

**UNDERREPRESENTATION OF HISPANIC/LATINO STUDENTS IDENTIFIED  
WITH EMOTIONAL DISTURBANCE IN IDEIA:  
WHAT'S THE TEACHER'S ROLE?**

A Dissertation

by

IDALIA MASSA

Submitted to the Office of Graduate Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2011

Major Subject: School Psychology

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## ABSTRACT

Underrepresentation of Hispanic/Latino Students Identified  
with Emotional Disturbance in IDEIA: What's the Teacher's Role? (August 2011)

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Historically, Hispanic/Latino (H/L) students have been under-referred, under-identified, and under-served by the U.S. Special Education (SPED) system, particularly under the emotional behavioral disturbance (EBD) category. This finding is alarming given that numerous federal sources report that H/L students continue a disturbing trend of struggling academically as well as being at a higher risk for poor mental health outcomes such as elevated levels of depression, anxiety, and suicidality when compared to their peers. Unfortunately, the existing mental health and education literature on H/L students provides limited guidance in understanding the disproportionate underrepresentation of H/L in the EBD category of the SPED system; an underrepresentation well-documented in the report to congress on the implementation of the *Individuals with Disabilities Education Improvement Act (IDEIA)*.

Using survey methods, the purpose of this study was to shed light on the possible mediating role teachers' perceptions have on the SPED referral and identification decisions by looking at teacher ratings of risk for EBD-like behaviors of students across behavioral conditions (i.e., internalizing versus externalizing types of behaviors) and

across ethnic/racial groups (i.e., White, African Americans, and H/L students) using a response-to-intervention framework.

Using the Qualtrics software, an online survey tool, 114 self-selected pre-service teachers were surveyed; data was collected and analyzed using a One-way Analysis of Variance. Two main effects and two interaction effects were explored: does the students' ethnic/racial background moderate the teachers' at risk score (ARS) regardless of the behavior displayed?; does the type of behavioral expression moderate the ARS regardless of ethnic/race?; is there an interaction effect between H/L students exhibiting internalizing behaviors that systematically results in a lower ARS and AA students exhibiting externalizing behaviors that systematically results in a higher ARS?

Results indicated that (a) when compared to White, Hispanic/Latino students are indeed less likely to be perceived by the pre-service teachers as exhibiting EBD-like behaviors regardless of the behavior (externalizing, internalizing, or neutral) displayed, (b) externalizing behaviors was the strongest predictor for perceiving someone as at-risk for having EBD-like behaviors, and (c) no interaction effects were found.

## **DEDICATION**

To my parents

José Antonio Massa-Tirado (posthumous) and Ada Nilsa González-Ruiz

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## CHAPTER I

### INTRODUCTION: BACKGROUND AND RATIONALIZATION

The 2009 *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act* reported the enduring finding that special education eligibility categories continued to vary disproportionately by ethnicity (US Department of Education, 2009a). Specifically, it was noted that relative to their population estimates, American Indian, Alaska Native and Black students (or African Americans, AA) were over-represented in most special education eligibility categories, while Hispanic/Latinos (H/L) students and other groups continue to be underrepresented for similar categories. One notable example of consistent underrepresentation is Hispanic/Latino students identified in the emotionally or behavioral disturbed (EBD) special-education (SPED) eligibility category (Cullinan & Sabornie, 2004). Skiba et al. (2008) reported that over the last decades H/L students have consistently been under-represented in EBD eligibility relative to their population estimates. Despite the disproportionate representation of ethnic groups like Hispanics in SPED categories, very few studies have sought to understand the phenomena underlying the disproportionate representation. One promising area of research is the role that teacher's perceptions play in special education referral process, specifically perceptions of problem behaviors and attendant decision-making. The aim of this study is to better understand the role of teacher perceptions of behavior and attendant decision-making practices relative to Hispanics and African-American students with regard to EBD referrals.

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This thesis follows the style of *Journal of Child and Family Studies*.

Numerous federal sources report that H/L students continue the disturbing trend to: (a) struggle academically at a higher rates than peers of other ethnicities (U.S. Department of Education, 2009b); (b) have higher dropout rates, (c) be less likely to earn a high school diploma than other ethnic/racial groups (U.S. Department of Education, 2003); and (d) be at significantly higher risk for poor mental health outcomes such as elevated levels of depression, anxiety, and suicidality (U.S. Public Health Service, 2001). This has many implications for early identification and prevention efforts for H/L students at risk of behavioral, academic and emotional problems, especially when it comes to teacher referral for mental health services.

Unfortunately, the existing mental health and education literature on H/L students provides limited guidance in understanding the well documented disproportional representation in some categories of special education of this vulnerable population in American schools. The importance of this finding rests on the expectation that the provision of intervention or remedial resources often rely solely on the teacher accurately identifying, referring and placing children and youth appropriately.

One possible reason for limited research on the underrepresentation of H/L in EBD services is disagreement among professionals about what constitutes “disproportionality” in special education eligibility, specifically how disproportionality is determined. Historically, disproportionality has been looked at in terms of composition indexes that compare the percentage of students for a given group in the general population and their representation in special education. Recently, the U.S. Department of Education has changed the way disproportionality is reported to the use

of risk indexes. Risk indexes look at the risk or likelihood for a given group to be identified in a given category when compared to all other ethnic/racial groups. Despite the new strategy in reporting methodology, H/L students continue to be under identified in some important categories of special education, most notably in EBD (Coutinho & Oswald, 2000).

To better understand the reasons underlying the documented underrepresentation trend, especially among Hispanic children and youth in the EBD category, researchers have shifted from solely looking at individual factors to a more systemic approach that acknowledges the importance of environmental factors (e.g., homes, schools, and friends). Although a number of hypotheses have surfaced in recent years (e.g., validity of assessment practices with minority students) one promising area of research involves teacher perceptions and subsequent decision making. In particular, researchers interested in the moderating effects of environmental factors have noted the crucial role that teacher perceptions of student behavior play as well as the relationship between these perceptions and teacher actions (Skiba et al., 2003; Coutinho & Oswald, 2000).

The role of teacher perceptions in the identification of students in need of referral for special education services has been identified as one of the most important phenomenon associated with disproportionate rates in referrals and placements in special education (Mahon, 2006). Teachers are after all the gatekeepers of who does and does not get referred for special education evaluation and services. One theoretically intriguing framework that has not previously been applied to teacher perceptions where special education referrals are concerned is attribution theory. Attribution theory

(Heider, 1958, as cited in Dobbs & Arnold, 2009) generally refers to the explanation one gives to a life event/occurrence. When it comes to teacher-student relationships, attribution theory may help explain teachers' perceptions and attributions of intention where a student's behavior is concerned. For example, when confronted with adolescent oppositional behavior, a teacher's attributional style may moderate whether the teacher sees the behavior as a sign of a problem/illness, culturally mediated, or as a sign of a provocation/defiant attitude. In other words, is the child's behavior the result of an illness (i.e., external attribution), culture, or the result of the child's disruptive manners (i.e., internal attribution)? Previous research has shown that a teacher's attributions of students' behavior can determine the way they relate to the student and even effect important decisions and courses of actions relating to that student (e.g., psycho-educational evaluations, disciplinary actions) (Dobbs & Arnold, 2009). Further, research on teacher's perception has also shown that the ethnic/racial background of a student can, in some instances, moderate the likelihood of receiving a special education referral even after taking into account the nature of the students' symptoms and behaviors (e.g., Prieto & Zucker, 1981).

Understanding the various ways teacher perceptions can influence special education referral is particularly important given that the emotional-behavioral disturbance (EBD) category relies heavily on teacher subjective judgments about student behavior (Serna, Forness, & Nielsen, 1998; Skiba, et al., 2008). For instance, one of the criteria for being identified as EBD states that the student is suffering from, "an inability to build or maintain satisfactory interpersonal relationships with peers and teachers" (p

158; Cullinan & Sabornie, 2004). Yet it has been found that what constitutes an appropriate teacher-student interpersonal relationship has been known to vary by teachers' cultural background (Serwatka, Deering, & Grant, 1995). Therefore, investigating teacher views of what constitutes acceptable versus unacceptable student behavior may provide valuable insight in current identification and placement practices; especially, for H/L students who are typically underrepresented in the EBD category.

Also important in understanding the underrepresentation of H/L in the EBD category is H/L behavioral expression (e.g., how they display distress) that may or may not signify emotional or behavioral problems. For example, it is well documented that the primary sources of referrals for emotional and behavioral problems relate to externalizing behavioral expression (e.g., angry outbursts; fights, non-compliance). That is, disorderly students that openly misbehave in class and disrupt the teaching process constitute the majority of students who get referred for special education evaluations and ultimately are diagnosed with EBD (Walbrath et al., 1998; Riccio, et al., 2003). Yet, it is also known that H/L students are more likely to express mental distress through internalizing symptoms/behaviors (e.g., Polo & Lopez, 2009; Lopez et al., 2005). Internalizing behavior generally refers to those behaviors that are less observable such as a student's suffering from depression, anxiety, and/or suicidal ideations (Araujo-Dawson, & Williams, 2007) and thus less disruptive to the classroom teacher. Nonetheless, internalizing behaviors have been found to place students at a high risk for poor educational attainments and mental health outcomes (Lopez et al., 2005), and unfortunately, may also be less observable to teachers.

In summary, given that: (a) H/L more often express mental distress through internalizing behaviors when compared to other ethnic/racial groups, (b) referral practices are likely moderated by teachers perceptions, and (c) externalizing behaviors represent most referrals for special education evaluation, it is plausible that a combination or interaction of these three factors (i.e., teacher perceptions, internalizing behaviors and the students ethnic/racial background) can –to some degree– be associated with underrepresentation of H/L children and youth in the EBD special education category. Therefore, the purpose of this study is to use an analogue approach to evaluate whether students’ behaviors (i.e., internalizing versus externalizing) and ethnicity are related to teachers’ perceptions of student risk status and thereby in need for special education services (i.e., EBD).

This study employed survey methods to examine teacher perceptions when presented with alternative behavioral descriptions (i.e., vignettes), ethnicities and subsequent decision-making relative to student behavior. The 114 participants were pre-service teachers from a southern state university. To parallel the predominant national demographic characteristics of practicing teachers, the sample consisted mostly of Caucasian, females in the 20’s to 30’s age groups enrolled in any of the teaching-methods classes at the university. Online survey software known as Qualtrics (<http://www.qualtrics.com/tamucehd.html>) was used to automatically gather and tabulate data from participants. The survey consisted of: (a) a demographic questionnaire, and (b) three mock cases (each with a cumulative folder, a vignette, and a likert scale questionnaire known as the Teacher Respond Plan).

After answering the demographic questions, participants were randomly assigned to one of three possible case study: a case having the exact same language with only the student's ethnic/race varying. To assess teacher's perceptions relative to student behavioral severity, the Teacher Response Plan (TRP)-a researcher-developed likert-scale measure (i.e., a one to four scale where one is no problematic behavior and four refers to problematic behavior that needs to be referred) was used. The TRP provided a summative score that indicated the likelihood, given a particular mock vignette, for a teacher referral; this score heretofore referred to as the teacher's At-risk Score (ARS). Factorial Analysis of Variance were computed to assess if teachers' perceptions of student behavior was determined by the student's ethnicity and type of behavior (i.e., INT versus EXT) and whether these factors provided some insight into the underrepresentation of Hispanic/Latino students in the EBD category. As a supplementary analysis, and because of the documented over-representation of African Americans (AA), an ANOVA analysis was also conducted to determine if there was an overrepresentation of AA in the EBD category. Specifically, the research questions are:

1. Does the students' ethnic/racial background moderate the teachers' At-risk Score (ARS) regardless of the type behavior displayed (i.e., EXT versus INT)?
2. Does the type of behavioral expression of the student (i.e., externalizing versus internalizing) moderate the ARS regardless of ethnic/race?
3. Is there an interaction effect between H/L students exhibiting internalizing behaviors that systematically result in a lower ARS?

4. Is there an interaction effect between AA students exhibiting externalizing behaviors that systematically result in a higher ARS?

## CHAPTER II

### REVIEW OF THE LITERATURE

Disproportionate representation of minority students in special education (SPED) in the United States is well documented (U.S. Department of Education, 2009a; Ysseldyke & Algozzine, 1983; Reschley, 1988; Serna, Forness, & Nielsen, 1998; Coutinho & Oswald, 2000). Equally well documented is the ratio imbalance of specific minority student populations referred to and placed in (Hosp & Reschly, 2003; Skiba, et al., 2008) special education services relative to their representation in the population. Most notably, disproportionality has often taken the form of the overrepresentation of African American (AA) children and youth in the categories of mental retardation and serious emotional disturbance (Thomas et al., 2009). In fact, according to the U.S. Congress Report on the Implementation of the Individual with Disabilities Educational Act (U.S. Department of Education, 2009a) AA students have the highest risk ratio for mental retardation (i.e., 2.83 times more likely to receive special education and related services for mental retardation than all other racial/ethnic group combined). While overrepresentation is clearly a problem, one issue that has not received much attention in the literature is the underrepresentation of minority students, especially Hispanic children and youth in certain SPED eligibility categories, most notably EBD. The present literature review aims to provide a better understanding of possible factors underlying the underrepresentation of Hispanic children and youth, particularly in the EBD category.

This literature review will address the following: (a) Hispanic/Latinos (H/L) children and youth and attendant demographics, academic performance, and representation in the special education system, (b) disproportionality, its definition, current research, and the role of teachers' perception, (c) emotional behavioral disturbance (EBD) and what it is, status of students with EBD and available research on H/L and EBD, as well as (d) the mental health status of H/L students; particularly, cultural differences among H/L when it comes to the behavioral expression of mental distress (i.e., internalizing behaviors).

One notable example of underrepresentation of minority students is the disproportionately low numbers of Hispanic/Latino students, relative to population estimates, served under the EBD Individual with Disabilities Education Improvement Act category (U.S. Department of Education, 2009a). While for African Americans the EBD risk-index is 1.38 (0.62 for all other racial/ethnic groups combined and excluding African Americans), for Hispanic/Latino the risk-index is 0.43 (0.80 for all other racial/ethnic groups excluding H/L), and for Caucasians is 0.69 (0.81 for all other racial/ethnic groups; U.S. Department of Education, 2009a). Risk-indexes refer to the likelihood of a given racial/ethnic group to be identified as EBD when comparing that group with all other racial/ethnic groups. Clearly, relative to expected ratios, the likelihood ratio for H/L students is low relative to their population numbers.

Historically, federal reports have consistently found that H/L students are underrepresented in the EBD category (U.S. Department of Education, 2001, 2007, 2009a; Coutinho & Oswald, 2000). In 1998-99, disproportionality in special education

was calculated by comparing the percentage of a given racial/ethnic group in special education (i.e.SPED) across disabilities (i.e., resident-population) with the percentage of that given group in each SPED category. For instance, when examining Caucasian students identified as EBD, it was determined that there was no discrepancy given that their resident-population in SPED was 64.5% and their percentage in the EBD category was 61.5 percent-a relatively equal representation of Caucasians in EBD relative to their numbers. However, during the same period the SPED resident-population for H/L students in SPED was 16.2%, and their percentage in the EBD category was simply 8.9 (U.S. Department of Education, 2001) -a clear discrepancy. Interestingly these gaps were not observed in categories such as hearing impairments, visual impairments, and/or orthopedic impairments (Skiba, et al., 2008). In addition, Skiba et al. indicated that in the last decade, data from the annual reports to congress on the implementation of IDEIA point to a clear trend of underrepresentation of H/L students in multiples categories in special education particularly in the EBD category.

#### *Hispanic/Latino Students and Special Education System*

Given that the United States is experiencing burgeoning growth in the numbers of Hispanics/Latinos, (H/L; U. S. Census Bureau, 2008), one could also reasonably assume a concomitant increase in the number of Hispanic/Latino students in need of mental or educational prevention and intervention services in the schools. Yet, as IDEIA reports suggest, for EBD this is not the case. This poses the question of why is there an underrepresentation in the EBD category. Socio-demographic familiarity with the Hispanic/Latino population may provide an insight into understanding the possible

origins of underrepresentation of this group in the emotional/behavioral disturbance category.

*The Hispanic/Latino Population: Some Important Socio-demographics*

The largest minority group in the United States is the Hispanic/Latino population. Specifically, on May 1, 2008 the United States Census Bureau released a statement indicating that 15.1 percent (i.e., 45.5 million) of the estimated 301.6 million in U.S. population is of H/L origin (U.S. Census Bureau, 2008). Yet these statistics are seen as a gross underestimation given the numbers of illegal immigrants who, on a daily basis, enter the country and the numerous undocumented immigrants who are already residing in the U.S. (Garcia-Preto, 2005). Furthermore, per the U.S. Census Bureau, the H/L population growth rate is higher than any other U.S. ethnic groups. Specifically, the U.S. Census Bureau found that while in the 1990s the overall U.S. population growth was 9%, the H/L population growth was 38% (De Las Fuentes, Barón, & Vásquez, 2003). One can expect that with this growth comes a concomitant increase in the number of H/L students entering the U.S. educational system in need of culturally appropriate educational opportunities and services.

Another important factor unique to the H/L ethnic group is their heterogeneity. This heterogeneity prompted the U.S. Census Bureau to further classify Hispanic/Latino as individuals of Mexican, Puerto Rican, Cuban, South or Central America or any other Spanish culture/origin regardless of their race (U.S. Census Bureau, 2007).

Notwithstanding the diversity, the majority of H/Ls do share a number of cultural

similarities. For instance, they usually speak Spanish, are Roman Catholic, and generally possess similar socio-political backgrounds (Garcia-Preto, 2005).

It is important to know that a number of these characteristics are known to interact with the educational experiences and achievements of H/L in the U.S. educational system. For example, given that many H/L children and youth come from families where the dominant language spoken is Spanish, upon entering schools many automatically become English language learners (ELL; U.S. Department of Education, 2003). The lack of English language proficiency can serve as an elevated risk factor among H/L (e.g., Verdugo & Flores, 2007). Artiles et al. (2005) showed that H/L students with limited language proficiency are at high risk of numerous academic deficits that imperil their success in schooling. Furthermore, when children are limited in both native and secondary language (e.g., Spanish and English) they have the highest rates of identification in special education placements suggesting that language proficiency is associated with learning outcomes and special education referral patterns (Artiles et al.).

Even when controlling for language proficiency, H/L students continue to struggle academically when compared with their Caucasian peers (U.S. Department of Education, 2009b). For instance, data stemming from the National Assessment of Education Progress (NAEP) continues to show significant gaps in reading and math between Caucasian students' academic performance and H/L. In fact, the latest NAEP report, often termed the "Nation's Report Card," (U.S. Department of Education, 2009b) indicated that while the average reading level for 13 year-old Caucasians is 290, for H/L

of the same age is 268, documenting a significant 23 points difference in performance between these two groups. NAEP data has documented the fact that Hispanic/Latino students are particularly deficient in mathematics, holding the lowest national average in math performance among 13-year-old students (i.e., average math performance for Caucasians is 268, Blacks 247 and H/L 242; U.S. Department of Education, 2009b).

More alarming is the staggering number of H/L students who drop out of school and never earn a high school diploma. A national report known as *The Status and Trends in the Education of Hispanics* (U.S. Department of Education, 2003) indicated that while the dropout rate for Caucasians is 7% and for African American is 17%, for H/L students the dropout rate is an alarming 28%. Moreover, historically, Hispanic/Latino students have consistently held the highest drop out rate among ethnic groups as documented from 1972 to 2000 (U.S. Department of Education, 2003). Not surprisingly, these alarming statistics confirm the evident educational need of H/L students. With these numbers (e.g., poor academic performance, high dropout rates, and attendant socio-emotional difficulties) one might expect that H/L students are benefiting from remedial education services at the same rate or even at a higher rate than other ethnic groups. Unfortunately, that is not the case; in fact, H/L students have been found to be underrepresented in most special education categories particularly in EBD (Skiba et al. 2008).

#### *Disproportionality: Defining When it Happens*

In general, academicians, practitioners, and policy-makers agree that disproportionality refers to a violation of what Daniel Reschley (1988) originally called

the “Equal Treatment Criterion of Fairness” rule. This rule posits that in light of the same behaviors, teachers and school officials should be making the same decisions across ethnic groups in terms of referrals, assessments, and placements. Unfortunately, what they do not agree on is what constitutes disproportionality in special education, particularly in how it is calculated (e.g., using different formulas and thresholds; Coutinho & Oswald, 2000).

Specifically, Skiba et al. (2008) reported that measurement efforts have been polarized into: (a) those who use composition indexes (comparing the incidence of a group in a given category against its proportion in the broader –resident–population), and (b) those who use risk-indexes and/or risk-ratios (which measures the odds of a individual from a given group being identified under a given label).

Recently, the U.S. Department of Education (2009a) decided to use risk-indexes and risk-ratios in favor of composition indexes. Specifically, as reported by Westat (2005), the U.S. Department of Education Office of Civil Rights developed the following set of guidelines: (a) the need to use risk-ratios, (b) an alternative instrument should be used when calculating the risk-ratio for school with a small student population, and (c) that now it is acceptable to use an alternate weighted risk-ratio for small sample within a school district or across school districts. Risk ratios aim to answer the following question: “what is a specific racial/ethnic group’s risk of receiving special education and related services for a particular disability as compared to the risk for all other students?” (Westat, 2005, p. 11).

### *Research on Disproportionality*

Although the annual reports to congress on the implementation of the Individuals with Disabilities Education Act acknowledge that there are under and over representations in certain populations, the reasons underlying these patterns are less transparent (Thomas, et al., 2009; Skiba et al. 2008; Cramer, 2006; Coutinho & Oswald, 2000). Currently, most of the available research attempting to explain disproportionality can be clustered into two dimensions, namely, individual and/or environmental characteristics.

### *Individual and Environmental Characteristics*

Coutinho & Oswald (1998, 2000) argued that the reasons behind disproportionality should be divided in factors associated with the individual and factors within the individual's environment. Using this approach, the authors developed two plausible hypotheses for disproportionality. The first hypothesis underscores individual factors such as health, economics, demographics, and even differences in academic achievement (e.g., Brook-Gunn, & Duncan, 1997). For example, Yeh et al. (2004) conducted a study looking at the individual factor of parental beliefs relative to EBD services such as mental health counseling. Specifically, these authors examined the degree to which parental beliefs (about the causes of their child's problems) were interacting between race/ethnicity and identification for EBD. They found that parental beliefs help to explain the relationship between race, ethnicity and EBD services use. In other words, the parental belief that a child's problem was due to the child's personality and/or the way they related to other children helped to partially explain the lower rate of

EBD service use for H/L and Asian/Pacific Islanders. Although their study shed some light on H/L families' view of mental health services, Yeh et al. acknowledged that it provided little information regarding factors accounting for the under-identification of H/L students with EBD. Another study looking at individual factors was conducted by Wehmeyer & Schwartz (2001). These authors compared individual characteristics against environmental characteristics and concluded that teachers' gender biases were in fact the strongest predictors for the underrepresentation of females in special education services. After controlling for biological and behavioral characteristics (i.e., similar degree of symptoms) across gender they found that females were, in fact, less likely to be referred and admitted to special education services; a finding determined to be the result of gender bias: an environmental characteristic.

The second hypothesis (i.e., environmental factors) proposed by Coutinho & Oswald (1998, 2000) is the most popular position among researchers trying to understand underrepresentation of minority groups in special education services. This hypothesis states that "special education referral, assessment, and eligibility rely on processes and instruments that are culturally and linguistically loaded" (p 147); specifically, that (a) assessment measures are invalid when it comes to minority groups (e.g., Epstein, Nelson, Trout, & Mooney, 2005; Skiba et al., 2008), (b) teacher's racial/ethnic biases interferes with the referral process (e.g., Hosp & Reschley, 2003; Cramer, 2006), and (c) biases in the decision-making process interfere with evaluation and placement of students in special education (e.g., Skiba et al., 2003; Coutinho & Oswald 2000).

