2013-03-26

# Effects of Teacher Gender on Screening for Social, Emotional, and Behavioral Concerns for a Middle School Population

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# Effects of Teacher Gender on Screening for Social, Emotional, and Behavioral Concerns for a Middle School Population

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A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Educational Specialist

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April 2013

ABSTRACT

Effects of Teacher Gender on Screening for Emotional and Behavioral Concerns for a Middle School Population

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Students with Emotional and Behavioral Disorders (EBD) often experience serious educational difficulties and negative outcomes (Gresham, MacMillan, & Bocian, 1996; Landrum, Tankersley, & Kauffman, 2003; Rock, Fessler, & Church, 1997). School-wide screening to identify students with social, emotional, and behavioral concerns (SEB) allows school personnel to identify at-risk students and connect them with needed resources. Some students appear to be identified disproportionally, with male students identified as at-risk more frequently then female students (Young, Sabbah, Young, Reiser, & Richardson, 2009). There are many possible factors that could contribute to this disproportionate identification. Since screening for EBD is often based on teacher nominations, teacher gender is one factor that needs to be considered. This study examined the influence of teacher gender on a screening process to identify students at risk for SEB in a secondary school. Nominations of at risk students from 40 middle school teachers were evaluated to determine if teacher gender influenced the proportion of male and female students identified as at risk for SEB. Teacher gender did not significantly influence which gender of students were nominated. Future research may investigate other factors that may contribute to disproportionate identification.

Keywords: Emotional and Behavioral Disorder, Social Emotional and Behavioral concerns, Screening, Secondary School, Gender

# ACKNOWLEDGEMENTS

I am indebted to many individuals who have made the completion of this project not only possible, but enjoyable. I cannot express enough gratitude to my mentor and thesis chair, Dr. Ellie Young, for her countless hours of support, editing, and encouraging me to fully develop ideas and skills. From Dr. Young I have learned to strive for academic excellence without losing the human touch.

I am grateful for each member of our research team. Thanks to Stephanie Davis Deverich for showing me how to think critically and research thoroughly. She has been my friend and mini-mentor throughout graduate school. Thanks to Matthew Wilcox for helping me to understand statistics and being a support to everyone on our team. To the other members of our team, it was a pleasure to work with, travel with, and learn from each of you.

The faculty at Brigham Young University have gone above and beyond the call of duty to support and guide me through this program. Thanks to Paul Caldarella, Mike Richardson, and Lane Fischer, who each devoted a significant amount of time to helping me develop and complete this research.

I want to thank each member of my family. They have supported me, not only in my academic pursuits, but in life. Thanks to Dad for always providing an example of hard work and living for others. Thanks to Mom for creating a home where each of us felt safe and supported.

Finally, I am grateful for my friends, classmates, and roommates who have always been willing to help me in time of need. Your examples of love and service have not gone unnoticed. Thank you!

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# DESCRIPTION OF THESIS STRUCTURE

This thesis, *Effects of Teacher Gender on Screening for Emotional and Behavioral Disorders For Middle School Populations,* is presented in a dual or hybrid format. In this hybrid format, both traditional and journal publication formatting requirements are met.

The preliminary pages of the thesis adhere to university requirements for thesis formatting and submission. The first full section of the thesis is presented in the new journal-ready format and conforms to the style requirements for future publication in education journals. The full literature review and teacher nomination forms are included in Appendices A and B. Two reference lists are included in the thesis format. The first includes only the references found in the first journal-ready article. The second reference list includes all citations from the full literature review found in Appendix A.

## Background

Emotional and Behavioral Disorders (EBD) can seriously impede a student's educational progress and lead to notable negative outcomes (Gresham et al., 1996; Landrum, Tankersley, & Kauffman, 2003; Rock, Fessler, & Church, 1997). Between 15% and 20% of students are estimated to experience a variety of forms of behavioral and emotional concerns, such as depression and anxiety (Huberty, 2008). Students with EBD face both short-term and long-term problems (Gresham et al., 1996). Data collected in 2006 showed that each year 60% of students in public schools who have a classification of EBD do not graduate (U.S. Department of Education, 2010). In addition to not graduating, many of these students have difficulties later in life in areas such as relationships, careers, mental health, and academic achievements. They are more likely to experience poor job stability and use community resources such as welfare, mental health, substance abuse, public health, and criminal justice services (Landrum et al., 2003). Rock et al. (1997) reported that children who have been identified with EBD face the least positive outcomes (e.g., academic, relational, employment) of any group of students with disabilities.

To avoid these negative outcomes, students who are at risk for EBD need to be identified in a timely manner and in a way that has evidence of validity so that they can receive appropriate interventions. For the purpose of this article it is important to note that EBD refers specifically to a disability category as specified in special education law. Social, emotional, and behavioral concerns (SEB) is a term that has been used more recently to describe the social, emotional, and behavioral problems students' experience, without referring to a specific group of students who have been identified as having an EBD. This distinction is important because EBD is a very small group of students (less than 1%; U. S. Department of Education, 2012); in contrast

approximately 20% of students have emotional and behavioral concerns. This study focused on the 20% who have a variety of concerns by are not identified as EBD. Therefore, for the purpose of this study we will discuss screening for SEB concerns.

**Screening for Social, Emotional, and Behavioral Concerns**

Screening is a practice that allows schools to identify students who are exhibiting risk factors associated with academic and emotional difficulties and connect these students with interventions that may prevent the development of a full-blown disorder (Young, Caldarella, Richardson, & Young, 2011). There are many benefits to screening for social, emotional, and behavioral concerns (SEB). Screeners are an effective and efficient method for early identification of at-risk students. Early identification of these students is critical since they will benefit more from interventions received before a disorder has fully developed and maladaptive behaviors become fixed (Lane, Robertson, Kalberg, Lambert, Cmobori, &, Bruhn, 2010). When SEB concerns have been addressed in a timely manner, research has shown that these student are likely to experience academic success and reduce strain on teachers (Allen-DeBoer, Malmgre, & Glass, 2006; Cook, Gresham, Kern, Barreras, Thronton, & Crews, 2008; Regan, Mastropieri, & Scruggs, 2005). Screening is also one way that schools can efficiently comply with federal regulations to find and appropriately educate children with disabilities. Under the Individuals with Disabilities Education Improvement Act (IDEIA), schools are responsible to provide a free and appropriate education to all students. In order to accomplish this goal, schools can identify those students who are at risk for SEB concerns through screening and provide appropriate services (Jacobs, 2010).

**Effective screening.** Identification of students who are at risk for SEB problems can effectively be done through the use of universal, school-wide screening. The goal of universal

screening is to survey an entire population, such as a junior high school or an elementary school, and identify students who are at risk for various problems. Screening should include a relatively simple and inexpensive process that can be administered rapidly. Using screening measures that have evidence of validity, reliability, and strong psychometric properties to screen for SEB within schools is necessary to ensure that these students receive needed interventions (McConaughy & Ritter, 2008).

Effective screening systems are both universal (meaning the entire student body is screened) and gated (Lane et al., 2010). Using gates in a screening process means that in the first gate or level a large population is screened with a less specific or detailed measure. Students identified as at-risk are then screened more thoroughly in consecutive gates. Each additional gate collects more specific information. In this way, a broad net is cast in the first gate or wave of screening, to ensure that all students are considered, and then more detailed, time intensive assessment can be made of students identified as students move through the screening process (Lane et al., 2010).

**Disproportionate Identification of At-risk Students**

Considering the many benefits of identifying and providing interventions for students with SEB problems, efforts should be made to ensure that screeners are accurately and proportionally identifying all students who are at risk. Some evidence suggests that males with SEB concerns are being disproportionally identified. A greater proportion of male students than female students currently receive special education services (Donovan & Cross, 2002; Lloyd, 1991; Wagner, Kutash, Duchnowski, Epstei, & Sumi, 2005). In one study 69% of referrals to Special Education were male (Lloyd, 1991). In another study examining the students teachers identified as at risk for SEB, the proportion of male to female students identified was 3:1

(Young, Sabbah, Young, Reiser, & Richardson, 2009). It is not known if this disproportionate representation is due to male students having a higher incidence of SEB concerns or to possible gender bias in the screening process.

Disproportionate representation of students in special education programs is a major concern for schools. Under IDEIA states are required to monitor their local education agencies (LEA) and examine disproportionate representation of racial and ethnic groups in special education and related services, to see if this representation is the result of inappropriate identification (U. S. Department of Education, 2007). Though gender does not specifically fall under the category of racial or ethnic groups, examining a range of categories that might contribute to disproportionality is important to ensure that all students, both male and female, are being accurately identified and then receiving needed services.

While the specific causes of this disproportionate representation are not yet known, several possible explanations have been suggested for why male students are identified as at-risk more frequently than female students (Young et al., 2009). Some authors have noted that screening instruments may not be sufficiently sensitive to the internalizing expressions of SEB commonly seen in female students (Rice, Merves, & Srsic, 2008; Young et al., 2009). Male students may be identified more frequently because teachers and administrators who complete screening nomination forms are more likely to notice disruptive, externalizing behaviors, which tend to be more typical of males than the inward-directed, internalizing behaviors more typical of females (Kokkinos, Panayiotou, & Davazoglou, 2004; Lane, Parks, Kalberg, & Carter, 2007). While these explanations seem viable, they may not account for all of the disproportionate representation, since male students seem to be identified more frequently for both internalizing and externalizing behaviors. In a study examining student gender in a screening process, Young

et al. (2009) found that teachers nominated boys as being at risk for both internalizing and externalizing behaviors more frequently than girls at a ratio of 3:1. If boys are being nominated more frequently as at risk for both internalizing and externalizing behaviors, several factors may be influencing the nomination process: One is that teacher gender may influence the screening and identification process.

**Impact of Teacher Gender on At-risk Student Identification**

Teacher gender is one variable that may influence which students are identified as at risk for EBD, but this variable has not been carefully examined in the research literature. Several factors suggest that teacher gender may influence identification. Hibel, Farkas, and Morgan (2010) noted that disproportionate representation of students in special education is more likely to occur with those disabilities that rely on teacher's judgment for identification (such as Specific Learning Disorders and EBD). Most referrals to special education services are made by teachers (Lloyd, 1991) and the majority of teachers are female (76%; National Center for Educational Statistics, 2010). Studies indicate that the majority of referrals to special education come from female teachers (Green, Shriberg, & Farber, 2008; McIntyre, 1988). It is therefore important to investigate how male and female teachers differ in their perceptions of students and in their tendency to refer, since this may influence which students are identified as at-risk for SEB.

Teacher gender may influence a teacher's perception of students' problem behavior and therefore influence which students they identify as at-risk. One study showed that teachers rate certain problem behaviors as more serious when displayed by students of the opposite gender, but noted that this interaction of teacher gender and perception of students' problem behavior needs to be more closely examined (Caldarella, Shatzer, Richardson, Shen, Zhang, & Zhang, 2009). Green and colleagues (2008) indicated that female teachers perceive problem behaviors as

more severe than male teachers. In this study examining how teacher gender and student gender relate to teacher assessment of the severity of a situation and likelihood of seeking assistance, female teachers perceived identical problematic behaviors as more severe than male teachers. They were also more likely to seek assistance in working with these children. Male teachers seemed more likely to downplay problematic behavior and try to solve problems on their own (Green et al., 2008). If schools generally have more female teachers than male teachers (NCES, 2010), and female teachers are more likely to seek assistance and make referrals (Green et al., 2008; McIntyre, 1988), teacher gender may influence which students are being identified in a screening process.

**Statement of Purpose**

The goal of this study was to determine if the teacher gender is related to the gender of students that teachers nominate as being at risk for SEB as part of a universal screening process. Based on research concerning teacher perceptions of students' at-risk behavior, we hypothesized that female teachers would be more likely than male teachers to identify male students as at risk for developing SEB. The results of this study will inform educators, administrators, and the developers of screeners on factors that influence screening to ensure that screening for SEB is done accurately.

# Method

## Preliminary Research

The current research study examined data collected during winter of the 2011-2012 school year. This study is part of a larger research agenda which has the primary goal of validating the use of a screening measure designed to identify students who are at risk for SEB concerns in a junior high or middle school setting. Since this screening system relies partially on teacher nominations, there is a potential for teacher factors to influence the nomination process. The current study examined the impact of teacher gender on this process. Specifically it measured the influence of teacher gender on which students (male or female) are identified as being at risk for SEB concerns.

## Participants

Participants included 42 middle school teachers (30 female, 12 male) from one school in the mountain west area who chose to participate in a larger study. Of these 42 teachers, 88% identified themselves as Caucasian, 5% as Hispanic, 2% as Native American Indian, and 2% as Asian. The school has a total of 51 full time teachers and all teachers within the school were invited to participate. As an incentive for participation, those who completed the screener were given a $50 Visa gift card.

The middle school where this study was conducted has a total of 1,291 students. Approximately 10% of the students receive free or reduced lunch, and 92% of the students identify themselves as Caucasian, 3% as Hispanic, 2% as Asian or Pacific Islander, and 1% as Black non-Hispanic.

**Measures**

The primary measure used for the purpose of this study was a teacher nomination form (TNF) that was patterned after the nomination form in the Systematic Screening for Behavioral Disorders (SSBD, Walker & Severson, 1992) but adapted to be developmentally appropriate for a junior high or middle school population. The process for adapting the TNF consisted of identifying descriptors for both internalizing and externalizing behaviors that were developmentally appropriate for early adolescent students. In a previous study, approximately 97 junior high school teachers were surveyed and identified terms that were most likely to describe students at risk for emotional and behavioral problems in both the internalizing and externalizing categories. The most commonly agreed upon descriptors were included in the TNF. A copy of this form can be found in Appendix B.

As stated earlier, the TNF is based on the SSBD, which is considered a "gold standard" among EBD screeners (Lane et al., 2007). The first gate of the SSBD requires a relatively short amount of time to complete, and therefore is practical for use in screening for early adolescent or junior high school populations as a universal screener (Caldarella et al., 2008). In the first gate teachers are given a list of definitions and examples of externalizing and internalizing behavior. They are then asked to list five students in their classes who display the prescribed behaviors in each category (five students with externalizing behaviors and five students with internalizing behaviors). Once these lists are compiled, they are asked to rank order all ten of the students according to the extent that the students exemplify the behavior. Students identified as at-risk for SEB through this first gate screening process are given more in-depth screening in the second stage or gate of the SSBD. For the purpose of this study, only data collected in the first gate of the screening process was considered.

**Procedures**

Teachers who agreed to participate were asked to complete the TNF. While considering all of their current students, they read descriptions of internalizing and externalizing behaviors and then identified five students who demonstrate internalizing behaviors and five who demonstrate externalizing behaviors. Once these lists were compiled, they were asked to rank order the ten students according to the extent that the students exemplified the behavior. They were then asked to identify the gender of each student listed. Teachers also completed a brief form asking for their demographic information, including their own gender.

Nominations from the screener were then analyzed to determine if the gender of students identified was independent from the gender of teacher completing the TNF. This study aimed to answer the question: Given differences in actual opportunities to nominate male or female students, is teacher gender a factor that significantly influences what gender of student is nominated?

**Data Analysis**

A chi-square test of independence was calculated comparing the frequency of male and female student nominations by male and female teachers. Expected values were weighted according to opportunity for male and female teachers to rate male and female students. Specifically, expected values were obtained by multiplying the total number of nominations by male and female teachers by the average proportion of male and female students enrolled in the classes of male and female teachers respectively. A z-test of proportions was calculated to further investigate factors that may contribute to significant findings in the chi-square test of independence.

## Results

Using a teacher nomination form (TNF) as part of screening for social, emotional and behavioral concerns, a chi-square test of independence was calculated comparing the frequency of male and female student nominations by male and female teachers. To further investigate the underlying factors that led to a significant finding with the chi-square test of independence, a z-test of proportions was also calculated. Students were identified as either exhibiting internalizing or externalizing behaviors. To understand if teacher gender impacted which gender of students were nominated specifically within the internalizing and externalizing categories an additional chi-square test of independence and z-test of proportions were calculated.

### Analysis of Impact of Teacher Gender on Screening

**Initial Chi-Square Test of Independence.** A chi-square test of independence was calculated comparing the frequency of male and female student nominations by male and female teachers. As stated above, expected values of student nominations were weighted according to opportunity for male and female teachers to rate male and female students. Specifically, expected values were obtained by multiplying the total number of nominations by male and female teachers by the average proportion of male and female students enrolled in the classes of male and female teachers, respectively. The relationship between these variables was significant, ($\chi^2(1) = 60.627$, $p > .001$). Though male students were nominated more frequently than female students by both male and female teachers, female teachers nominated male students significantly more often than did male teachers. Male students were more likely to be nominated by female teachers (71%) than by male teachers (29%).

A chi-square residual was completed to determine which cells contributed most to the significance of the chi-square statistic. In this test any residual that is higher than the critical

value of 1.96 or below the value of -1.96 is considered to have significantly added to the total chi-square statistic. Table 1 shows that each residual significantly added to the chi-square statistic. Within this analysis a negative residual would indicate that these groups of students were nominated less frequently than expected and a positive residual would indicate that these groups of students were nominated more frequently than expected. From these residuals we noticed that female teachers appeared to nominate male students proportionally more than male teachers nominate male students. To understand the significance of this difference further analysis was conducted.

Table 1

*Frequency of Male and Female Student Nominations by Male and Female Teachers*

| | Male Students | | | | Female Students | | | |
|---|---|---|---|---|---|---|---|---|
| Teacher Gender | *Exp* | *Obs* | $\chi^2$ | *Residual* | *Exp* | *Obs* | $\chi^2$ | *Residual* |
| Female | 153.17 | 206 | 18.22 | 4.27 | 135.83 | 83 | 20.55 | -4.53 |
| Male | 59.50 | 85 | 10.93 | 3.31 | 59.50 | 34 | 10.93 | -3.31 |

**One-sample z-test of proportions.** To further investigate if there was a statistically significant difference between female teacher nominations and male teacher nominations, a one-sample z-test of proportions was calculated. Because the number of female teachers who participated in the study is nearly triple the number of male teachers who participated, the hypothesized proportions were calculated by dividing the number of female teachers by the total number of teachers. The same method was used for calculating expected proportions for the male teachers. Thus, it was expected that 71% of students would be nominated by female teachers and 29% by male teachers.

The observed proportions were calculated by dividing the number of students nominated by a teacher for that cell, and dividing it by the total number nominations made in that row. For example, the observed proportions for male students by female teachers was calculated by dividing the number of nominations for that cell (206) by the total nominations for male students (291), producing a proportion of .7079. This observed proportion is very close to the expected proportion of .714. The z-test of proportions indicated these proportions were statistically different. For example, when the z-test was used to test the difference between expected and observed results for the cell mentioned above the result was not found to be significant, with z = 0.24.

For the z-test of proportions to show statistical significance the z value would need to exceed 1.96. As shown in Table 2, none of the cells showed a significant difference between the expected and observed proportions. Therefore, the results do not support a statistically significant difference between the way that male and female teachers nominated students.

Table 2

*One Sample Z-Test of Proportions (Differences in Male and Female Teacher Nominations)*

| | Male Students | | | | Female Students | | | |
|---|---|---|---|---|---|---|---|---|
| Teacher Gender | *Exp.* | *Obs.* | Z | *p* | *Exp.* | *Obs.* | Z | *p* |
| Female | 207.86 | 206 | 0.154 | .877 | 83.57 | 83 | .086 | .931 |
| Male | 83.14 | 85 | 0.113 | .900 | 33.42 | 34 | .058 | .953 |

**Explanation of differences.** The chi-square test of independence showed a significant difference between female and male teacher nominations while the one-sample z-test of proportions did not. For the chi-square test of independence, the researcher compared the actual observed count with a hypothesized value. The hypothesized values used were the percentage of

male and female students averaged across all classes. Teachers were asked to provide the total number of male and female students in their classes. The average proportion of students taught by female teachers was 53% male and 47% female. The average proportion of students taught by male teachers was 50% male and 50% female. Thus, the results of the chi-square test showed that both male and female teachers nominated male students significantly higher than the hypothesized 50%, and females significantly lower than the hypothesized 50%. This resulted in a significant chi-squared statistic. The process of estimating expected proportions using the one-sample z-test of proportions used did not look at student percentages but rather at teacher proportions, which more closely approximated the actual data and resulted in an insignificant z statistic. As an additional attempt to address the issue of uneven sample size of teacher respondents, several chi-square statistics were calculated using random samplings of 12 female teacher nominations compared to the 12 male teacher nominations. All of these statistics appeared to be significant—similar to the analysis involving all of the female teacher nominations. This further supports the need for additional analysis using a z-test of proportions.

While examining proportions has yielded a statistically insignificant result, analyzing the proportions has yielded *practically* significant findings. As noted earlier, observed proportions were calculated by dividing the number of nominations in each cell by the total number of nominations for that row. This resulted in an observed proportions for each gender of student by teacher gender. However, interesting information results from calculating observed proportions by dividing the number of nominations in each cell by the total number of nominations for that column. Notice that out of 289 total nominations made by female teachers, 71.28 % were male. Out of 119 total nominations by male teachers, 71.43% were male students. A two sample z test was performed in order to determine if these two proportions were statistically different,

resulting in an insignificant result, z = .0256 p<.001. This means that within rounding error, both female and male teachers nominated male students approximately 71% of the time; subsequently, both female and male teachers nominated female students 29% of the time. This has practical importance in two ways: first, it is further evidence that female and male teachers nominated female and male student similarly; second, it provides more accurate expected values for female and male student nomination for further research.

**Analysis of Identification within Internalizing and Externalizing Categories**

When completing the TNF, teachers were asked to identify five students who exhibited internalizing behaviors and five who exhibited externalizing behaviors. To understand if teacher nominations were influenced by teacher's gender and whether or not the teacher was nominating students in the internalizing versus externalizing categories, a chi-square test of independence was calculated, followed by a one-sample z-test of proportions. These analyses were selected and patterned after the analysis used above in order to maintain consistency.

**Initial chi-square test of independence for internalizing and externalizing categories.** First, a chi-square test of independence was calculated to compare the frequency of male verses female student nominations by male and female teachers first in the internalizing and then externalizing categories. For female teachers, the hypothesized proportions were calculated by dividing the number of female teachers by the total number of teachers. The same method was used for calculating expected proportions for the male teachers. No significant relationship was found ($\chi^2(3) = 1.738$, p=.629). Internalizing and externalizing nominations appeared to be independent of teacher gender. Table 3 shows the expected and observed nominations of male and female teacher nominations and the chi-square statistic for each category. None of these cells has a significant chi-square value.

Table 3

*Frequency of Male and Female Student Nominations by Male and Female Teachers in the Internalizing and Externalizing Categories*

| | Female Teachers | | | Male Teachers | | |
|---|---|---|---|---|---|---|
| Student Categories | *Exp* | *Obs* | $X^2$ | *Exp* | *Obs* | $X^2$ |
| Male Externalizing | 128.92 | 131 | 0.03 | 53.08 | 51 | 0.08 |
| Male Internalizing | 77.21 | 75 | 0.06 | 31.79 | 34 | 0.15 |
| Female Externalizing | 16.29 | 14 | 0.32 | 6.71 | 9 | 0.78 |
| Female Internalizing | 66.58 | 69 | 0.09 | 27.42 | 25 | 0.21 |

**Two-sample z-test of proportions for internalizing and externalizing categories.** To further investigate if the difference between female teacher nominations and male teacher nominations in the internalizing and externalizing categories, a two sample z-test of proportions was calculated. The values calculated in the two sample z-test are provided in Table 4. In order to calculate a two sample z-test of proportions the proportion of nomination type for each cell was calculated. For example, in the male student externalizing cell, female teachers nominated 131 male students. The proportion was calculated by dividing the number of nominated male externalizing students (131) by the total number of nominations made by female teachers (289). Similarly, male teachers nominated 51 male externalizing students, which number was divided by the total number of nominations made by male teachers (119). Once proportions were calculated, the two sample z-test of proportions was calculated to determine if the two proportions were statistically different. For the z-test of proportions to show statistical significance the z value would need to exceed 1.96. None of the cells showed a significant difference between the expected and observed proportions. Therefore, there is no evidence to support a statistical significance between the way that male and female teachers nominate

students with internalizing and externalizing concerns. This lack of statistical significance when examining the internalizing and externalizing nominations further supports the results of the original data analysis using the z-test of proportions.

Table 4

*Two Sample Z-Test of Proportions (Differences in Male and Female Teacher Nominations)*

| | Teachers | | | |
|---|---|---|---|---|
| Student Categories | Female | Male | *Z* | *p* |
| Male Externalizing | 131 | 51 | | |
| Proportions | .453 | .429 | .298 | .765 |
| Male Internalizing | 75 | 34 | | |
| Proportions | .260 | .286 | .245 | .806 |
| Female Externalizing | 14 | 9 | | |
| Proportions | .048 | .056 | .280 | .780 |
| Female Internalizing | 69 | 25 | | |
| Proportions | .239 | .210 | .293 | .770 |
| Total nominations | 289 | 119 | | |

## Discussion

This research explored the possible influence of teacher gender on the identification of students at risk for social, emotional, and behavioral concerns. The most notable finding was that male students are nominated more frequently than female students in both the internalizing and externalizing categories, regardless of teacher gender. This larger number of male student nominations is consistent with previous findings (Young et al., 2009). From the current sample 71% of students nominated were male and 29% were female. While this finding is in keeping with previous research (Donovan et al., 2002; Lloyd, 1991; Wagner et al., 2005; Young et al., 2009), the question is again raised of why male students are nominated more frequently than female students.

### The Influence of Teacher Gender

As previously discussed, several possible explanations have been suggested for this disproportionate identification of male and female students. The explanation investigated in this study was whether teacher gender influenced the nominations. We specifically predicted that male students would be nominated more frequently by female teachers. If female teachers are more likely to nominate male students, as hypothesized, and more female than male teachers are generally employed in junior high schools (76% of public school teachers are female; NCES, 2010), this could account for the greater number of male students being selected through the nomination process. In addition to this, Hibel et al. (2010) explained that disproportionate representation in special education is more likely to occur with those disabilities that rely on teacher's judgment for identification. EBD is one disability that relies heavily on teacher's judgment for identification and therefore teacher factors (such as gender) may play a significant role in the identification of at-risk students.

Based on the results of this study, teacher gender does not appear to be a factor that significantly influences which gender of student is identified as at risk for emotional and behavioral concerns. When considering students who may be at risk, male and female teachers appear to nominate male and female students similarly; male students were under nominated, 71% of the time, female students 29% of the time. Though previous research seemed to indicate that teachers perceptions of students problem behavior and subsequent identification may vary by teacher gender (Caldarella et al., 2009; Kokkinos et al., 2004), there was a lack of studies showing a direct correlation between the gender of teacher and how teachers perceived emotional and behavioral concerns in male and female students. While this finding is somewhat unexpected, it adds support to research that has suggested using teacher nominations in schools as one part of a process for identifying at risk students (Lane et al., 2007; Walker & Severson, 1992), since teacher gender is not expected to influence nominations.

Teacher gender also does not appear to influence whether internalizing or externalizing students are nominated for being at-risk. SEB is a broad category that encompasses a large range of problem behaviors—specifically internalizing and externalizing problems. Since certain problem behaviors are sometimes reported as more common for a specific gender (Hoffman, Pawlishta, & White, 2004), such as female students displaying more internalizing behaviors and male students displaying more externalizing behaviors, societal views and individual teacher perceptions may influence the identification of students specifically within these subsets of behavior. The findings of this study did not indicate that teacher gender effected the nominations, at least not on the internalizing and externalizing levels.

**Alternative Explanations for Disproportionate Identification**

If teacher gender is not significantly impacting the nomination process, other explanations must be investigated to understand the disproportionate representation of male students as being at risk for EBD. Another explanation, previously discussed, is that male students simply have more emotional and behavioral problems than female students. Since male and female teachers seem to be nominating at-risk students similarly, this may support the idea that male students are actually more at-risk and need more support. The exact prevalence rates of emotional and behavioral problems are difficult to identify, possibly due to the fact that EBD is such a broad category, covering a variety of problem behaviors. The prevalence of psychopathology will also vary according to the age and gender of the student (Friedrich et al., 2010). While the proportion of male students classified with EBD is greater than the number for female students classified (80% male, 20% female; Donovan & Cross, 2002; Wagner et. al, 2005), several studies indicate that female students should be identified more frequently with internalizing concerns (Bailey et al., 2007; Friedrich et al., 2010; Huberty, 2008). Bailey et al., (2007) found that females self-reported depressive (internalizing) symptoms 3-4 times more often than boys. More research is needed to find accurate prevalence rates of EBD in a middle school population.

Another explanation is that female students are not identified as frequently as male students because the screening process is not sufficiently sensitive to the internalizing expressions of EBD commonly seen in female students (Reynolds, 1990; Rice et al., 2008; Young et al., 2009). If male and female teachers are nominating students similarly, teachers may not be aware of the unique needs and expressions of female students with EBD. While it is possible that the actual prevalence rates of psychopathology are similar for males and females

during the teenage years (Friedrich et al., 2010), expressions of these disorders vary by gender. Girls are more likely to report internalizing and negative self-esteem, whereas boys are more likely to report externalizing and school problems (Bailey, et al., 2007). School personnel (including both male and female teachers) may be less tolerant of the symptomology specifically expressed by male students, and therefore identify these students more frequently with EBD. They also may see the expressions of EBD from male students as needing more urgent attention than those expressed by female students because of the disruptive nature of externalizing behaviors.

**Limitations**

One limitation of this study is the homogeneity of the teachers that participated. Teachers were asked to nominate students from one middle school in a relatively small geographic location. Future studies could involve multiple schools, spread across several geographical locations, and with more diverse student and teacher participants. This study could also be repeated in high school settings.

Another limitation of this study is the small sample size. Future studies could involve either multiple schools or schools with more students.

One possible limitation of this study is a lack of a precisely matched or previously established statistical analysis for investigating the research question. The chi-square analysis required the researchers to calculate the number of students that were expected to be nominated by each group of teachers. These expected nominations could be determined a number of ways and have varying effects on the significance of the results. Though there did not appear to be a precisely matched statistical procedure to fit the research question, the researchers went to great lengths to appropriately adapt the statistical procedures to answer the research question.

Lack of well-established reliability for the screening instrument (TNF) used, could also be considered a limitation. While the validity of this instrument has already been addressed (Caldarella et al., 2008), further development of the instrument and test-retest reliability studies are needed to give added support for the use of this instrument.

A final limitation of this study was a disproportionate sample. More female teachers than male teachers were involved in the nomination process. Though a larger sample size would be preferable, none of the sample groups were too small to perform the statistical analysis and therefore the results of this study should be considered valid. Future studies could involve larger sample sizes with more even groups of male and female teachers.

**Implications for Future Research**

Future studies will need to investigate the true prevalence rates of EBD to understand if students are being identified proportionally. More in-depth evaluations of entire student populations using standardized assessment instruments could provide these prevalence rates. Standardized assessment instruments would provide a more complete picture of a students' mental health than would a simple screening instrument. These evaluations would need to be administered to all age groups (at elementary, middle, Jr., and high schools) since rates of psychopathology vary by age (Friedrich et al., 2010). Once more accurate prevalence rates are established it will be possible to determine if screening practices are proportionally identifying students.

Female students may not be identified proportionally because individual items on the screening measure may not capture distinctly female expressions of internalizing or externalizing disorders. Talbott (1997) described how male and female students externalizing or anti-social behaviors appear very similar to teachers while the students are in elementary school. Once these

students reach 7th grade externalizing behaviors in female students change—with a decrease in physical aggression and increase in social aggression. Conducting an items analysis to ensure that questions on a screener are adequately capturing female students would be useful.

To identify other teacher related factors that may influence screening, future studies could investigate the impact of teacher ethnicity or years of teaching experience on nominations of students who are at-risk. Though Lloyd (1991), noted that many studies have focused on demographic factors related to student referrals to special education, these studies were not completed recently, and have not focused on the relationship of teacher demographics with the gender of student being identified.

**Implications for Future Practice**

Based on the results of this study, there are several practical implications for screening in secondary schools. Educators who screen for SEB concerns should be aware that male students are often nominated more frequently than female students. School personnel should consider using multiple methods for identifying students who are at risk. One option is to have students as well as teachers complete screening measures, as female students are more likely to self-identify as at risk for internalizing concerns (Bailey et al., 2007). A second option would be to have teachers nominate an equal number of male and female students during the first tiers of the screening process. This practice may encourage teachers to more carefully consider female students who are at-risk; however, it may force teachers to identify students who show few at-risk behaviors. A third option would be for teachers to be involved in meaningful professional development that focuses on internalizing and externalizing behaviors and show how these behaviors may be demonstrated differently in male and female students. For example, male and female students with depression may have similar scores on the Beck Depression Inventory, yet

display different behaviors (Bailey, et al., 2007; Bennett, Ambrosini, Kudes, Metz, & Rabonovich, 2005). In one study, boys were more likely to experience morning fatigue, depressed morning mood, and anhedonia, while girls were more likely to express body image dissatisfaction, guilt, self-blame, self-disappointment, feelings of failure, concentration problems, difficulty working, sleep problems, overall fatigue, and health worries (Bennett et al., 2005). Knowing these differences may influence the way in which teachers nominate students.

Since it is difficult to identify all students who are at-risk for emotional and behavioral concerns, schools should consider implementing school wide interventions that address emotional and behavioral concerns, so that all students receive supportive services. Schools should also ensure that the prevention and early intervention services meet the needs of both male and female students. Positive behavior support has been shown to improve the school climate and emotional well-being of students (Sugai, Horner, Dunlap, Hieneman, Lewis, Nelson, & Ruef, 2000; Walker, Horner, Sugai, Bullis, Sprague, Bricker, & Kaufman, 1996) and therefore, may be an effective way to serve all students.

**Conclusion**

This study found that teacher gender did not significantly influence which gender of students teachers identified when completing a TNF to identify students who were at risk for EBD. These findings give further support to the practice of using teachers to identify at-risk students as part of a screening process. Further research is needed to understand the unique expressions and identification of male and female students who are struggling with an emotional or behavioral concern. Considering the difficulties that students with EBD experience (Gresham et al., 1996; Landrum et al., 2003; Rock, et al., 1997), and the great benefits of intervening early

with this population (Allen-DeBoer et al., 2006; Cook et al., 2008; Regan et al., 2005), screening should be considered an important priority in helping students succeed in schools.

## References

Allen-DeBoer, R. A., Malmgre, K. W., & Glass, M. (2006). Reading instruction for youth with emotional and behavioral disorders in a juvenile correctional facility. *Behavioral Disorders, 32*(1), 18-27

Bailey, M. K., Zauszniewski, J. A., Heinzer, M. M., & Hemstrom-Krainess, A. (2007). Patterns of depressive symptoms in children. *Journal of Child & Adolescent Psychiatric Nursing, 20*(2), 86-95. doi:10.1111/j.1744-6171.2007.00090.x

Bennett, D. S., Ambrosini, P. J., Kudes, D., Metz, C., & Rabinovich, H. (2005). Gender differences in adolescent depression: Do symptoms differ for boys and girls? *Journal of Affective Disorders, 89*(1-3), 35-44. doi: 10.1016/j.jad.2005.05.020

Caldarella, P., Young, E. L., Richardson, M. J., Young, B. J., & Young, K. R. (2008). Validation of the Systematic Screening for Behavior Disorders in middle and junior high school. *Journal of Emotional and Behavioral Disorders, 16*(2), 105-117.

Caldarella, P., Shatzer, R. H., Richardson, M. J., Shen, J., Zhang, N., & Zhang, C. (2009). The impact of gender on chinese elementary school teachers' perceptions of student behavior problems. *New Horizons in Education, 57*(2), 17-31.

Code of Federal Regulations. (2008). *Assistance to states for the education of children with disabilities* (Title 34, 300.8 (c)(4)(i))Washington, DC: US. Government Printing Office

Cook, C. R., Gresham, F. M., Kern, L., Barreras, R. B., Thornton, S., & Crews, S. D. (2008). Social skills training for secondary students with emotional and/or behavioral disorders: A review and analysis of the meta-analytic literature. *Journal of Emotional and Behavioral Disorders, 16*(3), 131-144. doi:10.1177/1063426608314541

Donovan, M. S., & Cross, C. T. (2002). *Minority students in special and gifted education* National Academies Press. Washington, DC

Einarsson, C., & Granström, K. (2002). Gender-biased interaction in the classroom: The influence of gender and age in the relationship between teacher and pupil. *Scandinavian Journal of Educational Research, 46*(2), 117-127.

Friedrich, A. A., Raffaele Mendez, L., & Mihalas, Stephanie T. (2010). Gender as a factor in school-based mental health service delivery. [Article]. *School Psychology Review, 39*(1), 122-136.

Green, S., Shriberg, D., & Farber, S. L. (2008). What's gender got to do with it? Teachers' perceptions of situation severity and requests for assistance. *Journal of Educational & Psychological Consultation*, 18(4), 346-373. doi:10.1080/10474410802463288

Gresham, F. M., MacMillan, D. L., & Bocian, K. (1996). "Behavioral earthquakes:" Low frequency, salient behavioral events that differentiate students at-risk for behavioral disorders. *Behavioral Disorders, 21*(4), 277-292.

Hibel, J., Farkas, G., & Morgan, P. L. (2010). Who is placed into special education? *Sociology of Education, 83*(4), 312-332.

Hoffman, M. L., Pawlishta, K. K., & White, K. J. (2004). An examination of gender differences in adolescent adjustment: The effect of competence on gender role differences in symptoms of psychopathology. *Sex Roles*, 50(11/12), 795-810.

Huberty, T. J. (2008). Best Practices in School-Based Interventions for Anxiety and Depression. In A. Thomas and J. Grimes (eds.) *Best practices in school psychology V*. Bethesda, MD: National Association of School Psychologists. 92(4), 1473-1486.

Jacobs, S. (2007). *Ethics and Law for School Psychologists*. Hoboken: John Wiley & Sons, Inc.

Kokkinos, C. M., Panayiotou, G., & Davazoglou, A. M. (2004). Perceived seriousness of pupils' undesirable behaviors: The student teachers' perspective. *Educational Psychology, 24*(1), 109-120. doi:10.1080/0144341032000146458

Landrum, T. J., Tankersley, M., & Kauffman, J. M. (2003). What is special about special education for students with emotional and behavioral disorders? *The Journal of Special Education*, *37*,148–156. doi:10.1177/00224669030370030401

Lane, K.L., Parks, R. J., Kalberg, J. R., & Carter, E. W. (2007). Systematic screening at the middle school level: Score reliability and validity of the student risk screening scale. *Journal of Emotional and Behavioral Disorders, 15,* 4, 209-222. doi:10.1177/10634266070150040301

Lane, K. L., Robertson Kalberg, J., Lambert, E. W., Crnobori, M., & Bruhn, A. L. (2010). A comparison of systematic screening tools for emotional and behavioral disorders: A replication. *Journal of Emotional and Behavioral Disorders, 18*(2), 100-112. doi:10.1177/1063426609341069

Lloyd, John. (1991). Why do teachers refer pupils for special education? An analysis of referral records. *Exceptionality, 2*(3), 115-126.

Maunder, R. E. (2010). Pupil and staff perceptions of bullying in secondary schools: Comparing behavioural definitions and their perceived seriousness. *Educational Research, 52*(3), 263-282.

McConaughy, S. H. & Ritter, D. R. (2008). Best practices in multimethod assessment of emotional and behavioral disorders. In A. Thomas & J. Grimes (Eds.) *Best practices in school psychology V* (pp. 697-716). Bethesda, MD: National Association of School Psychologists.

McIntyre, L. L. (1988). Teacher gender: A predictor of special education referral? *Journal of Learning Disabilities, 21*(6), 382-383.

National Center of Educational Statistics, U.S. Department of Education. (2010). *Teacher Attrition and Mobility: Results from the 2008-09 Teacher Follow-up Survey*. Retrieved June 7, 2011, from the National Center for Education Statistics Web site: http://nces.ed.gov/fastfacts/display.asp?id=28

Regan, K. S., Mastropieri, M. A., & Scruggs, T. E. (2005). Promoting expressive writing among students with emotional and behavioral disturbance via dialogue journals. *Behavioral Disorders, 31*(1), 33-50.

Reynolds, W. M. (1990). Introduction to the nature and study of internalizing disorders in children and adolescents. *School Psychology Review, 19*(2), 137.

Rice, E. H., Merves, E., & Srsic, A. (2008). Perceptions of gender differences in the expression of emotional and behavioral disabilities. *Education and Treatment of Children*, *31*(4).

Rock, E. E., Fessler, M. A., & Church, R. P. (1997). The concomitance of learning disabilities and emotional/behavioral disorders: A conceptual model. *Journal of Learning Disabilities, 30*(3), 245-263. doi:10.1177/002221949703000302

Talbott, E. (1997). Reflecting on antisocial girls and the study of their development: Researchers' views. *Exceptionality, 7*(4), 267-272.

Tejeda-Delgado, M. (2009). Teacher efficacy, tolerance, gender, and years of experience and special education referrals. *International Journal of Special Education, 24*(1), 112-119.

U.S. Department of Education, National Center for Education Statistics (2012). *Digest of Education Statistics, 2011* (NCES 2012-001), Table 46. Retrieved from http://nces.ed.gov/fastfacts/display

.asp?id=64

U. S. Department of Education. (2006). *28th Annual report to Congress*. Washington, D.C.. Retrieved from http://www2.ed.gov/about/reports/annual/osep/2006/parts-b-c/index.html

U. S. Department of Education. (2007) *Disproportionality and Overidentification*. Office of Special Education Programs. Washington D.C.: Retrieved from: http://idea.ed.gov/explore/view/p/%2Croot%2Cdynamic%2CTopicalBrief%2C7%2C

Wagner, M., Kutash, K., Duchnowski, A. J., Epstein, M. H., & Sumi, W. C. (2005). The children and youth we serve: A national picture of the characteristics of students with emotional disturbances receiving special education. *Journal of Emotional & Behavioral Disorders, 13*(2), 79-96.

Walker, H. M., & Severson, H. H. (1992). *Systematic Screening for Behavior Disorders (SSBD)*. Longmont, CO: Sopris West.

Young, E. L., Caldarella, P., Richardson, M. J., &Young, K. R. (2011). *Positive Behavior Support in Secondary Schools: A Practical Guide*. New York: Guilford Press.

Young, E. L., Sabbah, H., Young, B. J., Reiser, M. J., & Richardson, M. J. (2009). Gender differences and similarities in a screening process for emotional and behavioral risks in secondary schools. *Journal of Emotional and Behavioral Disorders. 18*, 225-235. doi:10.1177/1063426609338858

## Appendix A: Review of Literature

The difficulties faced by students with Emotional and Behavioral Disorders (EBD) and the benefits of screening for social, emotional, and behavioral (SEB) concerns within schools will be presented at the beginning of this literature review. Next, the key elements of, and difficulties involved with, effective screening for SEB will be addressed. Finally, the disproportionate representation of male students identified with SEB and the possible impact of teacher gender on screening for SEB will be explored.

### Emotional and Behavioral Disorders

Students identified with emotional and behavioral disorders (EBD) often experience serious problems in school settings. Rock and colleagues reported that "students with a diagnosis of EBD have the least positive outcomes of any group of children with disabilities" (1997, p. 247). Between 15% and 20% of students are estimated to experience a variety of forms of EBD, such as depression and anxiety (Huberty, 2008). Wagner et al. (2005) reported that 450,000 students with EBD were receiving special education services. Of these students, approximately 51% drop out of school, which is the highest dropout rate of any disability category. Data from the U.S. Department of Education (2010) showed that as of 2006, each year 60% of students in public schools who have a classification of EBD and are of graduating age do not graduate. Students with EBD are more likely to be suspended from school, miss school, and fail classes (Landrum et al., 2003; Wagner et al., 2005). Students with EBD also have a higher risk for alcohol and drug use, and contact with law enforcement (Starosta, 2010). These students face serious long-term difficulties in relationships, mental health, career, and academic achievement (Gresham et al., 1996). With such negative outcomes, it is imperative that schools work diligently to identify and provide interventions for students at risk for developing an EBD.

**EBD and SEB defined.** In order to effectively identify students who are at risk for EBD, it is first important to understand the nature of EBD and especially how these disorders are perceived in a school setting. EBD is one of the disability categories described in special education law and is sometimes referred to as Serious Emotional Disturbance (SED) or simply Emotional Disturbance (ED). Federal special education law defines Emotional Disturbance as:

> A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a student's educational performance: (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." (Code of Federal Regulations, title 34, Section 300.7(c)(4)(i), 2008)

Traditionally, EBDs have been separated into two categories: internalizing or externalizing behaviors. Internalizing behavior is directed inward. It often is displayed in emotions such as depression, anxiety, somatic problems, and social withdrawal. Internalizing disorders, such as depressive disorder, somatic disorders, anxiety disorders, obsessive compulsive disorder, are characterized by over controlled behavior (Reynolds, 1990). Conversely, externalizing is outwardly expressed. It usually involves behaviors that are seen as excesses, such as disruptive, oppositional, and aggressive behavior (Maschi, Morgen, Bradley, & Hatcher, 2008; Utah State Office of Education, n.d.). While both types of behaviors are damaging to a student's emotional, academic, and social well-being, teachers tend to notice externalizing, or acting-out behaviors more frequently (Lane et al., 2007). Students

demonstrating internalizing or externalizing behaviors can be identified through school-wide screening (Caldarella, Young, Richardson, Young, & Young, 2008; Walker & Severson, 1992).

EBD, SED, and ED refer specifically to a disability category in special education law. Social, emotional, and behavioral concerns (SEB) is a term that has been used more recently in the literature to describe the social, emotional, and behavioral problems students experience, without referring to a specific group of students who have been classified and/or diagnosed as having a specific EBD (such as depression or conduct disorder). EBD represents small group of students (less than 1%; U. S. Department of Education, 2012); whereas, approximately 20% of students have emotional and behavioral concerns. The intention of screening is not to diagnose students with a disorder, but to identify students who are exhibiting risk factors associated with academic or emotional problems and connect these students with needed interventions (Young et al., 2011). Therefore, for the purpose of this study we will discuss screening for SEB concerns.

**Benefits of screening for SEB.** There are many benefits to screening for SEB concerns. Once a student is identified as at risk for SEB, more information can be gathered through appropriately in-depth assessments that can be conducted to determine what intensity of intervention is needed in order facilitate the students' effective school outcomes. Those students who receive early intervention services show significant improvement (Allen-DeBoer et al., 2006; Cook et al., 2008; Regan et al., 2005). These students are more likely to improve academically, which helps them have better self-esteem and career prospects (Hazell, 2007). Not only does serving students with emotional and behavioral problems such as depression, oppositional defiant disorder, and ADHD, help the students (Hazell, 2007), but teachers also tend to benefit when students with behavioral concerns have appropriate support. Lopez, Santiago, Godas, Castro, Villardefrancos, and Ponte (2008) found that teachers working with students who

have behavioral problems tend to experience teacher burnout. If students are supported through intervention services, the strain on the teacher is reduced and they are more likely to support students in meaningful ways (Lopez et al., 2008; Santiago, 2008). Serving students with SEB is also beneficial because it moves them toward a positive trajectory where they will be less likely to need public mental health services in later life (Hazell, 2007). Screening is also helpful because when a school has a screening system in place they can more efficiently comply with federal regulations to identify and serve students with SEB issues. Under IDEA schools are legally responsible for identifying individuals with disabilities and ensure that they are provided with a free and appropriate education (Jacobs, 2010).

**Effective screening for EBD**. Several recommendations have been given for how to effectively screen for EBD (Lane et al., 2010; McConaughy & Ritter, 2008). Identification of students who are at risk can effectively be done through the use of universal school-wide screening. The goal of universal screening is to survey an entire population such as a junior high school or an elementary school and identify students who are at risk for various problems (Lane et al., 2010). Once identified, these students can receive more assessment and evaluation, depending on the extensiveness of their needs. Screening should include a relatively simple and inexpensive measure that can be administered rapidly to a large group of students. Using screening measures that have evidence of validity, reliable scores, and strong psychometric properties to test for SEB risk within schools is necessary to ensure that these students receive needed interventions.

The research literature on screening shows that effective screening systems are both universal (meaning the entire student body is screened) and gated (where students identified in the first gate are then screened more thoroughly in the second gate if more information is needed

in order to determine the type and intensity of services needed) (Lane et al., 2010). