individually proctored, including in the hospital” seemed somewhat repetitive of the previous accommodation, and it once again referred to hospitalization. “Private feedback on academic performance” seemed repetitive of the included accommodation of “Private one-on-one meetings with a teacher.” “Beverages permitted in class” seemed less relevant for the purpose of this study. With these omissions, the categories of Assignment and “Examination/Grading changed from 7 accommodations to 6, and the Classroom category changed from 11 accommodations to 9 accommodations; this left an assessment of 21 assessments in the present study (Appendix F). Alphas for these subscales in the present study were $\alpha=.721$ for Assignment, $\alpha=.770$ for Examination or Grading, and $\alpha=.761$ for Classroom accommodations. Alpha for the whole scale was $\alpha=.887$.

Causal Explanations of Disorder

To assess teachers' beliefs about the causal explanations of the behaviors presented, the participant was asked questions from Jorm and Griffiths (2008). No alpha was reported for this scale in Jorm and Griffiths (2008). This study used the same introduction as in Jorm and Griffiths (2008) before the potential causes of disorders, but it asked about the perceived causes of Jessica's difficulties rather than about causes of disorders in general. “There are many people in the community who suffer from problems like

Jessica's. The next few questions are about possible causes of this sort of problem developing in anybody. How likely do you think each of the following is be a reason for such problems?" One item was changed to make it more relevant for the current study, and one was added. The Jorm and Griffiths (2008) study was completed in Australia where bush fires are more common and included the item "Some recent traumatic event such as bushfires threatening your home, a severe traffic accident or being mugged?" To make this question more relevant for the participants the wording "bushfires threatening your home" was changed to "a house fire" within the same sentence. "Chemical imbalance" was added as an additional causal explanation because it is a commonly used description of biologically based disorders like Bipolar Disorder. All items are as follows: 1) A virus or other infection; 2) An allergy or reaction; 3) Day to day problems such as stress, family arguments, difficulties at work or financial difficulties; 4) The recent death of a close friend or relative; 5) Some recent traumatic event such as a house fire, a severe traffic accident, or being mugged; 6) Problems from childhood such as being badly treated or abused, losing one or both parents when young, or coming from a broken home; 7) Inherited or genetic; 8) Being a nervous person; 9) Having weakness of character; and 10) Chemical imbalance. The items create a biological subscale (causes 1, 2, 7, and 10) and a psychosocial subscale (causes 3, 4, 5, 6, 8, and 9). Answers are reported on a 5-point Likert scale ranging from "Very unlikely" to "Very likely" for consistency in the study. The final version of the 10 questions to assess causal explanations of the behaviors can be found in Appendix G.

The alpha for all items on the causal explanations scale was $\alpha = .774$ in the present study. Although other publications using this measure emphasize either the whole scale

or individual items, a factor analysis was completed to discover commonalities among items, and identify subscales. The scree plot indicated that 4 factors were present. Factor 1 included “day to day problems such as stress, family arguments, difficulties at work or financial difficulties,” “the recent death of a close friend or relative,” “some recent traumatic event such as a house fire, a severe traffic accident, or being mugged,” and “problems from childhood such as being badly treated or abused, losing one or both parents when young, or coming from a broken home.” These items suggested a factor title of psychosocial causes ($\alpha = .910$). Factor 2 included items “a virus or other infection” and “an allergy or reaction” ($\alpha = .858$). Factor 3 included the items “inherited or genetic” and “chemical imbalance” ($\alpha = .683$). The final factor included the items “being a nervous person” and “having weakness of character” ($\alpha = .623$). To provide aggregate scales for some analyses, items from conceptually similar factors were combined. Combining items from factors 1 and 4, which were the more psychosocial causes, yielded an alpha for a composite psychological factor of .830. Combining items from factors 2 and 3, which were the more biological causes, yielded an alpha for the combined biological factor of .623.

General Attitudes about Mental Illness

To assess the participants' views on mental illness, items were taken from Borinstein (1992). These items were originally from The Robert Wood Foundation Program Study of Chronic Mental Illness (1989). No alpha was reported in Borinstein (1992). The 15 statements were reduced to 10 to reduce completion time. Reduced statements include: 1) Virtually anyone can become mentally ill; 2) There is still a lot of stigma attached to mental illness; 3) Most people with serious mental illness can, with

treatment, get well and return to productive lives; 4) In most cases, keeping up a normal life in the community will help a person with mental illness get better; 5) The mentally ill are far less of a danger than most people believe; 6) Having a mental illness is no different from having any other kind of illness; 7) I don't believe mental illness can really be cured; 8) People with chronic mental illnesses are, by far, more dangerous than the general population; 9) Mental health facilities should be kept out of residential neighborhoods; and 10) The best way to handle the mentally ill is to keep them behind locked doors. These statements reflect both positive and negative views on the mentally ill. The statements that were removed were chosen because of repetitiveness or lack of relatedness to the present study. One statement was removed because it could be seen as related to causal explanations of the disorders. The statements that were removed were "Locating a group home or apartments for people with mental illness in residential neighborhoods does not endanger local residents," "Locating a group home or apartments for people with mental illness in a residential area will not harm property values," "Even if they seem OK, people with chronic mental illness always have the potential to commit violent acts," "Most of the homeless today are, in fact, mentally ill," and "It is easy to recognize someone who once had a serious mental illness." Before responding to statements, participants read the prompt "Please read the following statements and select the degree to which they relate to how you feel and think." The 10 statements were then evaluated on a 5-point Likert Scale ranging from "Strongly disagree" to "Strongly agree," which was altered from Borinstein's 6-point response scale in an effort to maintain consistency in ratings throughout the study. After reverse-scoring items 7 through 10 because they qualitatively presented a more negative view of mental illness, a reliability

analysis was run. The alpha for the present study was .610. The 10 statements to assess general attitudes about mental illness can be found in Appendix H.

Familiarity with Mental Illness

The questions used to assess familiarity with mental illness of the participants came from Corrigan, Edwards, Green, Diwan, and Penn (2001) who adapted the Holmes' Level of Contact Report (1999) from 12 statements to 7. It includes 7 statements that can be answered as "Yes" or "No" in relation to the participants' own experiences. The statements are: 1) My job involves providing services/treatment for persons with mental illness; 2) I have observed, in passing, a person I believe may have had a mental illness; 3) I have observed persons with a mental illness on a frequent basis; 4) I have worked with a person who had a mental illness at my place of employment; 5) A friend of the family has a mental illness; 6) I have a relative who has a mental illness; and 7) I live with a person who has a mental illness. These statements formed a hierarchical index from 0 to 7 about their familiarity with mental illness. Corrigan et al. (2001) reported that "the mean of rank order correlations summarizing interrater reliability was 0.83" (Corrigan et al., 2001, p. 954). Corrigan et al. (2003), which used the same assessment, reported an alpha reliability = .62. In this study, the experimenter removed the word "severe" from the statements to assess broad exposure to mental illness, including mental illness of the moderate severity described in the vignettes. To score these items, participants receive a higher score for the most intimate item with which they agreed. Therefore, if they selected yes for "I have observed, in passing, a person I believe may have a mental illness," their score would be a 1, whereas if they selected yes for "I have a

relative who has a mental illness,” their score would be a 6. These 7 statements can be found in Appendix I.

Demographics Questionnaire

Participants were asked to fill out a form assessing demographics. The questions assessed age, sex, and race/ethnicity, the teacher's school of employment, the grade(s) the teacher teaches and has taught, and the teacher's background and experience with special education. Also, the participant was presented the question “If you had to assess whether this student in the description has a mental disorder, which diagnosis would seem most likely for Jessica?” This question was followed with the names of disorders ADHD, Bipolar Disorder, Conduct Disorder, Major Depression, and Oppositional Defiant Disorder, which the participant then evaluated on a 5-point Likert scale from “Very unlikely” to “Very likely.” This question allowed the experimenter to see if teachers agreed with the assigned diagnosis in conditions where a diagnosis was given, and to assess their impressions of the symptoms in the conditions without a diagnostic label. At this point, participants had the option to submit their email address to be entered to win 1 of 3 American Express gift certificates for \$50. These questions are presented in Appendix J. Following this section was the debriefing, as visible in Appendix K.

Procedure

The experimenter initially contacted the heads of private school through email (see Appendix A) to gain their approval to ask for teachers' participation and also a list of email addresses for the teachers. Letters of approval from school headmasters were forwarded to the Connecticut College IRB once they were obtained. Once the experimenter gained the assent of the heads of school, teachers were contacted via email

(see Appendix B). After a short explanation of the study, which also explained that they were not identified, that their individual responses were not shared with school administrators, and that they had the option to refuse, the email contained a link. This link connected participants to the official informed consent document (see Appendix C), followed by the vignette and the questions from the method section (see Appendices D through J). This online questionnaire was created using Qualtrics because it allows for random assignment to condition for each participant. Those who chose to participate were asked to read and electronically sign the informed consent (see Appendix C). Once they signed the informed consent, they were randomly assigned to an experimental group by Qualtrics and presented with a vignette from Appendix D. Following the vignette, participants were asked to respond to the questions assessing their impressions of the student (see Appendix E), accommodations for the student (see Appendix F), causal explanations of the behavior (see Appendix G), general attitudes about mental illness (see Appendix H), familiarity with mental illness (see Appendix I), and a demographics and diagnostic assessment form, including the option to enter to win a gift certificate (see Appendix J). After completing the study or discontinuing, teachers were presented with the explanation of research/debriefing (see Appendix K), which provided them with resources containing further information about related research, and about ADHD and Bipolar Disorder in students. This study was reviewed and approved by the Human Subjects Institutional Review Board at Connecticut College.

Results

The minimums, maximums, means, and standard deviations of the variables used in primary analyses are presented in Table 1.

Table 1

Descriptive Statistics for the Primary Dependent Variables

| Variable | Minimum | Maximum | Mean | Standard Deviation |
|--|---------|---------|--------|--------------------|
| Perceived Severity | 2 | 2 | 3.8256 | .67393 |
| Emotional Reaction | 1 | 4.67 | 2.9457 | .83370 |
| Anticipated Behavioral Reaction | 2.50 | 5.00 | 3.9884 | .64615 |
| Assignment Accommodations | 1.33 | 5.00 | 3.2236 | .82514 |
| Classroom Accommodations | 1.67 | 5.00 | 3.9334 | .66863 |
| Examination and Grading Accommodations | 1.00 | 5.00 | 3.5461 | .84040 |

The Influence of Disorder and Label on Teacher Accommodations for Students

One of the main hypotheses in the present study was that labeling a student would have a different effect on the likelihood of teachers implementing accommodations compared with if a student's behaviors were only described. A 2 (disorder: Bipolar Disorder or ADHD) by 2 (diagnostic label: present or absent) MANOVA was completed to examine this hypothesis. The three subscales of the accommodations measure (Assignment, Classroom, and Examination/Grading) were the dependent variables. There were no significant multivariate effects. The test of the multivariate main effect for disorder showed that it did not have a significant effect on use of the various types of accommodations, Wilks's Lambda = .93, $F(3, 79) = 1.88$, $p = .140$, Eta-squared = .067. Label also did not have a significant effect on accommodations, Wilks's Lambda = .97, $F(3, 79) = 0.94$, $p = .426$, Eta-squared = .034. There was also no interaction effect between disorder and label, Wilks's Lambda = .98, $F(3, 79) = 0.53$, $p = .666$, Eta-squared = .020.

Although no significant multivariate effects were observed, univariate tests were examined for exploratory purposes. Between-subjects tests revealed that disorder type had a significant main effect on Examination/Grading Accommodations, $F(1, 81) = 4.40$, $p = .039$, Eta-squared = .052. Participants who read about Bipolar Disorder were more likely to use Examination/Grading Accommodations ($M = 3.74$) compared to participants who read about a student with ADHD ($M = 3.36$). Between-subjects tests also revealed a trend toward significance for disorder to have an effect on Classroom Accommodations, $F(1, 81) = 3.50$, $p = .065$, Eta-squared = .041. This trend suggested that participants who read about Bipolar Disorder were somewhat more likely to use Classroom

Accommodations ($M = 4.05$) compared with the participants who read about ADHD ($M = 3.79$).

The Influence of Disorder and Label on Teacher Impressions of the Student

Although no hypothesis was created because of conflicting results in the literature, the effect of the presence or absence of a diagnostic label on impressions of students was a relationship of interest. A 2 (disorder) by 2 (label) MANOVA was completed to examine the influence of these variables on the three subscales that measured participants' impressions of the student (Perceived Severity/Seriousness, Emotional Reaction, and Anticipated Behavioral Reaction). There was a multivariate main effect for disorder, Wilks's Lambda = .894, $F(3, 79) = 3.13$, $p = .030$, Eta-squared = .106. There was no significant effect of label on impressions of the student, Wilks's Lambda = .916, $F(3, 79) = 2.40$, $p = .074$, Eta-squared = .084. There was no interaction effect of disorder and label type on impressions of students, Wilks's Lambda = .985, $F(3, 79) = 0.40$, $p = .752$, Eta-squared = .015.

Univariate tests were examined to better understand the multivariate effects just described. These revealed that disorder type had a significant effect on Emotional Reaction to students, $F(1, 81) = 9.52$, $p = .003$, Eta-squared = .105. Participants who read about Bipolar Disorder had a stronger emotional reaction to the student ($M = 3.24$) than the participants who read about a student with ADHD ($M = 2.71$).

Follow-up Analyses of Specific Accommodations

A series of 2 (disorder) by 2 (label) MANOVAs was completed to examine possible effects of disorder and label on the implementation of specific individual accommodations within each subscale that might have been obscured in the earlier

analysis. A separate MANOVA was conducted for the items in each of the three subscales. There were no multivariate effects of disorder or label on Assignment Accommodations. Univariate tests were examined for exploratory purposes. Between-subjects effects for the six items on the Assignment Accommodations subscale suggested that there was an interaction effect of disorder and label on the likelihood that participants would use "permission to submit assignments handwritten rather than typed," $F(1, 79) = 5.24, p = .025, \text{Eta-squared} = .062$ (see Figure 1). Teachers were more likely to permit handwritten assignments when they read a labeled versus unlabeled vignette about a student with Bipolar Disorder. The opposite pattern was shown for labeled versus unlabeled ADHD vignette.

There were no effects on the items "extended time to complete assignments," "advance notice of assignments," "substitute assignments in specific circumstances," "assignments completed in dramatic formats (that is, demonstration or role play)," or "written assignments instead of oral presentations or vice versa."

In the MANOVA on Classroom Accommodations, there were no multivariate effects of disorder or label. Univariate tests were examined for exploratory purposes. Between-subjects tests for the nine items on the Classroom Accommodations subscale suggested that there was an influence of disorder on the likelihood that participants would allow "use of a tape recorder permitted in class," $F(1, 78) = 5.23, p = .025, \text{Eta-squared} = .063$. Participants were more likely to allow students with Bipolar Disorder to use a tape recorder in class ($M = 4.59$) than they were students with ADHD ($M = 4.12$). There was also an effect for disorder on the likelihood that a teacher would allow "tutoring in class materials," $F(1, 78) = 6.67, p = .012, \text{Eta-squared} = .079$. Participants were more

likely to tutor students with Bipolar Disorder on course materials ($M = 4.41$) than they were students with ADHD ($M = 3.82$). There was also an effect of disorder on the likelihood that a teacher would allow “modified or preferential seating arrangements, such as near the door or in front of the classroom,” $F(1, 78) = 6.82, p = .011$, Eta-squared = .080. Participants were more likely to allow for modified seating arrangements for students with Bipolar Disorder ($M = 4.88$) than they were for students with ADHD ($M = 4.44$). Finally, these univariate tests revealed that there was one main effect for label and this was on the likelihood that participants would allow “early availability of syllabus and textbooks,” $F(1, 78) = 6.20, p = .015$, Eta-squared = .074. Participants were more likely to allow early availability of the syllabus and textbooks to students who were labeled ($M = 4.07$) compared with students who were not diagnosed with a label ($M = 3.41$). There were no effects on the items “private one-on-one meetings with a teacher,” “use of a notetaker or able to photocopy another’s notes,” “prearranged or frequent breaks,” “availability of course materials (that is lectures or handouts) on disk,” or “assigned classmate as a volunteer assistant.”

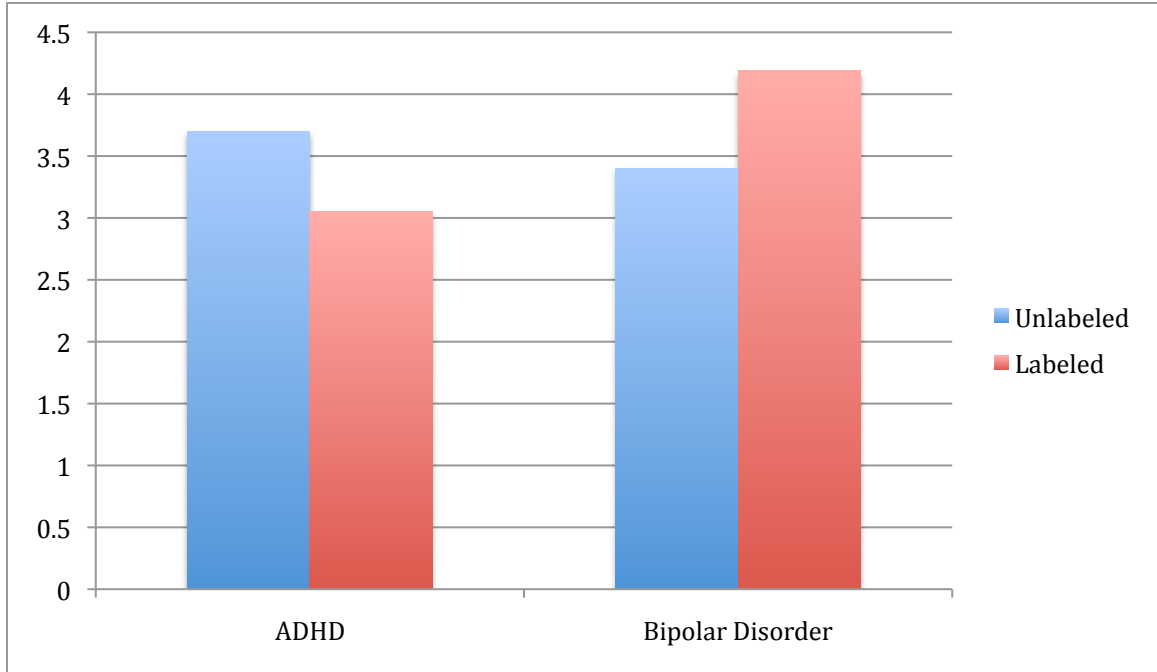
In the MANOVA on Examination/Grading Accommodations items, there were no multivariate effects for disorder or label. Exploratory univariate tests for the six items on the Examination/Grading Accommodations subscale showed that there was an influence of disorder on the likelihood that participants would allow “provision of a grade of Incomplete (I) rather than a Fail (F) if relapse occurred,” $F(1, 77) = 4.09, p = .047$, Eta-squared = .050. Participants were more likely to allow for an incomplete for students with Bipolar Disorder ($M = 4.15$) compared with students with ADHD ($M = 3.60$). There was also an influence of disorder on the likelihood that participants would allow “use of

adaptive computer software," $F(1, 77) = 4.036, p = .048, \text{Eta-squared} = .050$.

Participants were more likely to allow students with Bipolar Disorder to use adaptive computer software ($M = 3.82$) compared with students with ADHD ($M = 3.21$). There were no effects on the items "extended time for test taking," "exam in a separate, quiet, and non-distracting room," "exam in alternate format (that is, from multiple-choice to essay or oral, presentation, role play or portfolio)," or "increased frequency of exams."

Any results from these exploratory analyses should be interpreted with caution, but the findings reported suggest that type of disorder had an effect on the likelihood that teachers would implement several specific accommodations. In contrast, there were few effects of diagnostic label: Teachers were more likely to take the extra planning that is required to provide a syllabus or textbooks early, and label influenced the likelihood of teachers allowing handwritten assignments, but this influence on method of writing assignments depended on the child's disorder.

Figure 1. The Influence of Disorder and Label on Permission for Handwritten Assignments



Follow-Up Analyses of Specific Impressions of Students

A 2 (disorder) by 2 (label) MANOVA was completed to examine whether disorder and label had effects on individual questions measuring perceived impressions of students on the three subscales, Perceived Severity/Seriousness, Emotional Reaction, and Anticipated Behavioral Reaction.

In a MANOVA for the three items of the Perceived Severity subscale, there was a multivariate main effect of disorder, Wilks's Lambda = .740, $F(3, 79) = 9.27$, $p < .001$, Eta-squared = .260. There was no main effect of label or an interaction effect of disorder and label on Perceived Severity items. Between-subjects tests of the Perceived Severity subscale items revealed that disorder had a significant effect on the question "how serious are Jessica's behavior problems," $F(1, 81) = 18.583$, $p < .001$, Eta-square = .187.

Participants were more likely to perceive the description of a student with Bipolar Disorder as serious ($M = 4.66$) when compared to a description of a student with ADHD ($M = 4.07$). There were no differences for the questions "how likely is Jessica to disrupt or interfere with your classroom" and "how much would Jessica's behaviors disrupt her friendships."

In the MANOVA for the three items on the Emotional Reaction subscale, there was a multivariate main effect of disorder on the teachers' ratings, Wilks's Lambda = .811, $F(3, 77) = 5.968$, $p = .001$, Eta-Squared = .189. There was no main effect of label or interaction effect of label and disorder. Between-subjects tests revealed that disorder had a significant effect on participants' responses to the question "how confident are you that you could handle Jessica's problems *without* assistance," $F(1, 79) = 18.24$, $p < .001$, Eta-squared = .188. Participants were more likely to believe that they could handle the students' problems without assistance if the student had Bipolar Disorder ($M = 3.61$)

when compared with the description of the student with ADHD ($M = 2.69$). There were no effects on the items “how stressed would you feel by Jessica’s behavior” or “to what extent would you be upset or bothered by Jessica’s behaviors.”

In the MANOVA for the 2 items on the Anticipated Behavioral Response subscale, there were no multivariate effects for disorder or label. Univariate tests also did not reveal effects for the items “how likely would you be to intervene with versus not take action for Jessica’s behavior problems” or “how much time and effort would you put in for Jessica.”

Relationships Between Teachers’ Beliefs and Experiences and Responses to Students with ADHD and Bipolar Disorder

To examine the additional hypotheses that opinions on mental illness, familiarity with mental illness, and causal explanations for mental illness would be related to accommodations for students with mental illness and impressions of students with mental illness, bivariate correlations were conducted.

Greater familiarity with mental illness as measured by the Level of Contact report was related to lower Perceived Severity of the student’s problems, $r(86) = -.220, p = .042$. Greater familiarity with mental illness was also correlated with a greater likelihood of providing Assignment Accommodations, $r(86) = .275, p = .010$. No other correlations with familiarity were significant.

A stronger belief in biological causes (a virus or other infection, an allergy or reaction, inherited or genetic, or a chemical imbalance) of Jessica’s problem was related to higher Perceived Severity of her problems, $r(86) = .364, p = .001$. A greater endorsement of viral/infection explanations (factor 2) was also related to a higher

Perceived Severity of the student's problems, $r(84) = .339, p = .002$, but beliefs in genetic or chemical explanations were not related, $r(86) = .186, p = .086$. A greater belief in viral/infection explanations for mental illness was also correlated with a greater likelihood of participants to utilize Examination/Grading Accommodations, $r(84) = .225, p = .040$, but beliefs in genetic or chemical explanations were not related, $r(86) = .012, p = .913$. A greater belief in nervousness or weakness of character being a cause of mental illness was related to a decreased Anticipated Behavioral Reaction, $r(85) = -.253, p = .019$. No other correlations with accommodations or impressions were significant.

The variable "opinions toward mental illness," which was an average of the items on that scale, was not related to any of the accommodation subscales or impressions of the student.

The Influence of Disorder and Label on Teachers' Diagnostic Impressions

To better understand why label had so little influence on teacher's responses to the vignettes, a 2 (disorder) by 2 (label) MANOVA was completed to examine the effects of these variables on participants' diagnostic impressions. Near the end of the study, participants read the following prompt, "If you had to assess whether this student in the description has a mental disorder, which diagnosis would seem most likely for Jessica" and responded with their ratings of the appropriateness of five different diagnoses: Attention Deficit Hyperactivity Disorder (ADHD), Bipolar Disorder, Conduct Disorder, Major Depression, and Oppositional Defiant Disorder. There was a multivariate main effect for disorder revealing that the students' symptoms in the vignette had a significant effect on teachers' diagnostic impressions, Wilks's Lambda = .354, $F(5, 60) = 0.65, p < .001$, Eta-squared = .646. Label did not have a significant effect on diagnostic

impressions, Wilks's Lambda = .961, $F(5, 60) = .49$, $p = .782$, Eta-squared = .039. The interaction effect of disorder and label showed a trend toward significance, Wilks's Lambda = .837, $F(5, 60) = 2.33$, $p = .053$, Eta-squared = .163. Between-subjects tests revealed that disorder had a significant effect on people endorsing ADHD, $F(1, 64) = 6.13$, $p = .016$, Eta-squared = .087. Participants who read about a student with ADHD were more likely to think the student had ADHD ($M = 4.09$) than were participants who read about a student with Bipolar Disorder ($M = 3.45$). Disorder also had an effect on participants endorsing Bipolar Disorder, $F(1, 64) = 95.82$, $p < .001$, Eta-squared = .600. Participants who read about Bipolar Disorder were more likely to think the student had Bipolar Disorder ($M = 4.35$) when compared with the participants who read about a student with ADHD ($M = 2.25$).

Disorder also had an effect on participants' likelihood of endorsing Major Depression, $F(1, 64) = 23.03$, $p < .001$, Eta-squared = .265. Participants who read about a student with Bipolar Disorder were more likely to think the student had Major Depression ($M = 3.52$) when compared with participants who read about ADHD ($M = 2.230$). There was also a trend toward significance for effect of disorder on the likelihood that participants thought the student had Conduct Disorder, $F(1, 64) = 3.76$, $p = .057$, Eta-squared = .056. Participants who read about a student with ADHD were more likely to think the student had Conduct Disorder ($M = 2.97$) than participants who read about a student with Bipolar Disorder ($M = 2.50$). Despite the marginal interaction effect of disorder and label, there were no significant univariate interaction effects on diagnostic impressions.

To further probe how teachers were influenced by diagnostic labeling, if at all, an independent *t*-test was conducted on ADHD diagnostic impressions focusing on two conditions: ADHD without a label, and ADHD with a label. This *t*-test showed that the likelihood of participants believing that Jessica had ADHD did not differ between the two experimental groups that read the unlabeled ($M = 4.50$) and labeled ADHD vignettes ($M = 3.95$), $t(40) = 1.72$, $p = .092$. If anything, there was a trend for greater confidence in an ADHD diagnosis when the vignette was unlabeled. A parallel independent *t*-test on Bipolar diagnostic impressions showed that the likelihood of participants believing that Jessica had Bipolar Disorder did not differ between the two experimental groups that read the unlabeled ($M = 4.20$) and labeled ($M = 4.36$) Bipolar Disorder vignettes, $t(40) = -0.61$, $p = .546$. From these analyses, teachers appear to have ignored or, in the case of ADHD, possibly disagreed with the diagnosis provided in the labeled vignettes.

A final set of pairwise comparisons of diagnostic impressions, yielded some evidence that teachers paid attention to diagnostic labels, when evaluating Bipolar Disorder. Comparisons of Bipolar diagnostic impressions across ADHD labeled and Bipolar labeled conditions showed that the likelihood of participants believing that Jessica had Bipolar Disorder differed (see Figure 2), $t(40) = -8.06$, $p < .001$. Participants who read the labeled Bipolar Disorder vignette were significantly more likely to think that she had Bipolar Disorder when compared with the participants who read the labeled ADHD vignette.

An independent *t*-test showed that the likelihood of participants believing that Jessica had ADHD did not differ between the participants who read the labeled ADHD vignette or the labeled Bipolar Disorder vignette, $t(41) = 1.63, p = .112$.

Consistent with earlier analyses, comparisons of ADHD and Bipolar Disorder diagnostic impressions in unlabeled vignettes supported only the intended influence of child symptoms on teacher impressions. An independent *t*-test on Bipolar Disorder diagnostic impressions between ADHD unlabeled and Bipolar Disorder unlabeled conditions showed that the likelihood of participants believing that Jessica had Bipolar Disorder differed, $t(37) = -4.99, p < .001$ (see Figure 3). Participants who read the unlabeled vignette about Bipolar Disorder were more likely to believe that Jessica had Bipolar Disorder compared with the participants who read the unlabeled vignette about ADHD.

An independent *t*-test on ADHD diagnostic impressions comparing participants who read an unlabeled vignette about a student with ADHD and an unlabeled vignette about a student with Bipolar Disorder showed that the likelihood of participants believing that Jessica had ADHD also differed, $t(38) = 3.49, p = .001$. Participants who read the unlabeled vignette about ADHD were more likely to think that Jessica had ADHD compared with the group who read the unlabeled vignette about Bipolar Disorder.

In a different attempt to check the effects of disorder and label of the vignette on teacher impressions of diagnosis, teacher ratings of diagnostic likelihood were categorized as accurate, somewhat accurate, or inaccurate based on their responses to the questions about diagnostic impressions. Responses were coded as accurate if the disorder participants rated as most likely was the disorder Jessica actually had; they were coded as

somewhat accurate if participants endorsed it as the correct disorder but also ranked another disorder as having the same likelihood; and they were coded as inaccurate if the correct disorder was not included in their most likely ratings. Two chi-square tests were conducted comparing 1) disorder and 2) label against this diagnostic accuracy variable. The Chi-Square test with diagnosis and diagnostic accuracy revealed that while the participants who read about Bipolar Disorder did not differ on their ratings of diagnostic likelihood between the categories of accurate, somewhat accurate, or inaccurate, a greater percentage of the participants who read about ADHD were able to correctly identify the disorder (69.8%) as ADHD versus identifying the disorder incorrectly (18.6%) or thinking that Jessica had ADHD and another disorder (11.6%), $\chi^2(2, N = 85) = 10.443, p = .005$.

The Chi-square analysis comparing label against diagnostic accuracy was not significant, $\chi^2(2, N = 85) = .932, p = .627$. Labeled conditions were not more or less likely to be diagnosed accurately than were unlabeled conditions.

Figure 2. Bipolar Disorder and ADHD Diagnostic Impressions of Bipolar Disorder vs. ADHD Labeled Vignettes

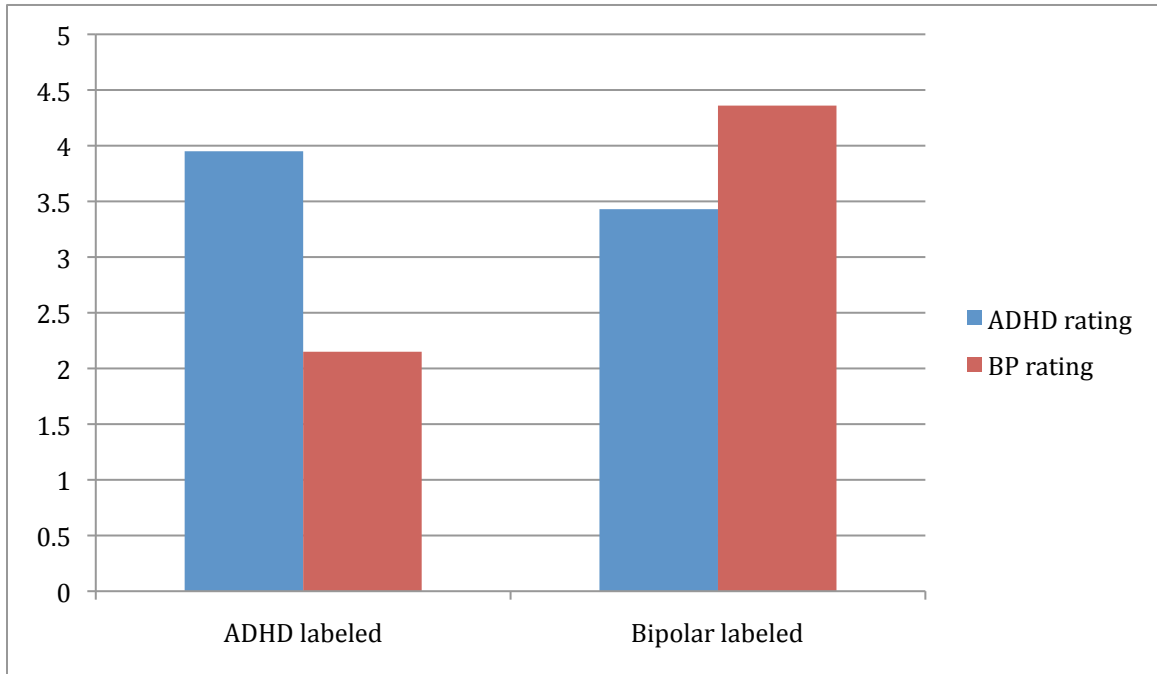
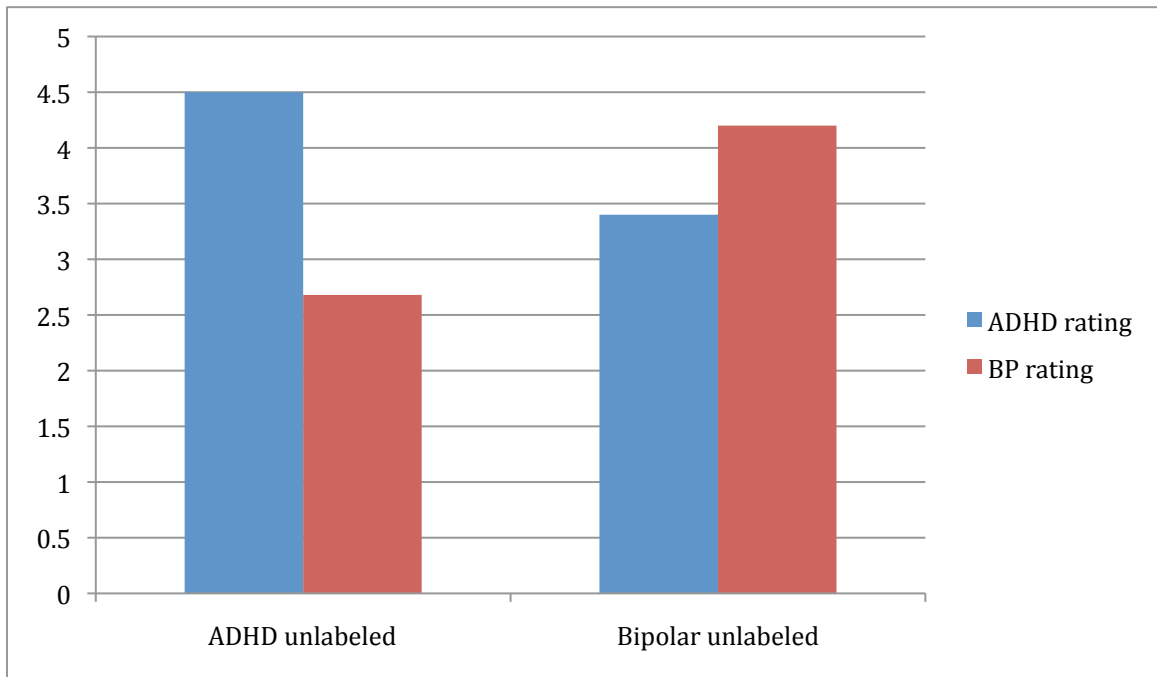


Figure 3. Bipolar Disorder and ADHD Diagnostic Impressions of Bipolar Disorder vs. ADHD Unlabeled Vignettes



Effects of Experimental Group on Selection of Causal Explanations

For ancillary analysis, a 2 (disorder) by 2 (presence of label) MANOVA was completed to examine these variables' effects on the four factors of the causal explanations. Although there were no multivariate effects, univariate between-subjects tests were examined for exploratory purposes. Disorder had a significant effect on causal factor 2 (a virus or other infection or an allergy or reaction), $F(1, 78) = 6.00, p = .017$, Eta-squared = .071. The participants who read about symptoms of Bipolar Disorder thought the cause was more likely to be infection or allergic reaction ($M = 2.182$) compared to the participants who read about a student with ADHD ($M = 1.65$). There was also a significant interaction effect for disorder and label on causal explanation factor 4 (being a nervous person or having weakness of character), $F(1, 78) = 4.45, p = .038$, Eta-squared = .054. Figure 4 shows that the participants who read the unlabeled vignette about Bipolar Disorder were more likely to think of Jessica as being a nervous person or having weakness of character ($M = 2.85$) compared to the participants who read a labeled vignette about Jessica having Bipolar Disorder ($M = 2.14$).

For the same purposes, a 2 (disorder) by 2 (presence of label) MANOVA was completed to examine these variables' effect on the likelihood that participants would endorse either psychosocial or biological causes (two broad causal factors) for Jessica's problems. Multivariate tests revealed that the only significant effect was that of disorder, Wilks's Lambda = .904, $F(2, 80) = 4.24, p = .018$, Eta-squared = .096. Label and the interaction effect of label and disorder revealed no multivariate effects. Between-subjects tests showed that disorder had a significant effect on the likelihood that participants would endorse biological causes, $F(1, 81) = 7.40, p = .008$, Eta-squared .084.

Participants who read about Jessica when she was described as having Bipolar Disorder were significantly more likely to endorse biological causes ($M = 3.20$) compared with participants who read about her having ADHD ($M = 2.79$).

For exploratory purposes, other between-subjects effects were examined revealing an interaction effect of disorder and label on participants likelihood of selecting psychosocial causal explanations, $F(1, 81) = 4.53, p = .036, \text{Eta-Squared} = .053$. As the figure shows (see Figure 5), participants who read the unlabeled vignette about Jessica having ADHD were less likely to endorse psychosocial causes as the reason for her problems ($M = 3.17$) when compared with the participants who read the labeled vignette about Jessica having ADHD ($M = 3.43$). However, when participants read the unlabeled vignette about Jessica having Bipolar Disorder, they considered her problems more likely to be caused by psychosocial causes ($M = 3.75$) compared with participants who read the labeled vignette about Jessica having Bipolar Disorder ($M = 3.34$).

Figure 4. The Influence of Disorder and Label on Weakness of Character and Nervousness Explanations

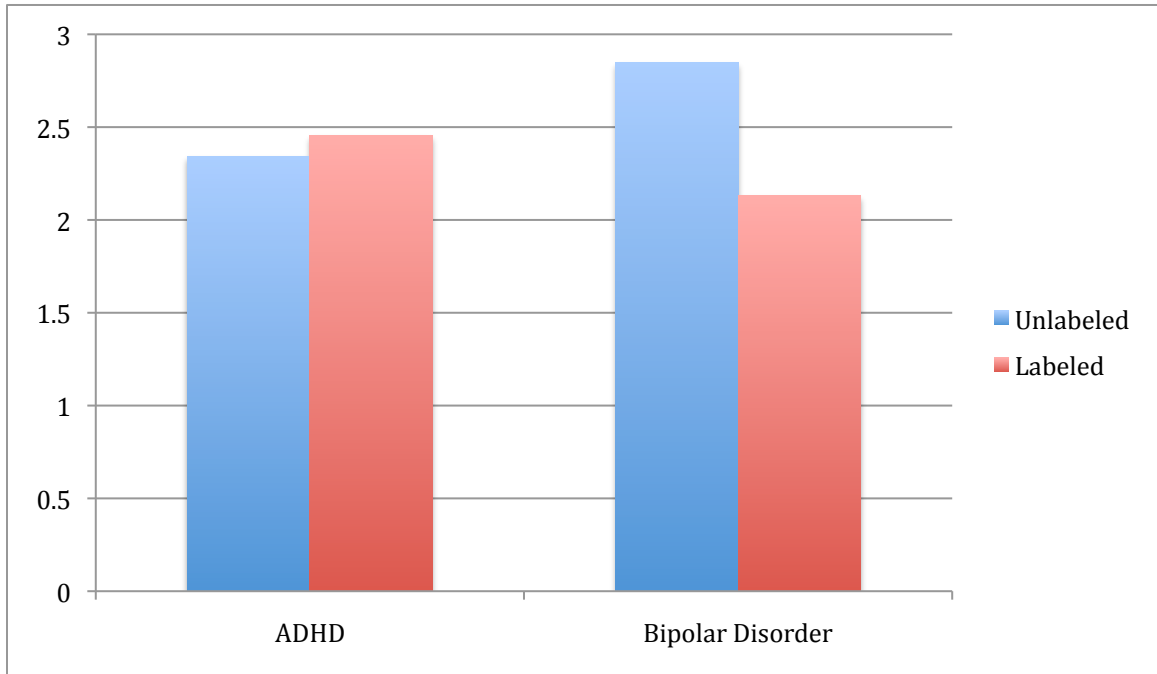
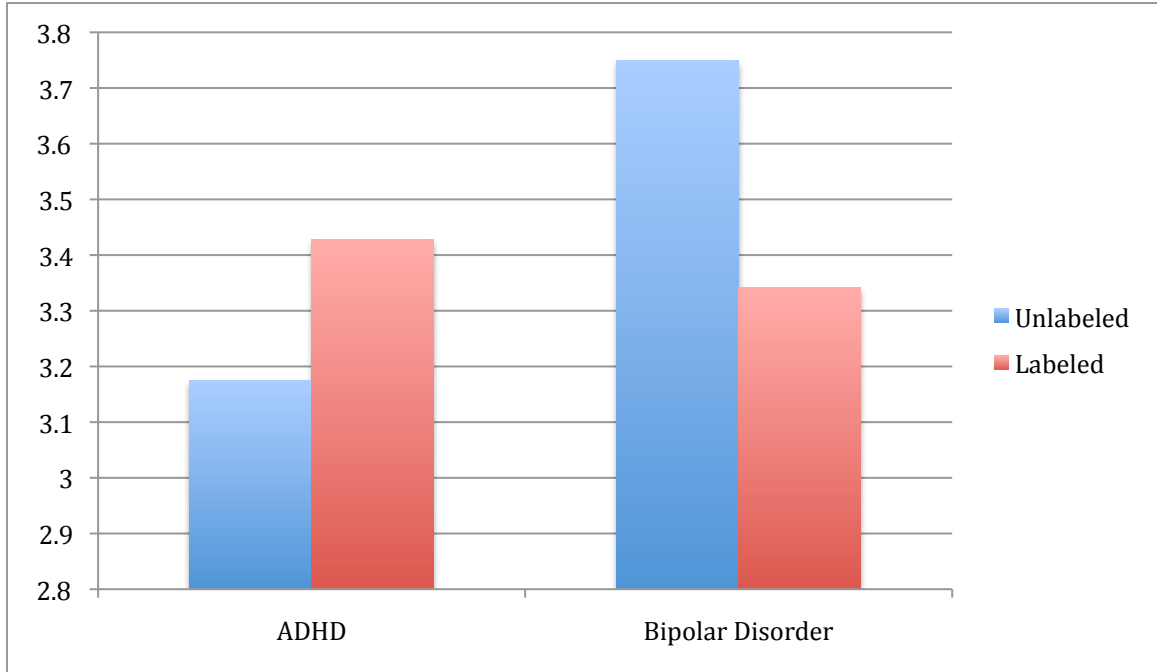


Figure 5. The Influence of Label and Disorder on Teachers' Perceptions of Psychosocial Causes



Effect of Special Education on Likelihood of Implementing Accommodations

A one-way ANOVA was completed to examine the different levels of special education background (formal, informal, and none) on the participants' mean accommodation score. The analysis was significant, suggesting an influence of special education background on the likelihood of implementing accommodations, $F(2, 78) = 3.62, p = .032$. Post-hoc Tukey tests revealed a significant difference ($p = .024$) between the participants with no background in special education and teachers who had received formal training (teaching or coursework), with formally trained teachers being significantly more likely to implement accommodations ($M = 3.90$) compared to those with no special education background ($M = 3.48$).

Effect of School-Type on Likelihood of Implementing Accommodations

Independent t -tests were completed to compare the responses of participants from day schools with those from boarding schools on the 3 subscales of accommodations and the 3 subscales of impressions of students. The only independent t -test that was both significant and passed the Levene's Test for Equality of variances revealed that type of school seemed to only have an effect on the Perceived Seriousness/Severity of Jessica's problems, $t(82) = -2.88, p = .005$. Participants from boarding schools were significantly less likely to perceive Jessica's problems as severe ($M = 3.65$) when compared with participants from day schools ($M = 4.07$).

Discussion

Using hypothetical vignettes, the present study sought to examine whether the presence or absence of a diagnostic label and whether the symptoms of ADHD or Bipolar Disorder would cause private high school teachers to choose different accommodations

for a female adolescent student or to hold different impressions of her. In addition to investigating these two questions, the study attempted to examine whether or not causal beliefs about the symptoms presented in the vignette, general opinions on mental illness, or familiarity with mental illness would be related to accommodations for or impressions of a student with ADHD or Bipolar Disorder.

The aims of this thesis were chosen in an attempt to further past research. The target school group of high schools was chosen because mental illness frequently appears during those years, and there is less research on teacher responses to high school students with mental illness. By investigating teachers from private schools, it was possible to study how teachers react to mental illness when they do not have the government mandates dictating what accommodations to provide; such flexibility is not possible in public schools. ADHD has been more frequently studied in males in the past, which is why the present study used a female character. Bipolar Disorder and ADHD were studied because of their high rate of comorbidity and misdiagnosis, and teachers are more likely familiar with ADHD and less familiar with Bipolar Disorder. These factors were used to shape the present study, its target population, the disorders of interest, and the gender of interest.

Specifically, it had been hypothesized that the presence of a diagnostic label for both disorders would cause participants to implement more accommodations for that student compared to those presented without diagnostic labels. No hypothesis was created as to how presence or absence of a diagnostic label would affect teachers' impressions of a student, but this was an important relationship of interest. Although no explicit hypothesis was made about disorder, it was expected that because of teachers'

lesser familiarity with Bipolar Disorder, they would be less comfortable with Bipolar Disorder; they were expected to see it as more severe. This severity was predicted to lead them to have greater reactions to Bipolar Disorder compared with ADHD but a lower likelihood of implementing accommodations than when participant read about ADHD because severity was linked to rejection in previous studies (Socall & Holtgraves, 1992). Also, greater familiarity with mental illness, less stigmatizing views, and endorsement of biological causal beliefs of mental illness were individually predicted to be related to more accommodations for and better impressions of the students with mental illness in the vignettes.

The Effect of Disorder and Label on Accommodations for a Student

It was predicted that labeling would lead to more accommodations than would occur when labels were absent, but there was little support for this hypothesis in multivariate tests. This was true for the subscales Assignment, Classroom, and Examination/Grading Accommodations. Exploratory univariate analyses found some support for the influence of diagnostic labeling, primarily in analyses of individual accommodations. The use of a diagnostic label made teachers significantly more likely to provide students with an early copy of the textbooks or syllabus. This type of accommodation takes more advanced planning by teachers compared to some of the other accommodations, which may suggest that the diagnostic label is what persuades teachers to provide that extra effort.

The other way label influenced accommodations was in interaction with type of disorder for permission to submit handwritten instead of typed accommodations. Teachers were more likely to give this accommodation to students with diagnosed

Bipolar Disorder compared with their unlabeled counterparts, but they were less likely to do this for students with diagnosed ADHD compared with their labeled counterparts. It could be that teachers were more likely to provide this type of accommodation for a student with diagnosed Bipolar Disorder compared with its unlabeled counterpart because they interpreted the latter as a student having normal mood fluctuations. Teachers did not seem to think in the same way about students with ADHD. They are more likely to recognize the disorder, and perhaps teachers assumed the child diagnosed with ADHD was already receiving treatment, and was therefore less in need of this accommodation. Another possibility is that teachers were reacting to the diagnostic label, and became more resistant to offering accommodations because they perceive the label to be overused, and specifically overused as a way of getting accommodations. Scitutto and Eisenberg (2007) suggested that ADHD is not overdiagnosed in technical terms (the number of false positives exceeding the number of false negatives) but they admit that the public does not agree with the idea that it is not overly diagnosed. In considering ADHD as an epidemic, Lakomski (2009) noted a potential desire for a child to gain a diagnosis of ADHD because of the accommodations that it can bring. This public conception that ADHD is used too frequently as a diagnosis along with the idea that it is a desirable diagnosis for a child so they could obtain accommodations may have led to skepticism in the teachers.

Analyses revealed that the effects of disorder were much stronger than were the effects of labeling. Although there were few multivariate effects, teachers were more likely to implement Exam/Grading and Classroom Accommodations for students with Bipolar Disorder than they were with ADHD; specifically, they were more likely to provide students with Bipolar Disorder with accommodations that allowed for use of a

tape recorder, tutoring in class materials, modified seating, provision of an incomplete instead of a failing grade, and use of adaptive computer compared with students with ADHD. This finding shows a noticeable preference of teachers in private high schools to provide accommodations for students with symptoms of Bipolar Disorder compared with students with symptoms of ADHD. Likely, teachers perceived students with Bipolar Disorder to have more severe problems compared with students with ADHD, which is why they may use accommodations to attempt to create equal education opportunities. (This concept that Bipolar Disorder was perceived as more severe than ADHD was supported in the results of this study)

It is also likely that teachers perceived students with ADHD to exhibit greater externalizing behaviors than the student with ADHD. This idea is suggested by the fact that participants who read a vignette describing a student with ADHD were moderately more likely to believe the student had Conduct Disorder compared to the participants who read the vignettes about Bipolar Disorder. This likelihood of teachers in the present study to help students with fewer externalizing behaviors is linked to the findings of Carr, Taylor, and Robinson (1991) who observed that teachers were more likely to use teaching activities with cooperative/non-problem children when compared with children who had severe behavioral problems in work settings. These findings show that teachers may be more willing to help students without externalizing problems compared with the children with severe behavioral problems, and the results of this thesis support that finding.

Clearly, these results show that label had a minor and specific, if any, effect on the reactions of teachers. This finding that label did not affect teachers is consistent with the results of Fairbanks and Stinnet (1997), which showed that diagnostic label did not

have an effect on the interventions used by teachers, school psychologists, and social workers because the three professional groups seemed to base their intervention choice on the behavioral description of a disorder; the finding that label did not affect teachers is also supported consistent with Fox and Stinnet (1996), which revealed that the externalizing behaviors described in vignettes had a greater effect than did the labels for them on school psychologists, teachers, special education teachers, and introductory psychology students. In terms of the effects of disorder, Salzer et al. (2008) had found that college students with different mental illnesses did not differ in their likelihood of seeking accommodations; however, the findings in the present study suggested that for specific accommodations, type of disorder would probably affect the likelihood that students would receive accommodations, and at what level of education. Further research could reveal what disorders are most likely to receive accommodations, which could have important implications for students with mental illnesses.

The Effect of Disorder and Label on Impressions of a Student

Analyses of the effects of disorder and label on teachers' impressions of the hypothetical student found that only disorder had a significant multivariate effect and, specifically, an effect on Emotional Reaction. Teachers were more likely to have an Emotional Reaction, including feeling more confident, stressed, or upset, with a student with symptoms of Bipolar Disorder compared with students with symptoms of ADHD. Exploratory analyses also demonstrated that participants who read the vignette about Bipolar Disorder were more likely to perceive the student's problems as more serious than the student's problems in the ADHD vignette, but the teachers were also more

confident in their ability to handle the student's problems without assistance if the students had Bipolar Disorder compared with students with ADHD.

These findings seem almost contradictory because despite finding students with Bipolar Disorder symptoms to have more serious problems, teachers felt that they could handle the problems independently. Wozniak et al. (1995) suggested that children with mania (and ADHD) had more severe presentations of their illnesses when compared to children who only had ADHD, which is linked to the present finding that teachers perceived the student with Bipolar Disorder to have more severe problems than the student with ADHD. It is relevant to this confusing combination of findings that teachers identified many accommodations that they would be more likely to use with students who had Bipolar Disorder symptoms than with students who had ADHD. Perhaps this indicates that they felt more prepared to deal with the types of problems presented by these students, even if the problem was more severe.

The ADHD vignette possibly described a student as having more externalizing behaviors compared with the vignette describing the behaviors associated with Bipolar Disorder, and these externalizing behaviors could have diminished the teachers' confidence in handling those problems on their own. This again may be related to the results of Carr et al. (1991) in that teachers were more likely to help cooperative/non-problem children compared with those who had severe behavioral problems. Thus, although teachers believed that the problems associated with Bipolar Disorder might be more debilitating for the student, these problems may have been seen as easier for teachers to handle because they are more emotional in nature, rather than behavioral. Private schools are renowned for students having close relationships with their teachers,

so teachers may feel more comfortable handling the emotional problems of students, whereas they may see the hyperactive and inattentive symptoms common to ADHD to be more challenging in the classroom.

Using the same questions to measure impressions of students as the present study, Ohan et al. (2011) found that the presence or absence of a label had effects on various subscales and specific questions. This pattern was not seen in the present study. Ohan et al. (2011) completed their study in New Zealand and most likely with public school teachers, whereas the present study was completed in the United States. Perhaps the different results reflect differences inherent to the education systems of those countries. Ohan et al. (2011) also studied elementary school teachers, and most of them were women (90%). These factors also could account for the differences observed, with elementary school teachers perhaps finding labels more informative, especially when they help clarify externalizing behaviors. These results also may be especially true in a sample of primarily female teachers, but the sample of the present study was relatively equally divided in terms of gender.

Diagnostic Impressions

After noting that the presence or absence of a diagnostic label had relatively little influence on the responses of teachers, analyses were completed to explore teachers' own diagnostic impressions of the students in the vignettes. Several findings emerged.

Multivariate tests of disorder and label revealed only an effect of disorder on diagnostic impressions. Teachers believed students with ADHD symptoms were more likely to have ADHD; students with Bipolar Disorder symptoms were more likely to have Bipolar Disorder; students with Bipolar Disorder were more likely to have Major

Depression; and students with ADHD were moderately more likely to have Conduct Disorder. All of these findings are consistent with the symptoms manipulated in the vignettes, but diagnostic label had no effect. Follow-up analyses showed that teachers viewed ADHD diagnosis as equally likely in labeled and unlabeled vignettes. Perhaps teachers are so familiar with ADHD, that the label provided no additional advantage. However, teachers also viewed Bipolar Disorder diagnosis as equally likely in labeled and unlabeled vignettes. It is unlikely that teachers were as familiar with Bipolar Disorder symptoms. Thus, other explanations were considered.

In comparisons of symptoms in the unlabeled vignettes, teachers made the appropriate diagnostic likelihood ratings; those who read about ADHD were more likely to think that Jessica had ADHD than were those who read about Bipolar Disorder; and those who read about Bipolar Disorder were more likely to think she had Bipolar Disorder compared with those who read about ADHD. These findings again support the attempt of the vignettes to properly describe the desired disorder. Labeled vignettes only followed this pattern for Bipolar Disorder diagnostic ratings; those who read about Bipolar Disorder were more likely than were participants who read about ADHD to believe that Jessica had Bipolar Disorder. However, there was no difference between the participants who read the labeled vignette about ADHD and those who read the labeled vignette about Bipolar Disorder on their likelihood of believing that the student had ADHD; this suggested that teachers thought that the child in the labeled vignettes describing Bipolar Disorder and ADHD had an equal chance of actually being diagnosed with ADHD. Perhaps both vignettes described enough behaviors that are characteristic of ADHD that teachers thought that both vignettes described a student with ADHD,

despite the diagnostic label of Bipolar Disorder. This finding is consistent with the results of Wozniak et al. (1995), which found that every child who participated in the study who had Bipolar Disorder also met criteria for ADHD except for one participant. Participants may be knowledgeable about the overlap between the two disorders, or perhaps they thought were being tested on their ability to differentiate between ADHD and Bipolar disorder. Other analyses also suggested the possibility that teachers were suspicious of the diagnostic labels provided. These complicated findings could also indicate that a vignette could be written that would better capture the symptoms of Bipolar Disorder.

In analyses of diagnostic accuracy conducted by scoring teachers' diagnostic decisions as exactly matching, partially matching, or not matching the vignette they read, teachers who read about ADHD were more likely to accurately identify ADHD as the most likely disorder whereas those who read about Bipolar Disorder did not differ in their likelihood to accurately, somewhat accurately, or inaccurately guess her diagnosis. It is likely that teachers are more familiar with ADHD and the accompanying behaviors, and this could explain why they were better at identifying it.

These findings potentially suggest that there was a problem in the way that the question what was intended to be a manipulation check was phrased. Participants seem to have seen it as an opportunity to use their knowledge of symptoms of mental disorders to say what they believed her disorder was, rather than to report on the diagnosis given to them in the vignette. Teachers were asked "in their opinion" what was the likelihood that Jessica had these different diagnoses. It would have been helpful to ask which one she had been diagnosed with in the past. The phrasing "last year, Jessica had an assessment and was diagnosed with..." may also have led them to make their own interpretations if

they thought the phrase conveyed a sense of uncertainty about the diagnosis.

Alternatively, teachers may often question the diagnoses that children share with them and focus instead on the symptoms and what they think such symptoms may suggest.

Additional Findings: Correlational Relationships

In analyses that investigated how general beliefs about mental illness, familiarity with mental illness, and belief in causal explanations of mental illnesses were correlated with the three subscales measuring impressions and three subscales measuring accommodations, a few important relationships emerged. For familiarity with mental illness, a positive finding was that greater familiarity with mental illness was correlated with both a lower Perceived Severity of students' problems and a greater likelihood of implementing Assignment Accommodations. This finding partially supported the hypothesis that greater familiarity with mental illness would be correlated with greater accommodations for and better impressions of a student compared with those who were less familiar with mental illness, but the correlations were only significant for one subscale for accommodations and impressions.

Corrigan et al. (2001) found that those who were more familiar with mental illness perceived it as less dangerous than did those who were less familiar with mental illness; this is likely related to this finding of lower Perceived Severity being correlated with greater familiarity. Additionally, Corrigan et al. (2003) found that those who were familiar with mental illness were more likely to help, which is related to teachers in the present study who were more familiar with mental illness being more likely to implement Assignment Accommodations compared with those who were less familiar with mental illness. These findings and related research suggest that if teachers are presented with

opportunities to have closer relations with people with mental illness, such relationships will lead to better perceptions of and accommodations for those students.

Causal beliefs about the students' symptoms had relations with both teacher responses and accommodations. Beliefs in more biological causes were related to higher Perceived Seriousness of the student's problems, and this was also true of the biological factor that specifically measured belief in viruses or allergic reactions. Perhaps, participants believed that problems with biological causes were more severe because they may have perceived such problems as less easily changed compared to problems that have a psychosocial explanation.

In terms of causal beliefs and accommodations, there were two significant findings. First, the belief that problems were caused by virus or infection was related to greater implementation of Examination/Grading Accommodations. When the participants believed that when the problems were due to a more external factor, (i.e., virus, infection, allergy, or reaction), they found a greater willingness to help with certain accommodations than when they believed an external factor was not the cause. Second, the belief that problems were caused by nervousness or weakness of character was related to less of an Anticipated Behavioral Response of teachers. These results may suggest that when participants believed that the student's problems were due to nonbiological factors, they would be somewhat more comfortable with her, but also somewhat less likely to give accommodations. Despite finding only two significant relationships between causal beliefs and teachers' reactions, these results somewhat mirrored the results of Wadley and Haley (2001), which suggested that when participants read about diseases that were more biological, they were more willing to help compared with illness

that they believed to have psychosocial causes. Beliefs in the specific biological cause of virus, infection, allergy, or reaction were linked to greater Examination/Grading accommodations and also greater Perceived Seriousness. This is surprising given the results of Socall and Holtgraves (1992), which suggested that participants were more likely to reject people they perceived as having a more serious illness. This discrepancy may imply that teachers find that it is part of their duty to help those who are suffering from more severe problems. When considered without further interpretation, this relationship of biological factors to greater helping behaviors reflected the findings of Wadley and Haley (2001); but when interpreted with the additional understanding that biological disorders were also interpreted as somewhat more severe, it seems the findings contradicted the results of Socall and Holtgraves (1992).

Linked to these findings about causal explanations, participants were more likely to believe that Bipolar Disorder was caused by biological causes compared with ADHD. Specifically, they believed that Bipolar Disorder was more likely caused by a virus or allergic reaction compared with ADHD, but they did not think there was a difference between the disorders in terms of believing that they were genetic or caused by a chemical imbalance. The factor that measured belief that the disorder was caused by a virus or allergic reaction could be interpreted as a more sudden or fluctuating onset, so if teachers interpreted it in the sense that it was a changing biological cause, it better explains the causes of Bipolar Disorder compared with ADHD because Bipolar Disorder has fluctuating symptoms.

In some cases, the relationship between disorder and causal beliefs depended on whether or not a diagnostic label was given. People who read the unlabeled vignette

about a student with ADHD were less likely to endorse psychosocial causes compared to those who read the labeled vignette about ADHD; the opposite was true for Bipolar Disorder. For Bipolar Disorder, participants who read the unlabeled vignette were *more* likely to endorse psychosocial causes than were those who read the labeled vignette. The finding that unlabeled description of the symptoms of Bipolar Disorder is linked to more psychosocial causes compared to the labeled description of Bipolar Disorder is related to the findings of Angermeyer and Matschinger (1996), who found that participants believed that unlabeled vignettes had more psychosocial explanations. In both studies, this finding that unlabeled vignettes are linked to psychosocial causes may be found because people may see the diagnostic label as linking the behaviors to a mental illness, and an illness may indicate a biological cause. Teachers may have found a diagnosis to be clarifying, leading them to shift from thinking about general adjustment problems to thinking about a biologically based disturbance. This concept would have been similar to the findings of Fernald and Gettys (1980), which suggested that diagnostic labels were linked to a better understanding of a child's problems. It is not clear why the opposite effect was observed for ADHD. These results likely reflect the participants' views on the causes for each disorder in general, but the outcome also highlights the difference that labeling a disorder can have in terms of what people think of as the cause of problems for those with mental illness.

The Relationship of Training and Type of School on Teacher Responses

Finally, analyses were completed to investigate whether certain background characteristics were related to different teacher responses to students in the vignettes and to their use of accommodations. The effect of type of school, whether boarding and day

or only day, was examined on the three subscales of both the accommodations and impressions measure, and the effect of level of special education training, formal, informal, or none, was examined on the mean accommodation score. Teachers who taught at schools with both boarding and day students perceived the hypothetical student's problems as less severe than did teachers who taught at schools with only day students. It could be that full spectrum (day and boarding) private schools, or at least some of them, more commonly serve youth with a range of emotional/behavioral problems, or that those teachers have greater exposure to student behavior problems that occur both inside and outside of the classroom. In comparison, Jessica's classroom behavior problems may have seemed manageable.

Ohan et al. (2011) found that teachers with training were willing to implement accommodations regardless of whether or not the student had a diagnostic label; the findings in the present study were related to those results of Ohan et al. (2011) in the sense that teachers with formal training in teaching special education were more likely to implement accommodations (measured by an overall score) than were those with informal or no special education training. This result was for both labeled and unlabeled students, which mirrored the willingness of the participants in Ohan et al. (2011). Interestingly, Ohan et al. (2011) did not note a significant difference in the level of training on the willingness to help, whereas the results in this study did.

These findings could have implications for parents who are trying to decide where to send their students to school or whether to request specific teachers that may help their children reach their potential; if seeking to have their child's problems seen as less severe, parents may wish to consider sending them to a school where the teachers teach both day

and boarding students. Further, if parents wish their children to receive accommodations related to their mental illness, they should request teachers who have received formal special education training.

Summary

The hypothesis that use of diagnostic label would be related to more positive impressions of and better accommodations for a student with mental illness than when no label was used was largely unsupported. Instead, results demonstrated that the actual symptoms presented (with or without diagnostic label) were more likely to affect teachers' responses than was the presence or absence of a label. It appears that these private school teachers are likely to make accommodations as they see fit based on the behaviors presented in the classroom, and that diagnostic label will not change this likelihood. One participant in an email reported this reaction after completing the study saying that he did not care if a student had a diagnosis, but that he always made accommodations to fit the specific needs of students. This reaction and guiding principle may be common among teachers at private high schools, which would explain why they were not influenced by label, and may have in fact ignored or questioned labels when they were presented.

Although these findings did not support the main hypothesis about labeling, they may reflect the findings in some of the literature, specifically those of Fairbanks and Stinnet (1997) and Fox and Stinnet (1996), which suggested that teachers and participants in similar situations were not affected by labels. The lack of impact of diagnostic labeling contradicted the findings of Ohan et al. (2011), and many other studies that have demonstrated effects of diagnostic labeling, such as Corrigan (2007), Fernald and Gettys (1980), Wadley and Haley (2001), and Jastrowski et al. (2007). Therefore, the findings

of this study were more supportive of those studies indicating that diagnostic labeling does not have an influence on people, compared with the research that has found that diagnostic labeling has an effect on others.

Limitations

Although the current study extended past research by focusing on private school teachers, Bipolar Disorder versus ADHD symptoms, and the effects of diagnostic labeling on accommodations for and impressions of a female student, many improvements could be made to the study. First, although it was useful to study private school teachers because they are accustomed to deciding accommodations for students without the same federal special education mandates that public high school teachers have, a comparison sample of public school teachers would have been useful. This addition would have made it possible to compare similarities and differences between the two types of high schools, and make more definitive conclusions about how teachers working in different types of educational environments respond to students with mental illness. Second, all teachers were recruited from schools in New England. Thus, results may not generalize to teachers in other parts of the US. Third, recruiting procedures differed over schools with some schools allowing the researcher to contact each teacher with the choice of taking the study, others allowing the school itself to contact each teacher with the choice of taking the study, and with still others presenting the study to teachers in some manner and only allowing contact from the researcher to teachers if teachers specifically requested to take the study. It would have been ideal for all recruitment procedures to be identical, as the different recruiting procedures may have led to samples with somewhat different characteristics and were not completed at

random. Fourth, it would have been helpful to have eight vignettes, adding the variable of gender. In this study, we anticipated that there would not be enough participants to run eight conditions.

Fifth, because analyses revealed that the accommodations implemented by teachers with or without special education experience differed, more information about teachers' special education background and experience would have been helpful to further examine these effects. Less subjective divisions in this category may be necessary in the future instead of the open-ended response that was used in this thesis.

Sixth, all schools have their own culture, and this is true of private schools as well. While most are known for their strong academics, there are differences in the way schools are run. In some schools, teachers provide feedback daily as to how the student is doing; in other schools, many students are enrolled in programs that are intended to enhance study skills regardless of mental illness. These differences in the culture of schools could have created differences in the results, but it was not possible to analyze the data by school due to the modest numbers of participants from any given school.

Finally, it would have been helpful to have a clearer manipulation check for diagnostic label. It seems that phrasing of the "manipulation check" question as "If you had to assess whether this student in the description has a mental disorder, which diagnosis would seem most likely for Jessica?" led teachers to believe that they were supposed to think independently about what they read and suggest possible mental diagnoses without relying on the diagnosis that may have been given. This approval seems to have been the mindset of participants because those who read labeled vignettes for both Bipolar Disorder and ADHD still selected other disorders as possibilities for

Jessica. A better way to ask the question could be “Has Jessica received a diagnosis? If so, which one? If not, which disorder do you think would be most appropriate to describe her symptoms?” Each disorder could be presented in a drop-down menu, so that the participant would only be able to select one disorder as the one they read about for Jessica. The findings previously presented demonstrated that teachers responded differently to the two disorders in the study, but the attempt at a manipulation check could not definitely confirm whether or not they thought the disorders were ADHD and Bipolar Disorder.

Future Directions

The author of the present study is interested in discovering if there are differences between public and private high school teachers in their impressions of students with mental illness and also whether or not they would implement accommodations for those students. Future research could address this issue by using the same vignettes and questionnaires with public school teachers.

Additionally, using a greater number of experimental groups and more types of disorders could extend this study. Literature that was presented in the review researched on participants' reactions to various types of disorder, and this studied a different combination of disorders as well. This change would be exciting, especially because many of the significant results were due to the effects of which disorder was portrayed in the vignette. This type of study would be especially relevant to do following the release of the upcoming *DSM -V* because researchers are considering the idea that Bipolar Disorder may be overdiagnosed in children, and attempting to offer other diagnostic

possibilities (e.g., Disruptive Mood Regulation Disorder) for a similar cluster of symptoms that may be caused by different factors.

Other factors could be manipulated in additional follow-up studies. One possibility is to have one group read a vignette that states that Jessica was taking medication for her mental illness. To participants, medication may denote a different level of severity than a diagnosis alone, but it may also lead teachers to think that she would not need accommodations because she was already receiving treatment. Using the presence of medication as an independent variable is important to include, especially in the United States' at present, where it is common for children to be prescribed medication when diagnosed with one of these disorders.

There are many ways that future studies could be created to study similar variables in a way that could compliment or supplement the current thesis. Different populations, presentations of the variables, measures of assessment, or analyses completed could all add new depth to the literature.

Conclusion

This study was designed to investigate the effects of vignettes representing labeled and unlabeled descriptions of a student with Bipolar Disorder or ADHD on private high school teachers' accommodations for and impressions of the student. This research demonstrated that when forming impressions of and making potential accommodations for students with symptoms of Bipolar Disorder or ADHD, the use of diagnostic label had little influence on private high school teachers; instead the type of disorder that was featured in the vignette that they read more frequently affected teachers.

Teachers were more likely to make accommodations for students with Bipolar

Disorder than ADHD in this study; this difference in reaction to different disorders could occur because teachers perceive students with Bipolar Disorder to have more severe problems, as suggested by exploratory findings. Type of school and training in special education were also related to different responses of teachers, which suggest that training and school philosophy may be important factors to consider when investigating how teachers and schools could be more helpful to and supportive of students with mental illness. Familiarity with mental illness and beliefs in certain causes were also related to increased accommodations for and more positive impressions of students, suggesting other areas of consideration when contemplating teacher training to support students with mental illness.

The findings suggest that diagnostic labels may not have a significant effect on the likelihood that private high school teachers would implement accommodations; the participants in this study were infrequently affected by the presence or absence of a diagnostic label. This finding that diagnoses do not seem to affect private high school teachers could mean that under certain circumstances, students may not need to disclose the specific nature of their problems to receive the same support from teachers. Without the need to disclose a diagnosis, students may be protected from stigma that can accompany such disclosure of a mental illness. Future research in this area can reveal if this is the case for private high schools, all private schools, or all high schools. These findings also revealed differences in the way teachers would act toward a student with Bipolar Disorder and ADHD, and perhaps more training and education on those disorders could lead teachers to act in a more uniform way. The findings of this study and future

studies in this field could lead to important insights about how to help students receive fair and equal education if they have a mental illness.

References

- American Academy of Child & Adolescent Psychiatry (2008). Bipolar disorder in children and teens. *American Academy of Child & Adolescent Psychiatry*. Retrieved from: <http://aacap.org/page.wv?name=Bipolar+Disorder+In+Children+And+Teens§ion=Facts+for+Families>
- American Academy of Child and Adolescent Psychiatry. (2008). Children who can't pay attention/ADHD. *Facts for Families* http://www.aacap.org/cs/root/facts_for_families/children_who_cant_pay_attention/attention_deficit_hyperactivity_disorder
- Angermeyer, M. C., & Matschinger, H. (1996). The effect of diagnostic labeling on the lay theory regarding schizophrenic disorders. *Social Psychiatry and Psychiatric Epidemiology*, 31. doi: 10.1007/BF00783419
- Arnold, L. E. (1996). Sex differences in ADHD: Conference summary. *Journal of Abnormal Child Psychology*, 24, 555-569. doi: 10.1007/BF01670100
- Becker, M., Martin, L., Wajeeh, E., Ward, J., & Shern, D. (2002). Students with mental illness in a university setting: Faculty and student attitudes, beliefs, knowledge, and experiences. *Psychiatric Rehabilitation Journal*, 25, 359- 368.
- Borinstein, A. B. (1992). Public attitudes toward persons with mental illness. *Health Affairs*, 11 (3), 186-196.
- Carr, E. G., Taylor, J. C., & Robinson, S. (1991). The effects of severe behavioral problems in children on the teaching behavior of adults. *Journal of Applied Behavior Analysis*, 24, 523- 535.

- Corrigan, P. W. (2007). How clinical diagnosis might exacerbate the stigma of mental illness. *Social Work, 52* (1), 31-39.
- Corrigan, P. W., Green, A., Lundin, R., Kubiak, M. A., & Penn, D. L. (2001). Familiarity with and social distance from people who have serious mental illness. *Psychiatric Services, 52*, 953-958.
- Corrigan, P., Markowitz, F. E., Watson, A., Rowan, D., & Kubiak, M. A. (2003). An attribution model of public discrimination towards persons with mental illness. *Journal of Health and Social Behavior, 44*(2), 162-179.
- Corrigan, P., Markowitz, F., Watson, A., Rowan, D., & Kubiak, M. (2003). An attribution model of public discrimination towards persons with mental illness. *Journal of Health and Social Behavior, 44*, 162-179. doi: 10.2307/1519806
- Dodson, W. (2000). ADHD and bipolar disorder. *ADDvance Magazine, (5)*.
- Fairbanks, L. D., & Stinnet, T. A. (1997). Effects of professional group membership, intervention type, and diagnostic label on treatment acceptability. *Psychology in Schools, 4*, 329- 335. doi: 10.1002/(SICI)1520-6807(199710)34:4<329::AID-PITS4>3.0.CO;2-G
- Fernald, C. D., & Gettys, L. (1980). Diagnostic labels and perceptions of children's behavior. *Journal of Clinical Child Psychology, 9*, 229- 233. doi: 10.1080/15374418009532996
- Fox, J. D., & Stinnet, T. A. (1996). The effects of labeling bias on prognostic outlook for children as a function of diagnostic label and profession. *Psychology in the Schools, 3*, 143-152. doi: 10.1002/(SICI)1520-6807(199604)33:2<143::AID-PITS7>3.0.CO;2-S

- Gaub, M., & Carlson, C. L. (1997). Gender differences in ADHD: A meta-analysis and critical review. *Journal of the American Academy of Child and Adolescent Psychology, 36*, 1036-1045.
- Harpin, V. V. A. (2005). The effect of ADHD on the life of an individual, their family, and community from preschool to adult life. *Archives of Disease in Childhood, 90*. doi: 10.1136/adc.2004.058842
- Hindes, Y., & Mather, J. (2007). Inclusion education at the post-secondary level: attitudes of students and professors. *Exceptionality Education Canada, 17* (1), 107-128.
- Hinshaw, S. P. (2007). *The mark of shame: Stigma of mental illness and an agenda for change*. Oxford University Press: USA.
- Individuals with disabilities education act (IDEA)*. 2011, from http://www.dlrp.org/html/guide_to/idea.html
- Jastrowski, K. E., Berlin, K. S., Sato, A. F., & Davies, W. H. (2007). Disclosure of attention-deficit/hyperactivity disorder may minimize risk of social rejection. *Psychiatry: Interpersonal & Biological Processes, 70*(3), 274-282.
- Jorm, A. F., & Griffiths, K. M. (2008). The public's stigmatizing attitudes towards people with mental disorders: How important are biomedical conceptualizations? *Acta Psychiatrica Scandinavica, 118*, 315-321. doi: 10.1111/j.1600-0447.2008.01251.
- Kranke, D., & Floersch, J. (2009). Mental health stigma among adolescents: Implications for school social workers. *School Social Work Journal, 34*, 28- 42.
- Lakomski, C. (2009). ADHD as an epidemic. *New York University: Medical Dialogue Review, 4*, 24 – 29.
- Link, B. (1982). Mental patient status, work, and income: An examination of the effects

of a psychiatric label. *American Sociological Review*, 47 (2), 202-215.

- Link, B. B. G. (1999). Public conceptions of mental illness: Labels, causes, dangerousness, and social distance. *American Journal of Public Health (1971)*, 89, 1328-1333.
- Markowitz, F. E. (2005). Sociological models of mental illness stigma: Progress and prospects. *On the stigma of mental illness: Practical strategies for research and social change*. Washington, DC: American Psychological Association.
- Martin, J. K., Pescosolido, B. A., & Tuch, S. A. (2000). On fear and loathing: The role of 'disturbing behavior,' labels, and causal attributions in shaping public attitudes toward people with mental illness. *Journal of Health and Social Behavior*, 41 (2), 208-223.
- Ohan, J. L., Visser, T. A. W., Strain, M. C., & Allen, L. (2011). Teachers' and education students' perceptions of and reactions to children with and without the diagnostic label 'ADHD'. *Journal of School Psychology*, 49, 81-105. doi: 10.1016/j.jsp.2010.10.001
- Pescosolido, B. A. (2007). Culture, children, and mental health treatment: Special section on the National Stigma Study – Children. *Psychiatric Services*, 58, 611-612.
- Pescosolido, B. A., Jensen, P. S., Martin, J. K., Perry, B. L., Olafsdottir, S., & Fettes, D. (2008). Public knowledge and assessment of child mental health problems: Findings from the National Stigma Study- Children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 47, 339- 349. doi: 10.1097.chi.0b013e318160e3a0

- Rickerson, N., Souma, A., & Burgstahler, S. (2004). Psychiatric disabilities in postsecondary education: Universal design, accommodations, and supported education. *National Center on Secondary Education and Transition*.
- Rosack, J. (2002). Bipolar disorder often misdiagnosed in children, expert says. *American Psychiatric Association: Psychiatric News*, 37(13), 26.
- Rosenfeld, S. (1997). Labeling mental illness: The effects of received services and perceived stigma on life satisfaction. *American Sociological Review*, 62, 660-670.
- Salzer, M. S., Wick, L. C., & Rogers, J. A. (2008). Familiarity with and use of accommodations and supports among postsecondary students with mental illnesses. *Psychiatric Services*, 59(4), 370-375. doi:10.1176/appi.ps.59.4.370
- Sciutto, M. J., & Eisenberg, M. (2007). Evaluating the evidence for and against the overdiagnosis of ADHD. *Journal of Attention Disorders*, 11 (2), 106 – 113. doi: 10.1177/1087054707300094
- Socall, D. W., & Holtgraves, T. (1992). Attitudes toward the mentally ill: The effects of label and beliefs. *The Sociological Quarterly*, 33, 435-445.
- Souma, A., Rickerson, N., & Burgstahler, S. (2006). Academic accommodations for students with psychiatric disabilities. DO-IT (Project): University of Washington.
- Thinkbabynames.com
- Wadley, V. G., & Haley, W. E. (2001). Diagnostic attributions versus labeling: Impact of Alzheimer's Disease and Major Depression diagnoses on emotions, beliefs, and helping intentions of family members. *Journals of Gerontology*, 56B (4), 244-252.
- Wozniak, J., Biederman, J., Kiely, K., Ablon, J. S., Faraone, S. V., Mundy, E., & Menin, D. (1995). Mania-like symptoms suggestive of childhood-onset Bipolar Disorder

in clinically referred children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 867-876.

Wright, A., Jorm, A. F., & Mackinnon, A. J. (2011). Labeling of mental disorders and stigma in young people. *Social Science & Medicine*. doi:
10.1016/j.socscimed.2011.06.01

Appendix A: Letter to Heads of Schools

SARA SAYLES KERNEY

Box 3974, Connecticut College • 270 Mohegan Avenue • New London, CT 06320 • (207) 504-7109
139 Ash Street • Winchendon, MA 01475 • skerney@conncoll.edu

Date

Dear Mr. or Mrs. LAST NAME:

As a graduate of a private school, I realize the great benefits that such an education can bring students. I also grew up as a child with various family members working in different roles in education, and these relationships have shown me the dedication of teachers and schools to enlightening their students in the best way possible. As I have grown as a student majoring in Psychology at Connecticut College, I have developed a similar devotion to studying emotional and behavioral adjustment in adolescents. My knowledge of the benefits of independent schools and my interest in helping students overcome emotional and behavioral difficulties has led me to develop a thesis investigating what knowledge about a student can lead teachers to provide the best possible instruction and support. My hope is to learn whether different types of information about a student with emotional and behavioral difficulties can lead to more compassion and better accommodations for that student.

This study is the reason that I am contacting you; I am hoping that you will grant me permission to reach out to teachers at your independent school and request their participation in my study. My study has been evaluated by the Institutional Review Board at Connecticut College and has been approved. With your permission, I would send the teachers the link to study via email, as it is an online survey form. As I am aware of the busy lives of teachers, I wanted to provide an incentive for teachers to participate; if the teacher chooses to do so, he/she may provide his/her email address at the end of the survey to be entered in a raffle to win 1 of 3 American Express gift certificates for \$50. After I have completed the study, I would be more than happy to provide you with the results in the hope they may provide some insight into how teachers evaluate and work with students with emotional and behavioral difficulties.

Thank you for your consideration of my project. Attached, you will find the forms, a description, and questions that your teachers would see in an online survey format for your consideration. I would greatly appreciate your permission to contact the teachers at your school to ask them to participate in my study. If you decide that you will allow your faculty to participate, I would like to request a list of teachers' email addresses or a location where I could access all email addresses. Please contact me at skerney@conncoll.edu to let me know your decision, or to ask any questions you may have. If you have questions for my advisor, please contact Professor Audrey Zakriski, Department of Psychology, at alzak@conncoll.edu. I will follow up with an email in a few days.

Sincerely,

Sara Kerney

Appendix B: Letter to Potential Participants

SARA SAYLES KERNEY

Box 3974, Connecticut College • 270 Mohegan Avenue • New London, CT 06320 • (207) 504-7109
139 Ash Street • Winchendon, MA 01475 • skerney@conncoll.edu

Date

Dear Mr. or Mrs. LAST NAME:

Currently, I am a senior at Connecticut College and am completing a thesis about students with emotional and behavioral difficulties in private high schools. I went to a private high school, and my current interests include improving adolescent mental health in school settings. I have received permission from Connecticut College's Institutional Review Board and your head of school to complete the study and contact you. Your participation is completely optional.

I am writing to you to ask you to participate in my study. It is in the form of an online survey that follows a paragraph description of a student in a high school. The questions should take approximately 15 to 20 minutes to complete. At any time during the study, you can choose to decline to answer a question if you so choose or stop participating. Because I recognize your busy schedule and want to show my appreciation participants will have the opportunity to enter a raffle to win 1 of 3 American Express gift certificates for \$50.

Your answers for this study will remain anonymous. Even if you choose to submit your email to be entered in the raffle, your name will not be connected in any way to the results or your responses. To benefit the school and teachers that participate, a summary of results will be sent to the schools. School differences may be observed, but there will be no way of identifying participants or how they responded. The results of this study will hopefully enrich our understanding of students with emotional and behavioral difficulties in high school settings.

If you are interested in participating, the study can be accessed here: INSERT LINK
ONCE CREATED

Thank you for considering this request to participate in my study. Please contact me at skerney@conncoll.edu if you have any questions. If you have questions for my adviser, please contact Professor Audrey Zakriski at alzak@conncoll.edu. I will follow up with email reminders over the next few weeks.

Sincerely,

Sara Kerney

Appendix C: Informed Consent

Informed Consent

- I hereby consent to participate in Sara Kerney's research about students with emotional and behavioral difficulties in private high schools.
- I understand that this research will involved reading a short description of a student and then answering questions.
- While I understand that the direct benefits of this research to society are not known, I have been informed that it may help private high school students in the future.
- I understand that this research will take about 20 minutes.
- I have been told that there are no known risks or discomforts related to participating in this research.
- I have been told that Sara Kerney can be contacted at (207) skerney@conncoll, or her advisor, Audrey Zakriski, can be reached at alzak@conncoll.edu .
- I understand that I may decline to answer any questions as I see fit, and that I may withdraw from the study without penalty at any time.
- I understand that all information will be identified with a code number and NOT my name.
- I have been advised that I may contact the researcher who will answer any questions that I may have about the purposes and procedures of this study.
- I understand that this study is not meant to gather information about specific individuals and that my responses will be combined with other participants' data for the purpose of statistical analyses.

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- I consent to publication of the study results as long as the identity of all participants is protected.
- I understand that this research has been approved by the Connecticut College Human Subjects Institutional Review Board (IRB).

Concerns about any aspect of this study may be addressed to Professor Ann Devlin, Chairperson of the Connecticut College IRB (860) 439-2333.

I am at least 18 years of age, and I have read these explanations and assurances and voluntary consent to participate in this research about students with emotional and behavioral difficulties in private high schools.

[CLICK HERE](#) to indicate your consent to participate and to begin the study

Appendix D: Vignettes

Please thoroughly read this description of a student so you are able to answer the questions following this statement.

Vignette 1

Jessica is a 16-year-old girl. Jessica's teacher describes her as always moving, from squirming in her seat to wandering around the classroom, chattering endlessly instead of doing her work. Her teacher says that Jessica doesn't do what she asks her to do, such as cleaning out her desk, despite her constant instructions. She starts work late because she often misplaces what she needs. While doing her work, she gets side-tracked into doing something else and turns in her work without checking. According to her parents, Jessica never seems to focus on what they say or ask of her, even when they repeat themselves. Her behavior with others her age is similar. She often intrudes on what they are doing, and doesn't wait for her turn or concentrate on what's happening in their conversations.

Vignette 2

Jessica is a 16-year-old girl. Jessica's teacher describes her as always moving, from squirming in her seat to wandering around the classroom, chattering endlessly instead of doing her work. Her teacher says that Jessica doesn't do what she asks her to do, such as cleaning out her desk, despite her constant instructions. She starts work late because she often misplaces what she needs. While doing her work, she gets side-tracked into doing something else and turns in her work without checking. According to her parents, Jessica never seems to focus on what they say or ask of her, even when they repeat themselves. Her behavior with others her age is similar. She often intrudes on what they are doing, and doesn't wait for her turn or concentrate on what's happening in their conversations.

Last year, Jessica had an assessment and was diagnosed with Attention Deficit-Hyperactivity Disorder (ADHD).

Vignette 3

Jessica is a 16-year old girl. Jessica's teacher describes her as moody, sometimes being very sad and down for long stretches, occasionally for weeks at a time. Other times, she seems ecstatic and is extremely self-confident about her abilities for a couple of days. And still other days, Jessica can be irritable. Her teacher says that she often talks very fast and loudly, about new projects and interests that she wants to pursue. It is difficult to interrupt her or get her to discuss a different topic. Sometimes, she is unable to think clearly or thinks that many things are funny for no reason. She occasionally acts recklessly or dresses provocatively without thinking about possible consequences. According to her parents, Jessica experiences trouble with sleeping, sometimes not sleeping at all but still being full of energy. She can be overactive and impulsive in the classroom, unable to focus on one activity.

Vignette 4

Jessica is a 16-year old girl. Jessica's teacher describes her as moody, sometimes being very sad and down for long stretches, occasionally for weeks at a time. Other times, she seems ecstatic and is extremely self-confident about her abilities for a couple of days. And still other days, Jessica can be irritable. Her teacher says that she often talks very fast and loudly, about new projects and interests that she wants to pursue. It is difficult to interrupt her or get her to discuss a different topic. Sometimes, she is unable to think clearly or thinks that many things are funny for no reason. She occasionally acts recklessly or dresses provocatively without thinking about possible consequences. According to her parents, Jessica experiences trouble with sleeping, sometimes not sleeping at all but still being full of energy. She can be overactive and impulsive in the classroom, unable to focus on one activity. Last year, Jessica had an assessment and was diagnosed with Bipolar Disorder.

Appendix F: Accommodations for Students

Imagine that Jessica were a student in your class. How likely would you be to provide her with the following accommodations?

1. Extended time to complete assignments

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

2. Advance notice of assignments

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

3. Substitute assignments in specific circumstances

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

4. Assignments completed in dramatic formats (that is, demonstration or role play)

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

5. Written assignments instead of oral presentations or vice versa

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

6. Permission to submit assignments handwritten rather than typed

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

7. Private one-on-one meetings with a teacher

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

8. Use of a tape recorder permitted in class

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

9. Tutoring in course materials

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

10. Use of notetaker or able to photocopy another's notes

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

11. Modified or preferential seating arrangements, such as near the door or in the front of the classroom

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

12. Prearranged or frequent breaks

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

13. Early availability of syllabus and textbooks

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

14. Availability of course materials (that is, lectures or handouts) on disk

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

15. Assigned classmate as a volunteer assistant

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

16. Provision of a grade of Incomplete (I) rather than a Fail (F) if relapse occurred

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

17. Extended time for test taking

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

18. Exam in a separate, quiet, and non-distracting room

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

19. Exam in alternate format (that is, from multiple-choice to essay or oral, presentation, role play or portfolio)

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

20. Use of adaptive computer software

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

21. Increased frequency of exams

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

Appendix G: Causal Explanations

There are many people in the community who suffer from problems like Jessica's. The next few questions are about possible causes of this sort of problem developing in anybody.

How likely do you think each of the following is be a reason for such problems?

1. A virus or other infection

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

2. An allergy or reaction

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

3. Day to day problems such as stress, family arguments, difficulties at work or financial difficulties

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

4. The recent death of a close friend or relative

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

5. Some recent traumatic event such as a house fire, a severe traffic accident, or being mugged

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

6. Problems from childhood such as being badly treated or abused, losing one or both parents when young, or coming from a broken home

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

7. Inherited or genetic

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

8. Being a nervous person

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

9. Having weakness of character

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

10. Chemical imbalance

1 ----- 2 ----- 3 ----- 4 ----- 5
 Very unlikely Very likely

Appendix H: General Attitudes about Mental Illness

Please read the following statements and select the degree to which they relate to how you feel and think.

1. Virtually anyone can become mentally ill.
 1 ----- 2 ----- 3 ----- 4 ----- 5
 Strongly disagree Strongly agree

2. There is still a lot of stigma attached to mental illness.
 1 ----- 2 ----- 3 ----- 4 ----- 5
 Strongly disagree Strongly agree

3. Most people with serious mental illness can, with treatment, get well and return to productive lives.
 1 ----- 2 ----- 3 ----- 4 ----- 5
 Strongly disagree Strongly agree

4. In most cases, keeping up a normal life in the community will help a person with mental illness get better.
 1 ----- 2 ----- 3 ----- 4 ----- 5
 Strongly disagree Strongly agree

5. The mentally ill are far less of a danger than most people believe.
 1 ----- 2 ----- 3 ----- 4 ----- 5
 Strongly disagree Strongly agree

6. Having a mental illness is no different from having any other kind of illness.
 1 ----- 2 ----- 3 ----- 4 ----- 5
 Strongly disagree Strongly agree

7. I don't believe mental illness can really be cured.
 1 ----- 2 ----- 3 ----- 4 ----- 5
 Strongly disagree Strongly agree

8. People with chronic mental illnesses are, by far, more dangerous than the general population.
 1 ----- 2 ----- 3 ----- 4 ----- 5
 Strongly disagree Strongly agree

9. Mental health facilities should be kept out of residential neighborhoods.
 1 ----- 2 ----- 3 ----- 4 ----- 5
 Strongly disagree Strongly agree

10. The best way to handle the mentally ill is to keep them behind locked doors.
 1 ----- 2 ----- 3 ----- 4 ----- 5
 Strongly disagree Strongly agree

Appendix I: Familiarity with Mental Illness

Please indicate the answer that best describes your personal experiences.

1. My job involves providing services/treatment for persons with mental illness.
 - Yes
 - No
2. I have observed, in passing, a person I believe may have had a mental illness.
 - Yes
 - No
3. I have observed persons with a mental illness on a frequent basis.
 - Yes
 - No
4. I have worked with a person who had a mental illness at my place of employment.
 - Yes
 - No
5. A friend of the family has a mental illness.
 - Yes
 - No
6. I have a relative who has a mental illness.
 - Yes
 - No
7. I live with a person who has a mental illness.
 - Yes
 - No

Appendix J: Demographics and Manipulation Check

Age: _____

Circle one:

Sex: Male

Female

Race: American Indian or Alaska Native

Asian

Black or African American

Native Hawaiian or Other Pacific Islander

White

Ethnicity: Hispanic or Latino

Not Hispanic or Latino

What school do you work at?

What grade(s) do you teach or have taught?

Do you have any background with special education? If so what?

If you had to assess whether this student in the description has a mental disorder, which diagnosis would seem most likely for Jessica?

Attention Deficit Hyperactivity Disorder (ADHD)

1 ----- 2 ----- 3 ----- 4 ----- 5
Very unlikely Very likely

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Bipolar Disorder

1 ----- 2 ----- 3 ----- 4 ----- 5
Very unlikely Very likely

Conduct Disorder

1 ----- 2 ----- 3 ----- 4 ----- 5
Very unlikely Very likely

Major Depression

1 ----- 2 ----- 3 ----- 4 ----- 5
Very unlikely Very likely

Oppositional Defiant Disorder

1 ----- 2 ----- 3 ----- 4 ----- 5
Very unlikely
Very likely

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If you would like to be entered to win 1 of 3 American Express gift certificates for \$50, please enter your email below. Your responses will remain separate from this email address. I will use the email to contact you if you win and make a plan for sending the gift certificate. _____