Among the previously mentioned environmental factors, teachers' perception of students' behavior is considered to be one of the most potent factors that moderate referrals and placements in special education (Mahon, 2006); mainly because it has been found that teachers are indeed the most likely source of referrals for SPED, particularly when it comes to EBD (Riccio, Ochoa, Garza, & Nero, 2003). Understandably, researchers have come to accept the need to further understand and investigate the role of teachers' perceptions in the referral process after all they are the gatekeepers to special education. The following elaborates on teacher perceptions as understood from a social psychological perspective.

Before discussing the role of teacher's perceptions in EBD referral processes, it's important to note that the concept of "perception" has a rich social psychological research foundation in understanding human behavior. The well documented research on perceptions shows that how one perceives the world influences how one reacts (e.g., Dobbs & Arnold, 2009; Pianta, 1999). Much research on perception rests on a theory known as Attribution Theory developed in the 1950s by Heider (Heider, 1958, as cited in Dobbs & Arnold, 2009).

Attribution theory refers to "the explanation that individuals make for the events happening around them" (Dobbs & Arnold, 2009, p. 96). Specifically, Dobbs and Arnold looked at attribution theory in regards to teachers-students relationships. They argued that with regard to teacher's perception, attribution theory posits that how teachers attribute intentionality to student behaviors affects how they respond to that behavior. For instance, if a teacher attributes a certain behavior as internal (e.g., a child's

disruptive nature), the teacher will be inclined to respond to that child in a certain manner (e.g., harsh, punitive) regardless of the situation. Nonetheless, if the teacher attributes a certain behavior as external (i.e., child's illness), the teacher is going to be less likely to hold the student accountable for their behavior and more likely to respond to that child in a warm and supportive manner. Dobbs and Arnold found that teacher perceptions or attributions of the reasons underlying a student's behavior determines their decision-making when it comes to addressing and referring students for disciplinary actions due to abnormal classroom behaviors- a significant insight in understanding teacher referral patterns. Moreover, this finding implies that teacher perception of a student's behavior can very well be a key variable in understanding the underrepresentation of Hispanic children and youth in EBD classification and referral rates.

Other research shows that the important role of teachers in the SPED referral process has earned much attention (e.g., Gerber & Simmel, 1984) and its impact is receiving more documentation. For instance, Cartledge and Kourea (2008) documented that teachers' perceptions of student's behavior can influence patterns of special education referrals. Specifically, when teachers' attribute certain student behaviors as culturally-bound they are less likely to refer the student for psycho-educational services.

Prieto and Zucker (1981) conducted a study looking at teachers' perception and reactions. This 1981 study is relevant because they specifically looked at how teachers' reacted when confronted to identical cases (i.e., vignettes) but manipulating the race of the students as a moderator of perceptions. These researchers found that "teacher[']s

expectations regarding race were so strong that they pervaded the identical information contained in the case studies leading to differential treatment of the students” (p 36).

That is teachers’ referral practices were moderated by the students’ race, regardless of their behaviors.

Similarly, in a recent study with AA students, Thomas et al. (2009) addressed the issue of teachers’ perception of students in light of their race and emotional responses. Thomas et al.’s finding added to the evidence that teachers’ perceptions and their decision making process were moderated by the students’ racial/ethnic background. Specifically, they found that, by and large, teachers perceived emotional responses among AA male students’ as a sign of behavioral over-activity and maladjustment. Interestingly, students’ emotional responses were found to be moderated by their awareness of their teacher’s perception biases. That is, students who perceived teacher’s perceptions as biased against AA would most likely assume an oppositional and disruptive stand. These findings are particularly relevant because they showed that not only are teachers’ perceptions moderated by students’ demographic characteristics but that the students’ in-classroom-behavior can be moderated by the teachers’ perceptions.

Furthermore, it has been found that teachers’ perception of students’ behavior is highly correlated with behavior toward those students (Dobbs & Arnold, 2009). Dobbs and Arnold looked at the relationship between teachers’ perceptions of children’s behavior and teachers’ behavior toward those children. They found that “teachers gave more commands to children that they reported as having more total behavior problems and more externalizing problems” (p. 102). Moreover, they found that even after

controlling for the severity of children's behavior, teacher's perception was the key variable in determining the amount of commands (i.e., reprimands) directed at students. That is, teachers' perceptions for the most part determined the way they treated and even related to their minority students.

Other factors are important when considering teacher referral patterns, behaviors and attitudes towards minority students. For example Serwatka, Deering, and Grant (1995) found that: (a) disproportionality in EBD decreases when there is an increase in minority teachers with similar racial/ethnic background to their students, and (b) that the more AA students are in a school the less likely that a particular school is to have AA students overrepresented in EBD classes. These researchers argued that AA teachers are more likely to "be sensitive to cultural identity in terms of attitude, carriage, and demeanor, and less likely to identify differences as deviant" (p. 502) when compared to non-minority White teachers. Furthermore, they also concluded that when non-minority White teachers are placed in a highly populated AA school, they are more exposed and familiar with culturally different behaviors and less likely to label these cultural-specific behaviors as deviant (Serwatka, Deering, & Grant, 1995). These findings suggest an intricate relationship between teachers' perception of cultural differences and their EBD referral patterns.

#### *Emotional/Behavioral Disturbance (EBD)*

Emotional disturbance (a.k.a. emotional behavior disturbance; EBD) is not a psychiatric disorder recognized by the Diagnostic and Statistical Manual of Mental Disorder (DSM-IV-TR, 2000), per se, but one of the special education eligibility

categories under the civil rights law known as Individuals with Disabilities Education Improvement Act of 2004 (IDEIA; officially recognized as Public Law 108-446 – enacted by the 108th U.S. Congress).

To be eligible for EBD, students must meet one or more of the following criteria over a period of time and to a marked degree that negatively affects the educational performance. The five criteria are:

- (a) An inability to learn that cannot be explained by intellectual, sensory, or health factors.
- (b) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
- (c) Inappropriate types of behavior or feelings under normal circumstances.
- (d) A general pervasive mood of unhappiness or depression.
- (e) A tendency to develop physical symptoms or fears associated with personal or school problems. (p 158; Cullinan & Sabornie, 2004).

Furthermore, students with schizophrenia are also eligible to receive services under the emotional disturbance classification. Given that these criteria are not officially recognized by the DSM-IV, there seems to be an attendant lack of research documenting the accuracy or diagnostic utility of this label. There also appears to be a lack of documentation of variability in the expression of emotional disturbance among students from different ethnic and cultural backgrounds and the effectiveness of the identifying one as EBD and referral processes (Hosp & Reschly, 2003). Traditionally, when a

student exhibits some of these symptoms, the teacher is the one responsible for alerting school officials. Depending on the school district, the procedures vary; however, typically, a second teacher/staff needs to validate the referral in order to send a request for a formal psychological assessment. Nowadays, some school districts are implementing the Response to Intervention (RtI) model that requires that all students in general education classes are screened (i.e., universal-screening) for any behavioral or learning concerns (Fuchs, Mock, Morgan, & Young, 2003) to identify early those at risk of EBD. If a student exhibits a behavioral/academic problem, a second phase (i.e., tier II) is implemented, where the student receives a tailored small-group intervention to address the behavioral issue. As a last measure, for those students that do not respond well to the second tier intervention, a formal psychoeducational assessment is considered. The RTI model is fairly new and the availability of research documenting its effectiveness is pending, particularly when it comes to servicing children and youth identified with EBD.

Cullinan and Sabornie (2004) acknowledged that there is a scarcity of research on emotional disturbance. These authors indicated that a large number of researchers are hesitant to conduct research using the EBD classification criteria arguing that the EBD label is “ambiguous and unscientific” (p. 157). Instead social scientists and researchers have limited themselves to the use of DMS-IV criteria, such as depression, anxiety, and phobias to conduct most of the available research on school-aged children and adolescents’ mental health. Furthermore, given that in order to qualify as EBD, one needs to have a behavioral (internal or external) disorder as well as an educational need (i.e., a disorder affecting or compromising the educational-performance of the student),

caution must be used when extrapolating the available body of research on mental disorders among school-aged youth. Specifically, one must be careful when using research on mental-illness among H/L as a way to understand the occurrence, course and/or expression of emotional disturbance among H/L school-age youngsters given that emotional disturbance is a SPED category and not necessarily an indicator of a mental illness. Lastly, most of the available research on EBD has been done with other racial/ethnic groups (i.e., African Americans and/or Whites) given their significant representation on the EBD category (e.g., Thomas, et al., 2009; Nelson, Benner, Niell, & Stage, 2006; Serna, Forness, & Nielsen, 1998). Notwithstanding, some of these studies and national reports have provided a picture of the educational status and performance of H/L students (in comparison to other racial/ethnic groups) in the general education system as well as those served in the SPED system. Clearly, more research is needed.

#### *Status of Students Identified as EBD*

Epidemiological research has documented that the educational outcomes of students with EBD are far more perilous than other diagnostic categories in the special education system (e.g., U.S. Department of Education, 2009a). For instance, according to U. S. Department of Education reports, students classified as EBD: (a) spend less time in regular education classrooms and more time in restricted environments, (b) have the highest dropout rates, (c) are more likely to engage in delinquent behavior, and (d) are less likely to obtain a high school diploma when compared to other students receiving services under different classification of the special education spectrum. The U.S. Department of Education has been tracking the status and educational outcome of

students served under the SPED system on a single yearly report known as *The Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*.

According to the 2009 report (U.S. Department of Education, 2009a), students with EBD have the highest dropout rates across all disabilities. Specifically, while the average dropout rate for students in SPED was 31.1% (during the academic year of 2003-04), for students classified as EBD the dropout rate was 52.3%. To put it into perspective, the second highest dropout rate was 29.4% and it was for speech / language impairments.

In addition, IDEIA mandates that SPED services adhere to the least restrictive environment rule which ensures fairness and access to education (U.S. Department of Education, 2009a) for all students identified with a disability. Nonetheless, when excluding criteria that require a separate environment such as Deaf-blindness and multiple-disabilities, students classified as EBD spend a disproportionate amount of time in a restrictive (i.e., self-contained classroom) environment. Specifically, the percentage of time in a separate environment for students with EBD was 17.2% versus 4.0% for all other SPED disabilities combined (U.S. Department of Education, 2009a). Furthermore, longitudinal data collected from the annual reports to Congress on the implementation of IDEIA (i.e., U.S. Department of Education, 2007, 2009a), showed that the gap in school completion is widening for EBD in comparison to other disabilities. Interestingly, on average the achievement performance deficits (e.g., Epstein, Nelson, Trout, & Mooney, 2005) and dropout rates (U.S. Department of Education, 2009a) of students with EBD

are similar to the academic deficiencies of a large number of H/L students in the general education system (U.S. Department of Education, 2003). That is, when looking at a national picture, H/L students in general education appear to have an educational need that mirrors the need of the average student currently served in the EBD special education category.

#### *Hispanic/Latinos and EBD*

Cullinan and Sabornie (2004) conducted a study looking at the five EBD criteria in order to understand how EBD diagnosis might be affected by students' school level, racial/ethnic status, and/or gender. Findings showed that among H/L with EBD, gender serves as a moderator effect for EBD expression of maladaptive behaviors. Specifically, while H/L girls with EBD behave significantly different from H/L girls without EBD, for boys symptoms were not statistical significantly different among H/L boys with EBD and their Caucasians counterparts without EBD (i.e., behaviors were perceived/reported as similar by teachers). These findings are particularly important given that overall, 77% of the students identified as EBD are males (U.S. Department of Education, 2005). Therefore, if teachers could not differentiate between H/L males with EBD versus H/L males without EBD, in terms of their behavior, it is possible that the current EBD identification system is not accurate for H/L students or that the raters (i.e., the teachers) are misreading the behavioral cues in H/L male students. Cullinan and Sabornie stated that their findings support the need for developing different norms for identifying maladaptive behaviors among students from different cultural and ethnic background (i.e., Hispanic/Latinos). Once again, research points to the need to take a closer look at

the effect of the teachers' perceptions, and subsequent identification and referral practices when it comes to identifying H/L students in need for special education services especially in light of the downstream outcomes associated with identification as EBD.

### *Hispanic/Latino Mental Health Status*

Of relevance to the present study are issues related to Hispanic/Latino mental health. Specifically, if H/L children and youth are underrepresented in the EBD category can one reasonably assume that they would have better mental health outcomes than other ethnic groups? Evidence shows this is not the case. In 2001, the Office of the Surgeon General published a supplement to their national report on mental health titled *Mental Health: Culture, Race, and Ethnicity* (U.S. Public Health Service, 2001). This report indicated that mental disorders such as depression, anxiety, and phobias are *more* prevalent among U.S. born H/L instead of foreign-born. Furthermore, the report cited that epidemiological studies confirm that the same pattern holds true for H/L school-age children. Nonetheless, given that among school-aged children the likelihood of being U.S. born is higher, studies looking at the mental health status among H/L students have found that: "Latino youth are at significantly higher risk for poor mental health outcomes. [...] they are more likely to drop out of school, to report depression and anxiety, and to consider suicide than white youth" (p.146; U.S. Public Health Service).

Given the Surgeon General's report, one would expect Hispanic/Latino youth would be represented in EBD at a rate similar to or greater than their population estimates. Unfortunately, the opposite is true. In fact, school-based mental health

services and personnel are under-referring and under-identifying Latino youth to mental health services (Yeh, et al., 2002). Yeh and colleagues found that while non-Hispanic Whites are more likely to be referred to outpatient mental health clinics by the school, H/L and other minority groups are more likely to be referred to outpatient clinics by the Juvenile Justice system and at a later age. Therefore, these findings underscore the need to take a closer look at the role of teacher perceptions (e.g., in terms of identifying H/L with psychological ailments) and their effects, if any, on the referral process for H/L as a way to examine under-identification of Hispanics to the EBD IDEA category. Another important aspect of Hispanic/Latino's mental health is the course overtime of mental ailments among H/L students. Specifically, it is important to further explore if cultural differences in the expression of maladaptive behaviors (i.e., internal versus external behaviors) are a factor in the way teachers perceive H/L psychological wellbeing. It is known that Hispanic/Latino youth are more likely to express mental distress through internalizing behaviors (Polo & Lopez, 2009; Lopez et al., 2005). In fact, Lopez et al. (2005) reported that H/L adolescents are more prone to internalizing problems such as depressive symptoms and suicidal ideation than non-Hispanic Whites and African Americans youth. Furthermore, they reported that H/L youth more often exhibit timidity, fearfulness, and separation anxiety when compared to non-H/L youths. Interestingly, Leve, Kim, and Pears (2005) looked at predictors of internalizing and externalizing problems among school-aged children ages 5-17 and found that shyness (i.e., timidity) and fearfulness were among the strongest predictors of internalizing problems across a 12-year time span for both genders of Hispanics.

These findings are particularly relevant because the bulk of referrals to EBD are the direct results of externalizing problems rather than internalizing behaviors (Walbrath et al., 1998; Riccio, et al., 2003). Externalizing behavior refers to those behaviors that are overt (Araujo-Dawson, & Williams, 2007). An example of externalizing behavior is a child that is experiencing parental discord at home and consequently turns aggressive, screams at the teacher, and refuses to comply with classroom rules. On the other hand, internalizing behaviors refer to a child's expression of psychological distress in a less observable manner (Araujo-Dawson, & Williams, 2007). For instance, the same child experiencing parental discord could instead turn shy, withdraw, become quiet, and less likely to volunteer answers. The child is not disrupting the classroom but nonetheless is suffering as much as the disruptive child from emotional distress. As such internalizing problems have been found to represent a major risk for decreased educational attainment among school-aged children and adolescents (Ollendick, Weist, Borden, & Greene, 1992, as cited by Lopez, et al., 2005).

In a qualitative study Skiba, Simmons, Ritter, Kohler, and Wu (2003) investigated the degree to which defiant and disruptive (i.e., externalizing) behaviors are the driving force behind SPED referrals. Specifically, they cited the following teacher's view as representative of most of the reasoning for SPED referrals: "When the behavior is a detriment to everybody in the class... that's the point that [a] child should be referred and something else needs to happen." (p. 33). Another school official within their sample confirmed these findings, "I think behaviors are driving referrals- a very quiet child who cognitively has a depressed IQ is much less likely to be referred than a

child with acting out behavior[s]” (p. 33). These findings are relevant to the H/L community given that U.S. H/L children are more likely to express mental distress through internalizing behaviors (e.g., Lopez, 2005; Araujo-Dawson & Williams, 2007). Furthermore, given that the expression of mental distress (and emotional disturbance) is culturally-bound (De Las Fuentes, Barón, & Vásquez, 2003; Garcia-Preto, 2005), it is possible that issues of internalizing versus externalizing behaviors could be moderating teacher perceptions and thereby resulting in less H/L referrals for assessment of EBD resulting in the underrepresentation of H/L in the EBD category.

In brief, given that the evidence suggests that teachers are under-identifying and under-referring H/L to mental health services and SPED evaluations (U.S. Public Health Service, 2001; U.S. Department of Education, 2009a), it is important to examine teachers’ decision making processes (i.e., perceptions) in their referral patterns for EBD evaluations. Furthermore, it is also important to examine if the behavioral expression of mental health problems among H/L students (i.e., expressing maladaptive behaviors internally versus externally) is contributing to the teachers’ lack of referral of H/L students to EBD evaluations.

In summary, the research shows that: (a) there is a pattern of H/L students being under-referred, under-identified, and under-served by the special education system, (b) there is a paucity of research looking at H/L in the SPED system and particularly in the EBD category, (c) there is a need for research looking at environmental variables that moderate the representation of H/L in the EBD category, (d) there is ample documentation of the important role that teachers play in the referral of students to

SPED, (e) teacher perceptions may be a culprit in under identification of H/L EBD and the attendant decision-making processes; and lastly, (f) it is clear that the trend of underrepresentation of H/L in the EBD category may not be a positive state of affairs in terms of outcomes given high dropout rates, documented poor school performance in math and reading, as well as the high incidence of internalizing problems such as depression and anxiety among H/L students. In short, no referral equals little or no treatment. As such, it is necessary to explore the extent to which teachers' perceptions are related to the under-referral of H/L for special education services under the emotional disturbance category. This study aims to better understand the role and to document the extent to which teachers' perceptions are influencing their referral decisions for H/L students, and as a result contributing to the underrepresentation of H/L children and youth in the EBD category.

## CHAPTER III

### METHODS

#### *Participants and Setting*

Data was collected from 114 pre-service teachers enrolled in a large southern state university during the fall 2009 (i.e., October). Participants were recruited from students enrolled in any of the methods and student teaching classes (e.g., EC-6TH, TEFB 410, 412, 413, RDNG467—MEFB 352, 460, 470 and RDNG 490 or MEFB 352, 450, RDNG 470 and 490). Participants were pre-service junior and senior level teaching undergraduate students that had completed the majority of their coursework and were ready to enroll in their required school-based teaching practicum. One of the benefits of using pre-service teachers is the possibility of controlling for potential confounding variables that are usually found in natural settings. For instance, career teachers, or teachers that are currently teaching in school settings, could be experiencing dissatisfaction with their teaching career, internal job-settings conflicts, overwhelmed with the amount of workload, and/or feeling burnout. Consequently, these teachers might decide to opt out of the study, resulting in a problem known as systematic attrition which could lead to a biased sample; or they may respond using an overly pessimistic pattern which may result in a problem sometimes referred to as a ceiling/floor effect (e.g., having a limited variance which results in an artificial lack of statistical significance and a low-effect size). Therefore, using pre-service teachers permit ones to assess the variable of interest in this study (i.e., teachers' perceptions) and its impact on their decision-making processes.

In order to parallel national demographic characteristics of teachers (e.g., Thomas et al., 2009), this study targeted pre-service teachers who were mainly Caucasian, female, and in their 20 - 30 years of age; nonetheless a small diverse representation is expected to participate in order to mirror national's trend on teachers' demographics (Thomas et al.). Participation for this survey was voluntary; but teachers were prompted to participate through the use of an incentive in the form of a lottery raffle. After submitting their survey, participants were provided with unique number and were instructed to email (if they wanted to be considered for the lottery drawing) the unique number to the principal investigator in order to qualify for a raffle (prize was four \$30 Barnes & Noble gift-cards). The sample of pre-service teachers was self-selected (i.e., volunteers) from among the general education population of students in their junior and senior academic years. It was anticipated, based on previous year enrollment in the pre-service teacher training courses, that the available number of potential participants would be approximately 300 to 350 pre-service teachers.

### *Instruments*

*Demographic Self-Report Questionnaire.* A brief researcher-developed Demographic Self-report Questionnaire was created and used to collect demographic information from the teachers. Specifically, the pre-service teachers were asked to report their gender, age, ethnic/racial background, undergraduate student status/level (to establish pre-service teacher standing), the program in which the participant was enrolled (i.e., general education versus special education), as well as any prior general

formal and informal exposure to diversity and multiculturalism (i.e., in schools setting and/or taking classes on multicultural issues).

*Case Study Vignettes.* Hosp and Reschley (2003) highlighted the effectiveness of using vignettes in detecting teachers' perceptions and decision-making biases. Vignettes were used to provide the pre-service teachers with a mock-scenario of a student exhibiting behaviors that might or might not be perceived as characteristic of EBD, depending on teacher perception of presented problem. Specifically, vignettes were divided in three categories, externalizing-like behaviors and internalizing-like behaviors and a control vignette displaying neutral (i.e., typical) behaviors. The ethnic/racial background of the mock-students was used as second independent variable; specifically, the same vignettes were replicated with student's ethnic background varying (i.e., White, African American, or Hispanic/Latino) for both externalizing and internalizing behaviors. Lastly, a neutral/control vignette (i.e., no obvious EBD-like behaviors) was presented to participants.

*Student Cumulative Record.* A mock cumulative student record (also referred to as cum-folder) was developed to establish the "educational need," which is required by IDEIA for eligibility under the EBD category (IDEIA, 1997, 2004). Cum-folders (used on all three cases) provided a historical educational record of previous academic performance (i.e., grades), absenteeism, and prior teacher perceptions of the nature of the student's behavior, the students' language spoken at home, gender, age, and grade. In order to avoid having participants guess or infer the students' ethnicity/race (e.g., by using pictures or last names), the cum-folder directly informed the participants about the

student's ethnic/racial background (i.e., H/L, AA, or W). Given that 77% of the students identified as EBD are teenage males, (U.S. Department of Education, 2005), the mock students that were described in the vignettes were all middle-school males.

Given the current response-to-intervention (RtI) zeitgeist, the decision was made to embed the case studies within an RtI contextual framework. That is, in order to establish an educational need in the context of RtI, participants were informed that: (a) the student had already been tested during the *universal screening* Tier I phase and, found to be at risk, and therefore in need of more intense behavioral educational programming than universally available to all students, and (b) the student had subsequently been exposed to more focused and intense teacher *Tier II* programming (i.e., smaller intervention group) academic-behavioral interventions which did not improve the academic and/or behavioral performance of the student in the general educational classroom and thus were candidates for Tier III and/or psychoeducational assessment and more intensive, small group or one-to-one intervention.

*Teacher Response Plan.* The Teacher Response Plan (TRP) is a likert-scale modeled after the work of Chang & Sue (2003). Chang & Sue developed the *Assessment of Behavior* survey to assess the effect of race on teachers' perception of students' behavior. These researchers developed a number of statements and asked teachers to indicate on a likert-type scale the likelihood of referring students and/or perceived certain behaviors as typical or atypical. In the present study, a number of statements were developed (by the author of this study) and participants were asked, relative to their assigned case, to indicate their perceptions of the severity of the presented students'

behavioral, emotional, and academic status by circling the option that best described their perception as well as their likelihood to refer the student to a specialized evaluation (i.e., Tier III). The *TRP* was scored using a one-to-four scale; where one represented a student with no EBD-like behaviors and four indicated a student with significant EBD-like behaviors. Therefore, the maximum total *At-Risk Score* (ARS) is 24 for each vignette individually, or a total possible maximum ARS of 72 for the sum of the three vignettes (i.e., EXT, INT, and Neutral/control). The TRP is listed on APPENDIX E.

*Assessment of EBD Knowledge.* Because there was a concern over pre-service teachers' prior knowledge of what constituted the EBD label, a four-point likert scale was developed that presented the participant with eleven statements including the five criteria of EBD and six statements failing to meet the criteria as outlined by the U.S. Department of Education (Cullinan & Sabornie, 2004). Participants were asked to indicate which of these statements could possibly indicate an emotional behavioral disturbance (EBD). Statements were listed on the Appendix Material section (page 84).

### *Procedures*

Survey research methods were used in the present study. Participants, who agreed to participate, using their own computer, were invited to log into an electronic survey (website hyperlink) that took them to the Qualtrics software database (e.g., <http://www.qualtrics.com/tamucehd.html>). The Qualtrics software is an online survey tool that allows one to create a survey, collect data, and analyze it using state of the art technology (i.e., XML, SPSS, and CSV compatible). One of the advantages of using the Qualtrics software is the capacity to deter the possibility of multiple responses from a

single respondent. That is, in order to avoid having one individual provide multiple responses to the same survey, the software tracks the Internet Protocol (IP) addresses of the user and only permits one response per IP address.

Participants were invited to participate by having administrative staff send an email (drafted by the author of the study and approved by IRB) to all students enrolled in a teaching-method class (which is required in order to become a pre-service teacher). After 10 days, non-responders received a reminder email send out by the same administrative staff (i.e., students' advisor) to fill out the survey. In addition, the students' instructors were asked to remind students (who were willing to participate) to go online and fill out the survey. After another 10-day period, a second reminder was sent. No more reminders were sent after the second prompt.

G\* Power Analysis (Faul, Erdfelder, Lang, & Buchner, 2007) was used to calculate the necessary sample size. A power analysis aiming for a power of .71, with an alpha of .05 determined that a minimum of 100 participants was needed to obtain statistical significance if indeed it was present. Assuming a desired 30% response rate, a sampling pool size of about 300-350 students was desired.

It is important to note that for the purpose of this study, pre-service teachers were not identified on any of the measures used in this study. No identifiable information was collected (e.g., names, students' ID number, and such). For those individuals wanting to participate in the raffle, a unique confidential confirmation number (at the end of the survey) was supplied that permitted the principal investigator to document that a

particular survey had been filled out. All confirmation numbers and participants' email addresses were destroyed at the end of the data-collection phase.

Once volunteer pre-service teachers' logged into the online survey, they were asked to: (a) read the Information-Sheet, (b) fill out the demographic form, and (c) respond to a series of questions. In lieu of the consent form (this is an anonymous study) participants were presented with the Information Sheet required by the Institutional Review Board (IRB). The Information Sheet provided facts about the risks and the benefits for participating in this study as well as the participants' rights and the voluntary nature of their participation. Next, pre-service teachers were asked to fill out the Demographic Self-report Questionnaire.

Each participant was then randomly presented with an online screen version of three vignettes (i.e., an externalizing case, an internalizing, and a neutral case) described below. In each vignette, the ethnicity of the character remained constant (i.e., all three Hispanic, all three White, or all three African-American). The combination of vignettes is depicted in Table 1

Table 1

*Vignettes Combinations*

Expressions	Case-One	Case-Two	Case-Three
<u>Externalizing (EXT)</u>	White	Hispanic/Latino	African American
<u>Control/Neutral (C)</u>	(W)	(H/L)	(AA)
<u>Internalizing (INT)</u>			

Working on a computer, participants were presented with a text box containing the mock student's *Cumulative Student Record* information. In the middle of the screen, was a text box with the first of three *Vignettes* (scrolling down might be required depending on the size of the monitor in the participant was using), and at the bottom of the page participants were asked to answer the *Teacher Response Plan (TRP)*.

It is important to note that after completing the first *Vignette*, participants were then directed to another screen/webpage containing the second *Vignette*, and then a third screen/webpage listing the last *Vignette*. The cases (i.e., ethnic/race of the student) and vignettes (i.e., behaviors) were randomly presented such that an equal number of individuals were presented with the EXT vignette first, versus the INT vignette, and the Neutral vignette. The reaction-time or response-timing for each vignette was also monitored in order to take into account factors such as response fatigue.

Participants were required to completely fill out the *Teacher Response Plan* (of the first out of a three vignettes presented to each participant) as a condition of moving to the next webpage/screen listing the next vignettes. Participants were instructed that they were not going to be allowed to return to the previous page/screen once they had submitted their *Teacher Response Plan* responses and had requested the next vignette by pressing the Submit Final Answers and/or go to the Next Page button. The goal was to capture the participant's first impression (i.e., perception). Once all vignettes were answered, participants were asked to complete a likert survey assessing their general knowledge of what constitutes indicators of emotional behavioral disturbance among students.

Participants received one of three possible cases (see above). Each case consisted of three mock students of the same ethnicity with varying behavior types (i.e., externalizing, internalizing, and neutral). For instance, if a participant was given Case-One, she first read the student's school cumulative folder and the vignette of a Caucasian student with a given set of behaviors and was then asked to fill out the *Teacher Response Plan* (TRP) survey. Then the participant would move to a new screen (with another school cumulative folder, vignette, and a TRP) but this time the information was about a Caucasian student with an alternative set of behaviors (e.g., neutral vignette), and lastly the case of another Caucasian student but with internalizing behavior types. It is important to reiterate that the three possible sets of behaviors were presented randomly across participants. Cases two and three had the exact same language in the cumulative folders and vignettes but the race/ethnicity of the student was changed. Specifically, for case number-two the student was Hispanic/Latino and for case three the student was African/American.

### *Analysis*

A series of One-way Analysis of Variance (ANOVA) analyses were utilized to determine whether risk likelihood for referral as interpreted by a high TRP score status was a function of teachers' perception of the students' behaviors as measured by type of behavior (i.e., externalizing, internalizing, and neutral/control) and ethnic background (Caucasian, Hispanic, and African American). In the present study, there were two independent variables (IVs) and each IV has different levels or categories. For instance, the first IV was the type of EBD-like behavior (i.e., with three categories or levels

namely internalizing, externalizing, and Neutral/no EBD behaviors) and the second IV is the students' ethnic/racial background (i.e., three levels, H/L, AA, or W). For descriptive purposes, percentages were used to assess the amount of exposure to diversity of the sample, in terms of (a) their exposure to diversity while attending school (i.e., kindergarten to high school), and (b) whether or not they have taken a class on diversity as part of their teaching degree. Lastly, in order to gain a better understanding of pre-service teacher respondent's knowledge of what constitutes EBD, the response to the *Assessment of EBD Knowledge* instrument was presented using descriptive statistics (i.e., mean and standard deviations).

The primary purpose of this analytic strategy (i.e., ANOVA) was to determine if teacher perceptions of mock student's behavior and ethnicity interacted. The purpose was premised on findings that, on average, externalizing behaviors are the primary source for most of the EBD referrals (Skiba et al., 2003). It is also known that when teachers attribute certain behaviors as culturally-bound they are less likely to refer students to specialized (i.e., psycho-educational) services (Cartledge and Kourea, 2008). Yet it is still relatively unknown whether or not the student's ethnicity and/or the type of behavioral expression moderate teachers' perception of students' behavior. Table 2 summarizes the framework used in of the present study.

Table 2

*Research Model*

		Dependent Variable (DV)	
Independent Variables (IVs)	0 White	00 Externalizing	At-Risk Score (ARS) ranges from 1 to 24 for each individual case-study Vignette
		01 Neutral/Control	
		02 Internalizing	
	1 Latino	10 Externalizing	
		11 Neutral/Control	
		12 Internalizing	
	2 Black	20 Externalizing	
		21 Neutral/Control	
		22 Internalizing	

*Research Questions and Anticipated Findings: Working-Hypotheses*

1. Does the students' ethnic/racial background moderate the teachers' at-risk score (ARS) obtained in the TRP regardless of the type of behavior displayed (i.e., EXT versus INT)?

Hypothesis One (H1): When looking at the risk of being referred across ethnic/racial groups, Hispanic/Latino students are going to be less likely than White and African American to be perceived as having EBD-like behavior thereby less likely to be referred.

2. Does the type of behavioral expression (i.e., externalizing versus internalizing) moderate the ARS obtained in the TRP regardless of ethnic/race?

Hypothesis Two (H2): When factoring in the type of behavioral expression (EXT versus INT), students with internalizing behaviors are going to be less likely than those exhibiting externalizing behaviors to be perceived as at-risk regardless of their ethnic/racial background.

3. Is there an interaction effect between H/L students exhibiting internalizing behaviors that systematically result in a lower at risk score (ARS)?

Hypothesis Three (H3): An interaction effect between behavioral expression (i.e., INT) and the ethnic/racial background (i.e., H/L) of the students will account for a disproportionate under-identification of Hispanic/Latino students as at-risk. That is Hispanic/Latino students with internalizing behaviors are going to have an under-referral pattern (i.e., lower ARS than AA and Whites) that will mirror to some degree the current national trends of under-representation of H/L in EBD services when compared to other ethnic/racial groups and behaviors types.

4. Is there an interaction effect between AA students exhibiting externalizing behaviors that systematically result in a higher ARS?

Hypothesis Four (H4): An interaction effect between behavioral expression (i.e., EXT) and the ethnic/racial background (i.e., AA) of the students will account for a disproportionate over-identification of African American students as at-risk. That is African/American students with externalizing behaviors are going to have an over-referral pattern that will mirror to some degree the current national trends

of over-representation of AA in EBD services when compared to other ethnic/racial groups and behaviors types.

## CHAPTER IV

### RESULTS

Using survey methods, the purpose of this study was to shed light on the possible role of teachers' perceptions and their ratings of risk for EBD-like behaviors of H/L students across behavioral conditions. The data analytic strategy consisted of a series of one-way analyses of variance (ANOVA; Thompson, 2006) to address the research questions posed in the methodology section.

Two main effects and two interaction effects were explored: (a) does the students' ethnic/racial background moderate the teachers' at risk score (ARS) regardless of the behavior displayed?, (b) does the type of behavioral expression moderate the ARS regardless of ethnic/race?, (c) is there an interaction effect between H/L students exhibiting internalizing behaviors that systematically results in a lower ARS?, and (d) is there an interaction effect between AA students exhibiting externalizing behaviors that systematically results in a higher ARS? The independent variables used in this study consisted of the race/ethnic background and the behaviors displayed by the students described in the vignettes presented to pre-service teacher participants. The dependent (outcome) variable consisted of the participant's response to a likert-scale indicating perceived severity of behaviors (i.e., at-risk score; ARS) described in the vignette and thus their likelihood of a referral decision.

Using the Qualtrics software, 114 current students enrolled in one of the junior or senior level method classes (i.e., field teaching practicum) completed the online survey. Participants, also known as pre-service teachers, were randomly assigned to one of three

vignettes as follows: 40 pre-service teachers received the Caucasian student vignette, 36 received the Hispanic/Latino student vignette; and 38 received the African American student vignette. Regardless of the racial/ethnic group assigned, all participants received the exact same vignette depicting three types of student's behavior (i.e., externalizing, internalizing, or Neutral). No statistical significant difference was found in the average reaction-time or response-timing across vignette (i.e., the order in which the externalizing, internalizing, or neutral vignettes were presented), which indicates that issues of response fatigue was not a determining factor in the finding of the present study.

The demographic characteristics of the respondents was collected and divided into three areas: (a) basic demographic (i.e., age, gender, & race/ethnic), (b) academic background (i.e., academic program enrolled & the college year), and (c) exposure to diversity (i.e., schooling and classes on diversity).

The demographic make up of the sample was as follows (in parenthesis the actual number of participants out of a sample  $n = 114$ ): Age ranges: 97% ( $n = 111$ ) was 20-25, 2% ( $n = 2$ ) 26-29, and 1% ( $n = 1$ ) older than 40; Gender: 99% ( $n = 113$ ) female and 1% ( $n = 1$ ) male; Race/ethnicity: 89% ( $n = 101$ ) Caucasians, 1% ( $n = 1$ ) African American, 8% ( $n = 9$ ) Hispanic/Latino, and 2% ( $n = 3$ ) Biracial. The basic demographic make-up of the sample (i.e., predominantly white females in their 20s) paralleled the national teacher demographics (see Thomas et al., 2009).

The academic background of the sample was as follows: Program enrolled in 97% ( $n = 111$ ) general education and 3% ( $n = 3$ ) enrolled in programs identified as

“other”; College level academic year 89%( $n = 101$ ) senior level and 11%( $n = 13$ ) junior level students. The academic background shows that the sample was made up of primarily general education, pre-service teachers in their senior year of college.

The exposure to diversity was defined as: (a) exposure to diversity while attending primary and secondary school, and (b) whether or not any class had been taken on diversity as part of their pre-service teaching coursework. It is important to note that participants were not asked to specify which diversity class was taken but rather whether or not they took a class on “diversity issues.” The prior experience with diversity results were as follows: 30%( $n = 34$ ) of the sample attended schools with low levels of diversity (i.e., less than 10% of the student population were of a diverse background), 40% ( $n = 46$ ) of the participants attended schools with a 11-50% of diversity make-up, 23% ( $n = 26$ ) of the participants attended schools with 51%-89% of diversity, and 7%( $n = 8$ ) of the sample attended schools with high levels of diversity (i.e., enrollment greater than 90%). In terms of taking a class on diversity as part of their curriculum, 99% ( $n = 113$ ) of the sample had taken at least one class on diversity issues, whereas 1% ( $n = 1$ ) had not. As expected, there was a high level of variability in the amount of exposure to diversity in the sample of pre-service teachers. Nonetheless, a large majority of the sample had taken at least one course on diversity as part of their undergraduate coursework.

In addition to the *Demographic Self-Report Questionnaire*, participants were assessed on their knowledge of what constitutes an emotional behavioral disturbance disorder using the *Assessment of EBD Knowledge* questionnaire. Results indicated that on average, pre-service teachers were uncertain as to what constituted a “typical” EBD profile. Specifically, pre-service teachers failed to distinguish EBD from non-EBD characteristics. Furthermore, results showed that pre-service teachers were generally unaware of the need for a given student to have an educational need in addition to presenting with emotional/behavioral distress as a condition for qualifying under the EBD category. As observed in Table 3, on average, pre-service teachers assigned an EBD label (i.e., a mean score higher than 2.5) to all but two statements an indication of their lack of familiarity as only statements 2, 4, 6, 7, and 11 were indicative of an EBD-like behaviors, whereas statements 1, 3, 5, 8, 9, 10 did not meet definitional criteria (according to IDEIA) as outlined by the U.S. Department of Education (Cullinan & Sabornie, 2004).

Table 3

*Assessment of EBD Knowledge*

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Statement	Mean	SD
1	2.13	0.62
2	3.39	0.56
3	2.13	0.65
4	3.41	0.61
5	2.71	0.69
6	3.31	0.65
7	3.44	0.65
8	2.53	0.68
9	2.80	0.61
10	2.99	0.59
11	3.50	0.55

---

*Research Question One*

*Does the students' ethnic/racial background moderate the teachers' at-risk score (ARS) obtained in the TRP regardless of the type of behavior displayed (i.e., EXT versus INT)?*

Research question one was analyzed using a one-way ANOVA. The independent variable (i.e., race/ethnicity) had three levels: White, African Americans, and Hispanic/Latino. The outcome (i.e., dependent) variable was quantified using the at-risk score or ARS assigned by the pre-service teacher. Specifically, participants were asked to indicate their perceptions on the severity of the students' behavioral, emotional, and academic status using a one-to-four likert-scale where four represented a higher level of severity (i.e., higher risk for EBD-like behaviors). The sum of the responses to all statements within the TRP for each vignette resulted in the ARS score (i.e., outcome variable). Results were summarize in Table 4

Table 4

*Descriptive Information of the TRP for Question One*

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Source	N	Mean	SD	SE
White	40	14.33	1.29	.20
Hisp	36	10.31	1.97	.33
Black	38	10.47	2.59	.42
Total	114	11.77	2.74	.26

---

Results of the one-way ANOVA (i.e., degrees of freedom: between = 2 and within = 111;  $F=49.84$ ;  $p$  value= .00; and effect size  $\eta^2 = 47.31\%$ ) showed that regardless of the behaviors displayed, when compared to White students ( $M = 14.33$ ,  $SD = 1.29$ ), Hispanic /Latino ( $M = 10.31$ ,  $SD = 1.97$ ) and African American ( $M = 10.47$ ,  $SD = 2.59$ ) students were less likely to be perceived by the pre-service teachers as having EBD-like behaviors as evidenced by their scores on the TRP. It was hypothesized that when looking at the ARS across ethnic/racial groups, Hispanic/Latino students were going to be less likely than White and African American to be perceived as having EBD-like behaviors thereby less likely to be referred.

These results partially support the hypothesis posited in research question one. That is Hispanic/Latino students were indeed less likely to be perceived as having EBD-like behaviors when compared to White students. However, the findings (i.e., means comparisons) suggest that the data failed to support the hypothesis that when compared to African American (AA), Hispanic/Latino students were also going to be less likely to be perceived as having EBD-like behaviors. Closer examination of the data showed some notable variations. Specifically, pre-service teachers showed a higher level of agreement when evaluating the behaviors among White and H/L students (i.e., standard deviation of  $SD = 1.29$  and  $SD = 1.97$  respectively) than when evaluating the behavior of AA students (i.e., standard deviation of  $SD = 2.57$ ). The variability in agreement among participants when evaluating the behavior of AA students impacted the margin of error, making the results for AA subject to a higher degree of error. These findings held true even after a Bonferroni correction post hoc test.

*Research Question Two*

*Does the type of behavioral expression (i.e., externalizing versus internalizing) moderate the ARS obtained in the TRP regardless of ethnic/race?*

The second research question was analyzed using one-way ANOVA. The independent variable (i.e., type of behaviors) had three levels: (a) externalizing (EXT) behaviors, (b) internalizing (INT), and (c) Neutral or no EBD-like behaviors. Every participant received the same vignettes describing each of these types of behaviors but varying by ethnicity. The outcome variable was the ARS assigned by the pre-service teacher. Results are summarized in Table 5.

Table 5

*Descriptive Information of the TRP for Question Two*

Source	N	Mean	SD	SE
EXT	114	18.39	2.371	.22
INT	114	16.94	2.532	.24
C	114	11.77	2.743	.26

Findings of the one-way ANOVA (i.e., degrees of freedom: between = 2 and within = 339;  $F=211.43$ ;  $p$  value= .00; and effect size  $\eta^2 = 55.50\%$ ) showed that regardless of the race/ethnicity, students exhibiting externalizing behaviors were, by far, more likely to be perceived as at-risk, followed by internalizing behaviors, and Neutral

respectively. It was hypothesized that when factoring in the type of behavioral expression (EXT versus INT), students with internalizing behaviors were going to be less likely than those exhibiting externalizing behaviors to be perceived as at-risk on the TRP regardless of their ethnic/racial background.

These results supported the hypothesis posited in research question two. That is, students with internalizing behaviors were indeed less likely to be perceived as at-risk for having EBD-like behaviors when compared to students with externalizing behaviors. These findings held true even after a Bonferroni correction post hoc test. Therefore, as it stands, results indicate that as hypothesized pre-service teachers were more likely to perceive externalizing behavior as an indication of having EBD-like behaviors when compared to internalizing behaviors.

### *Research Question Three*

*Is there an interaction effect between H/L students exhibiting internalizing behaviors that systematically result in a lower ARS?*

Research question number three was analyzed using one-way ANOVA. The independent variable had three levels as follows: White exhibiting internalizing behaviors, Hispanic/Latinos exhibiting internalizing, and African Americans exhibiting internalizing behaviors. While all participants received the same internalizing vignette, as previously noted, ethnicity/race was randomly assigned. The outcome variable referred to the at-risk-score (ARS) was obtained from the average value of the *Teacher Response Plan (TRP)* instrument.

It was hypothesized that an interaction effect between behavioral expression (i.e., INT) and the ethnic/racial background (i.e., H/L) of the students would account for a disproportionate under-identification of Hispanic/Latino students as at-risk for EBD-like behaviors. That is, according to pre-service teacher perceptions, Hispanic/Latino students with internalizing behaviors were expected to have an under-referral pattern (measured as having a significantly lower ARS on the TRP) that would be analogous to the current national trend of under-representation of H/L in the EBD services. The ANOVA results (i.e., degree of freedom: between = 2; within = 111;  $F = .26$ ;  $p = .77$ ; and effect size  $\eta^2 = 0.46\%$ ) failed to support the hypothesis posited in research question three. Therefore, as it stands, results indicate that Hispanic/Latino students with internalizing behaviors ( $M = 16.92$ ;  $SD = 2.48$ ) were not less likely to be perceived at at-risk when compared to White ( $M = 17.15$ ;  $SD = 2.61$ ) and African Americans ( $M = 16.74$ ;  $SD = 2.55$ ) students who also exhibited the same degree of internalizing behaviors.

#### *Research Question Four*

*Is there an interaction effect between AA students exhibiting externalizing behaviors that systematically result in a higher ARS?*

Research question four was analyzed using one-way ANOVA. The independent variables had three levels as follows: White exhibiting externalizing behaviors, Hispanic/Latinos exhibiting externalizing, and African Americans exhibiting externalizing behaviors. Once gain all participants received the same vignette (i.e., externalizing) but ethnicity/race was manipulated. The outcome variable referred to the

at-risk score (ARS) was obtained from the average total score of the *Teacher Response Plan* (TRP) instrument. Table 6 depicts the results of research question four.

Table 6

*Descriptive Information of the TRP for Question Four*

Source	N	Mean	SD	SE
White	40	18.50	2.80	.44
Hisp	36	18.42	1.87	.31
Black	38	18.24	2.35	.38
Total	114	18.39	2.37	.22

It was hypothesized that an interaction effect between behavioral expression (i.e., EXT) and the ethnic/racial background (i.e., AA) of the students would provide insight into the disproportionate over-identification of African American students as at-risk. That is, according to pre-service teacher perceptions, AA students with externalizing behaviors were expected to have an over-referral pattern (measured as having a significantly higher ARS) that would be analogous to the current national trend of over-representation of AA in the EBD services. Yet, there was no significant interaction effect.

The ANOVA results (i.e., degree of freedom: between = 2; within = 111;  $F = .12$ ;  $p$  value = .86; and effect size  $\eta^2 = 0.002\%$ ) failed to support the hypothesis posited in research question four. However, when looking at the descriptive statistics an interesting picture emerged. The aforementioned analysis was conducted through a comparison of mean scores across ethnic/racial groups exhibiting the exact same set of externalizing behaviors. Although, no significant difference was found between these groups (i.e., all groups had, to some degree, the same likelihood to be perceived as at-risk), when looking at the standard deviations of each mean score one can better understand the degree to which pre-service teacher participants agreed on their responses. Specifically, it was noted that participants were more likely to agree (i.e., less spread on mean scores) when it came to identifying Hispanic students with externalizing behaviors as at-risk than when judging the severity of the same behavior among White and African Americans. That is while for White and African American students the standard deviation was 2.80 and 2.35 respectively, for Hispanic students the standard deviation was 1.87. Nonetheless, these results indicated that African Americans were not more likely to be perceived as at risk.

## CHAPTER V

### SUMMARY

Using survey methods and vignettes, the purpose of this study was to explore the role of teachers' perceptions and their subsequent ratings of at-risk for EBD-like behaviors regarding Hispanic/Latino students across behavioral conditions.

Two main effects and two interaction effects were explored in the present study: (a) does students' ethnic/racial background (i.e., Hispanic/Latino, African Americans, or Whites) moderate the magnitude of teachers' total at-risk score (ARS) on the Teacher Response Plan (TRP: a four-point rating scale) regardless of the student's behavior depicted in the vignette, (b) does the type of behavioral expression (i.e., externalizing – EXT– versus internalizing –INT–) moderate the total at risk score on the TRP regardless of student's ethnic background?, (c) is there an interaction effect between H/L students exhibiting internalizing behaviors that systematically results in a lower ARS on the TRP?, and (d) is there an interaction effect between AA students exhibiting externalizing behaviors that systematically results in a higher ARS on the TRP?

The independent variables used in this study consisted of: (a) the race/ethnic background of the student and (b) the type of EBD-like behavioral expression (i.e., externalizing or internalizing behaviors) displayed by the students described in the vignettes presented to the pre-service teacher study participants. The dependent (outcome) variable consisted of the total score on the TRP (a researcher-developed likert measure for this study). The TRP measured the respondents' perceived severity of

student behavior described in the vignette and subsequently their likelihood to refer the student to any “specialized intervention or interventions (i.e., Tier III).”

In this study, approximately, 300 pre-service teachers were invited to participate by their departmental academic advisor via a weekly email sent for three consecutive weeks during October of the 2009 fall semester. Of the initial pool of teachers, 114 responded to the email invitation to participate in an electronic survey. The electronic survey incorporated several researcher-developed instruments including: (a) vignettes that depicted three possible scenarios (i.e., a student exhibiting externalizing behaviors, one with internalizing behaviors and one with no obvious EBD-like behaviors), and (b) the Teacher Response Plan (TRP) survey. An additional researcher-developed instrument (i.e., Assessment of EBD Knowledge) measured pre-service teacher participants’ knowledge of the five federally defined EBD criteria (U.S. Department of Education, 2009a). Lastly, a demographic self-report questionnaire was administered to collect data on the participants’ gender, age, ethnic/racial background, student status/level (i.e., pre-service teacher status), and prior exposure to diversity and multiculturalism. The overall response rate was 38%.

The first study question examined the likelihood for a given ethnic/racial group (i.e., Caucasian, African American, and Hispanic/Latino) to be over- or under-identified as EBD based solely on their ethnic background. As hypothesized, Hispanic/Latino were indeed less likely than White students to be identified and/or perceived as possessing EBD-like behaviors by pre-services teachers regardless of the behaviors displayed (i.e., externalizing or internalizing). This result is consistent with the findings of a number of

national reports (e.g., U.S. Department of Education, 2001, 2007, 2009a) and most notably from two landmark research syntheses documenting the historic trend of underrepresentation of H/L students in the EBD category (i.e., Coutinho & Oswald, 2000; & Skiba et al., 2008). In fact, Skiba et al. referred to the disproportionately representation of minority studies in special educational services as a “very old problem.”

The finding that when compared to White students, H/L were less likely to be perceived as displaying EBD-like behaviors, was also consistent with the work of Dobbs & Arnold (2009) who found that teachers’ perception of the students’ behavior influences their behavior and attitudes toward those students. In this particular case, it’s argued that pre-service teachers’ perceptions were likely moderated by the student’s ethnicity. That is, when Hispanic/Latino students present with EBD-like behaviors, pre-service teachers showed a tendency to under-rate those behaviors as evidence of EBD-like behaviors regardless of whether they were externalizing or internalizing, (as documented by the lower ARS on the TRP given to H/L versus White students). Nonetheless, when White students presented with the exact same profile of behaviors, pre-service teachers were more likely to perceive those behaviors as a sign of having EBD-like behaviors even though they were the exact same vignettes.

From an attribution theory perspective, one can reasonably assume that pre-service teachers were making different attributions about behaviors (regardless of whether they were externalizing or internalizing) based on the student’s ethnicity. Specifically, attribution theory posits that one’s (e.g., teacher) explanation for another’s

(e.g., student) behavior can vary along a continuum by applying an internal or an external attribution to explain that behavior. The findings from this study reasonably suggest that pre-service teachers might be explaining the EBD-like behaviors in H/L as part of their nature or culture (an internal attribution). In other words, instead of perceiving their behavior as a sign of EBD-like behaviors, they reasonably attributed their behaviors to mere cultural differences. It is important to note that this question averaged the at-risk score (or ARS) of students with internalizing and externalizing behaviors in order to only look at ethnic differences. Therefore one cannot say what specific cultural differences (i.e., internalizing or externalizing type of behaviors) pre-service teacher participants used to form their decision; what can be said is that on average when White students displayed the exact same behaviors, pre-service teachers perceived it as problematic because they assigned a higher at-risk scores. Therefore, it is possible that pre-service teachers are explaining EBD type of behaviors (i.e., internalizing and externalizing) among White as a sign of an emotional or behavioral difficulty or problem (i.e., an external attribution) but explaining or perceiving the exact same type of EBD-like behaviors among H/L as a sign of their culture (an internal attribution).

Another possible explanation, for the present findings can be found in the work of Cullinan & Sabornie (2004). These researchers looked at how extrinsic factors such as race, ethnicity and gender influence teacher perceptions of EBD. They found that when it comes to Hispanic/Latino males, teachers were unable to distinguish between H/L males with EBD behaviors and H/L males without EBD behavior. Their finding showed

that teachers were misreading the behavioral cues that indicate EBD among H/L males. The present study, in part, supports their findings by demonstrating that, in light of the same behaviors, predominantly White teachers do tend to make different decisions by ethnic group (i.e., H/L versus Whites students). Nonetheless, this study supports the idea that this tendency (i.e., teacher's perception being moderated by ethnicity) is present early during a teacher's undergraduate training (i.e., pre-service years).

In addition to comparing H/L with White students, the first question also compared the likelihood of H/L to be perceived as having EBD-like behaviors in comparison to African American (AA) students. The findings were unexpected. Contrary to expectations, AA student's behavioral expression was *not* more likely to be perceived by the pre-service teachers as EBD-like behaviors. As per national statistics (U.S. Department of Education, 2009a), AA students are over-represented in the EBD category of the SPED system and H/L are under-represented. Therefore, it was expected that when comparing these two groups, AA students were going to be more likely than H/L to be perceived as demonstrating EBD-like behaviors; therefore a likely referral. Yet this was not the case. Nonetheless, it is worth noting that pre-service teachers displayed somewhat higher levels of disagreement when rating the behavior of AA students, as measured by the obtained mean and standard deviation scores (i.e., standard deviation scores was  $SD = 1.29$  for Whites,  $SD = 1.97$  for H/L, and  $SD = 2.59$  for AA). The means of the ARS for H/L and AA were similar (i.e.,  $M = 10.31$  and  $M = 10.47$  respectively); however, given that the standard deviation was slightly higher for AA than

for H/L, one can conclude that although AA and H/L had similar ARS, pre-service teachers were more uncertain when rating the behavior of African American students.

One possible explanation for the unexpected findings for AA students might be explained by the work of Serwatka, Deering, & Grant (1995). In a previous study, these authors found that Caucasian teachers are more likely to mistakenly assess the behavior of AA students (e.g., view it as overly negative) when there is an imbalance or a lack of AA peers (e.g., a school/setting with very few AA teachers). Results of the demographic questionnaire showed that the participants of the present study were almost exclusively White with a considerable number of them having minimal prior exposure to diversity. In applying the conceptual framework of Serwatka, et al., to the present findings, it is possible that factors such as lack of exposure to the AA culture –among some of the participants– could have played a role in the slightly higher level of disagreement observed when pre-service teachers were evaluating the behaviors of African American students. That is, while some participants might have been familiar with the AA culture other did not and as a result there was a disagreement in the way they rated the behaviors among AA students.

The second research question assessed whether a given behavioral expression (i.e., internalizing versus externalizing behaviors) moderated the ARS regardless of the ethnic/racial background of the students. Externalizing behaviors refer to those behaviors that are observable (e.g., acting out, being disruptive, and/or oppositional), internalizing behaviors, on the other hand, are less observable behaviors such as being withdrawn, quiet, shy and depressed (Araujo-Dawson, & Williams, 2007). It was hypothesized that

students with externalizing behaviors (as depicted in the vignettes) were going to be more likely than those exhibiting internalizing behaviors to be perceived as at-risk for EBD-like problems (as measured by having a higher ARS on the TRP). Results confirmed the hypothesis posited in research question two. That is, students exhibiting externalizing behaviors were by far more likely to be perceived as at risk for EBD-like behaviors than any other type of behaviors as measured by the mean (ARS) scores (i.e., externalizing mean was  $M = 18.39$ , internalizing mean was  $M = 16.94$ , and the Neutral student was  $M = 11.77$ ) on the TRP. These results provide supporting evidence for the works of Riccio, et al. (2003), Skiba et al. (2003), and Walbrath et al. (1998) who found that externalizing behaviors were the driving force behind EBD evaluations and subsequent placement.

At this point, it is important to discuss the findings of research question two in light of the role of the multi-tier Response to Intervention (RtI) model in special education. RtI is a recently nationalized strategy to identify students who are at risk for academic failure and provide the needed services in a scaffolding fashion (Fuchs, Mock, Morgan, & Young, 2003). General education is referred to as the first tier of intervention, whereas small-group interventions are referred to as the second tier (Fuchs, Mock, Morgan, & Young). When students are placed in the second tier, their performance is closely monitored and depending on their improvement, or lack of, they are placed back into unsupported-general-education (tier one) or move into a third tier of intervention or assessment for special education. The RtI model has been credited as having the potential to be more objective (i.e., data driven) than the traditional

intelligence-achievement discrepancy-model (Sullivan, et al., 2009b). Interestingly, the finding of this study failed to support that claim. Specifically, as part of the present study, pre-service teachers were informed that: (a) the cases were from students already identified and placed in the second-tier of services, and (b) that a number of second tier interventions were used and failed to improve the students performance. Furthermore, the vignette documented the current students' lack of progress. The RtI progress-monitoring data presented in the cum-folder and vignettes, did not appear to assist pre-service teachers to make an adequate determination, in terms of identifying students presenting internalizing problems as in need for an EBD referral at the same rate than those students presenting with externalizing behaviors. Instead, as documented by the present study, pre-service teachers followed the traditional stand of making a determination on the severity of behaviors based primary on the type of behaviors (i.e., externalizing) displayed. This finding could also be interpreted as documenting a lack of understanding of pre-services teachers (i.e., teachers in training) of what RtI entails.

At this point, there is need to take a closer look at the interplay between the expression of maladaptive (internalizing versus externalizing) behaviors and culture (H/L and AA). This possibility was explored in research questions three and four.

The third and fourth questions looked at interaction effects. Specifically, the third question looked at the interplay between ethnicity and internalizing behaviors. It was hypothesized that Hispanic/Latino students displaying internalizing behaviors were going to be less likely than Whites or AA to be perceived as having EBD-like behaviors as shown by a higher ARS on the TRP. Results failed to support the hypothesis posited

in research questions three. In the same vein, the fourth research question aimed to determine if African American students with externalizing behaviors were more likely to be perceived as at risk for EBD-like behaviors when compared to other ethnic/racial groups. Results failed to support the hypothesis posited in research question four as well. It can be argued that the lack of interaction effects was an artifact of the limited real-life experience of the sample.

### *Limitations*

At this point, as in any study, it is important to note that there were a number of limitations to the present work that may limit its generalizability. Specifically, a potential limitation to this study is known as self-selection bias. That is, it is possible that the pre-service teachers that agreed to participate in this study shared common qualitative variables (e.g., readily volunteer) and as such, they are not necessarily representative of the general population of pre-service teachers. In addition, participants were predominantly white females, in their mid-twenties and from a southern university, which may represent the view of a segment of the pre-service teacher population that is not necessarily representative. It is reasonable to assume that if the present findings were replicated in another university with a more diverse student body of pre-service teachers (e.g., more African-American teachers) the results might have been different. Lastly, the usage of a survey in itself is a limitation. Surveys gather information on what pre-service teachers say they would do or how they perceive things rather than information on what they actually do. This is particularly relevant when dealing with socially unacceptable issues such as having preconceived notions about certain racial/ethnic groups. Again, it

is possible that these findings are not necessarily a reflection of what these pre-service teachers would actually do on a real life setting in which they might be dealing with students of different ethnic/racial backgrounds.

#### *Recommendations for Future Research*

To begin with, and in order to validate these findings, a replication study in a natural setting is strongly recommended. Another area for future research is to replicate this study with pre-service teachers but differentiating or controlling for their prior exposure to diversity. Specifically, while the present study took into account the amount of prior exposure to diversity by: (a) asking participants to estimate the percentage of diverse populations in the schools they attended, as well as, (b) reporting whether or not they took a class on diversity, if was not clear what kind of diversity they were exposed to (e.g., racial, cultural, linguistic, etcetera). A study that further explores what kind of diversity pre-service teachers have being exposed to in terms of the specific ethnic groups they are familiar with, could provide a better framework at the time of interpreting findings such as the results indicating that participants displayed slightly higher disagreement when rating the behaviors of African Americans students (see research question one).

#### *Tentative Implications*

There are several tentative, yet practical implications for teachers in training, school districts and educational institutions as well. For instance, given that: (a) when compared to White students, Hispanic/Latinos were less likely to be perceived as having EBD-like behaviors regardless of the behaviors displayed, and (b) that externalizing

behaviors were the strongest predictors to be perceived as at-risk for EBD-like behaviors (even after presenting RtI data indicating an educational and emotional/behavioral need for intervention), it is necessary to take a closer look at the way pre-service teachers are trained. It is important to examine pre-service training coursework. That is, they might also benefit from training that highlights the importance of distinguishing between cultural differences, and culturally bound behaviors versus non-culturally bound behaviors. That is, regardless of the cultural background of the student, the ability to recognize a true behavioral disorder from behaviors that might be culturally mediated. Lastly, teachers-in-training, as well as those out in the field, might also benefit from an education or professional development that will promote self-exploration in order to deconstruct, analyze, and better understand how ones own biases influence ones perspectives and judgments of others (e.g., Sullivan et al., 2009a,b). Specifically, in terms of exploring possible preconceived notions (biases) ones could have about how individuals of other cultural and racial background behave.

The theoretical backbone of the present study was Heider's attribution theory (1958, as cited in Dobbs & Arnold, 2009). This theory is of particular relevance given that, in part, results of the present study can be explained in terms of attribution theory principles. Specifically, it was shown that teachers appeared to make attributions based on demographic variables (i.e., ethnicity) and type of behavioral expressions (i.e., externalizing behaviors). Therefore, a curriculum designed to address these attributional tendencies of pre-service teachers (or through professional development) might begin to address the apparent early attributions teaches make as evidenced in the present study.

### *Conclusion*

In response to the question of, whether or not teachers' perceptions may be linked to their subsequent referral decision-making practices regarding Hispanic/Latino students across EBD-like behavioral conditions, the present study offers some insight. In this study we learned that: (a) when compared to White, Hispanic/Latino students are indeed less likely to be perceived by the pre-service teachers as exhibiting EBD-like behaviors according to the TRP regardless of the behaviors displayed, (b) that externalizing behaviors are the strongest predictor for perceiving someone as at-risk for having EBD-like behaviors, and (c) that the RtI data (i.e., lack of a positive response to a tier II intervention) by itself might not necessarily be enough for a pre-service teacher to make an adequate determination of the need for an EBD referral. As such, it is recommended that researchers, policy-makers, and school officials engage in an active dialogue to promote what Daniel Reschley (1988) called the equal treatment criterion of fairness rule-A principle aiming for a more equitable (referral, assessment, and placement) processes in the educational system of the United States of America.

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## APPENDIX A

### RECRUITMENT EMAIL

**Principal Investigator:** Idalia Massa, M.A.

**Faculty:** Jorge Gonzalez, Ph.D.

**Project Title:** Teacher Perceptions of Student Behavior (Project: TPSB)

Dear junior/senior students,

We are trying to find out how teachers make some of the decisions regarding student behaviors in a classroom. This is an opportunity to participate in a study to help answer some important questions about teacher decision-making and actions. We are looking for junior or senior aggie students enrolled in any of the following classes: EC-6<sup>TH</sup>, TEFB410, 412, 413, RDNG467- MEFB352, 460, 470, and RDNG 490 or MEFB 352, 450, RDNG470, and 490.

The survey will not take more than 10-15 minutes and is confidential. It also has the potential to answer some very important questions.

As a bonus, if you answer the survey you will be entered to win one of 4 \$30 Barnes & Noble gift-cards to use as you like (e.g., coffee, magazines, books)

To participate in the 10 minutes survey, simply click on the follow link:

[http://tamucehd.qualtrics.com//SE?SID=SV\\_cTpRBPJgCztX91G&SVID=Prod](http://tamucehd.qualtrics.com//SE?SID=SV_cTpRBPJgCztX91G&SVID=Prod)

## APPENDIX B

### DEMOGRAPHIC SELF-REPORT QUESTIONNAIRE

**Principal Investigator:** Idalia Massa, M.A.

**Faculty:** Jorge E. Gonzalez, Ph.D.

**Project Title:** Teacher Perceptions of Student Behavior (Project: TPSB)

#### 2009-2010 Pre-service Teachers Demographic Form

<b>Program Enrolled:</b> <input type="checkbox"/> General Education <input type="checkbox"/> Special Education <input type="checkbox"/> Other
<b>Gender</b> <input type="checkbox"/> Female <input type="checkbox"/> Male
<b>Student Status:</b> <input type="checkbox"/> Senior <input type="checkbox"/> Junior
<b>Age:</b> <input type="checkbox"/> 20s <input type="checkbox"/> 30s <input type="checkbox"/> >40s
<b>Ethnicity/Race:</b>  <input type="checkbox"/> White/Caucasian <input type="checkbox"/> Black or African-American <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Other:
<b>Prior Experience with Ethnic/Racial Diversity:</b>  (1) Have you taken any college-level courses in culturally diverse students/classrooms or multiculturalism?  <input type="checkbox"/> Yes <input type="checkbox"/> No  (2) While growing up, how ethnically/racially diverse were the classrooms you attended (elementary through high school)?  <input type="checkbox"/> Very few to no ethnic minority students (10% or less) <input type="checkbox"/> Less than 50% <input type="checkbox"/> Greater than 50% <input type="checkbox"/> Mostly ethnic/racial minority students (90% or greater)

## APPENDIX C

### STUDENT CUMULATIVE RECORD

**Principal Investigator:** Idalia Massa, M.A.

**Faculty:** Jorge E. Gonzalez, Ph.D.

**Project:** TPSB

**Instrument:** Mock-student cumulative-folders

#### INTERNALIZING CASE (Label not provided during survey)

Student Cumulative Folder	Ivan
<b>Student Grade:</b> 7	<b>Age:</b> 13
<b>Gender:</b> Male	<b>Absenteeism:</b> Truant
<b>Ethnic/Race</b> White or Black/African American or Hispanic/Latino	
<b>Discipline Referrals:</b> Average	
<b>Previous Teacher Notes:</b>	
(1) The student already received a universal screening which indicated a need for a more intense educational and behavioral programming	
(2) School attempted a number of Tier II (e.g., more intense small group) social-skills interventions which did not improve the academic and/or behavioral performance of the student in the general educational classroom	
<b>Current Grades:</b>	
67	Math
85	Physical Education
50	Science
70	Language Art
49	Social Studies

#### EXTERNALIZING CASE

Student Cumulative Folder	Ed
<b>Student Grade:</b> 7	<b>Age:</b> 13
<b>Gender:</b> Male	<b>Absenteeism:</b> Truant
<b>Ethnic/Race</b> White or Black/African American or Hispanic/Latino	
<b>Discipline Referrals:</b> High	
<b>Previous Teacher Notes:</b>	
(1) The student already received a universal screening which indicated a need for a more intense educational and behavioral programming	

(2) School attempted a number of Tier II (e.g., more intense small group) social-skills interventions which did not improve the academic and/or behavioral performance of the student in the general educational classroom

**Current Grades:**

50 Math  
90 Physical Education  
49 Science  
67 Language Art  
70 Social Studies

**NEUTRAL CASE**

Student Cumulative Folder

Neo

**Student Grade:** 7      **Age:** 13

**Gender:** Male      **Absenteeism:** Average

**Ethnic/Race**      White or Black/African American or Hispanic/Latino

**Discipline Referrals:** None

**Previous Teacher Notes:**

(1) The student received a universal screening it was determined that there was a need for a more intense educational program

(2) School attempted a number of Tier II (i.e. small group) academic-behavioral interventions which to some extent improved the academic performance of the student in the general educational classroom

**Current Grades:**

78 Math  
95 Physical Education  
85 Science  
89 Language Art  
75 Social Studies

Definition: **Tier I**= general classroom curriculum,

**Tier II**= more intense small group for those who need some help and are considered at-risk;

**Tier III**= one-to-one help for those still not making any progress, or need much more assistance, could be pull-out.

## APPENDIX D

### CASE STUDY VIGNETTES

**Principal Investigator:** Idalia Massa, M.A.

**Faculty:** Jorge Gonzalez, Ph.D.

**Project Title:** Teacher Perceptions of Student Behavior (Project: TPSB)

#### **Externalizing Behaviors**

Ed is a 13-year old male student in the seventh grade. Ed is struggling academically. During your class, Ed bursts out answers out of turn and has a hard time following classroom rules. He does not turn in his homework and when confronted usually turns jumpy and agitated. You noticed that some of his classmates appear to be fearful of him. Last week Ed got into a physical fight with one of his classmates and ended up in-school suspension. Yet, on a few occasions, he has responded well to praises.

#### **Internalizing Behavior**

Ivan is a 13-year old male student in the seventh grade. He is extremely shy and never volunteers answers. You have noticed that Ivan avoids social interaction with his classmates, has poor eye contact, and when called upon in class he reacts in a somewhat timid manner. He once expressed that he just wanted to “go home” and be “left alone.” Ivan is usually the last person to be chosen in group projects by classmates. Although he is struggling academically, he does comply with basic classroom behavioral expectations such as being quiet and not disrupting the teaching process.

#### **Neutral/Control**

Neo is a seventh grade 13-year old student who has a somewhat average academic performance. He is popular among his classmates and is approachable. During class he is chatty so you have had to redirect him multiple times. You are a little bit concerned about his overall academic performance since you feel that he can do better. Last week the school coach came to your class and invited students to the basketball team tryouts. The coach did say that students would need a teacher’s recommendation. Neo was extremely interested and after class he approached you and asked for a recommendation. Although Neo’s in-class behavior is somewhat overactive, you are considering his request.

## APPENDIX E

### TEACHER RESPONSE PLAN

**Principal Investigator:** Idalia Massa, M.A.

**Faculty:** Jorge Gonzalez, Ph.D.

**Project Title:** Teacher Perceptions of Student Behavior (Project: TPSB)

#### Survey Instrument

<u>Teacher Response Record</u>				
1. How typical/normal is the student's behavior? *	Rare and abnormal	Not normal	Typical or normal	Very normal
2. How severe do you think the students' behavior is?	Not severe at all	Somewhat severe	Severe	Very severe
3. How would you describe the mental health of this student?*	Very poor	Poor	Good	Very good
4. How much assistance do you think you will need to handle the problem?	No help at all	Once a week	Once a day	Intensive help (Yes)
5. How likely are you to refer him to a specialized evaluations or interventions? (i.e. Tier III)	Would definitely not refer	Will not refer at the moment	Somewhat likely to refer	Will definitely refer
6. What is your opinion regarding his academic performance?*	Very poor	Poor	Good	Very good

Note: \* = item will be reverse scored.

## APPENDIX F

### ASSESSMENT OF EBD KNOWLEDGE

**Principal Investigator:** Idalia Massa, M.A.

**Faculty:** Jorge E. Gonzalez, Ph.D.

**Project Title:** Teacher Perceptions of Student Behavior (Project: TPSB)

**Instrument:** Pre-service teachers familiarity with attributes of Emotional Behavioral Disturbance (EBD) as defined by IDEIA

<b>Which of the following statements could possibly indicate an emotional behavioral disturbance (EBD)?</b>	1 Definitely Not likely	2 Not Likely	3 Likely	4 Very Likely
The student is well-behaved but, the achievement is well below expected (deficient)				
The student has a tendency to show physical symptoms or fears associated with personal or school problems during the school day.				
The student shows a high level of energy and is overly talkative during class				
The student is unable to learn and this cannot be explained by intellectual (e.g., lack of intelligence), sensory (e.g., disability), or health factors (e.g., physical illness)				
The student is defiant (e.g., does not follow instructions) and disruptive (e.g., talkative during class) but manages to have an average academic performance				
The student is unable to build or maintain satisfactory interpersonal relationships with peers (e.g., friends) and teachers.				
The student displays inappropriate types of behavior or feelings under normal circumstances. (e.g., laughing excessively or cries)				
The student already has a specific learning				

disability diagnosis (e.g., reading disability)				
The student appears sad but successfully completes homework and assignments				
The student has a history of mental illnesses (e.g., an anxiety disorder) and his academic performance is average				
The student appears depressed and has a general pervasive mood of unhappiness				

**VITA**

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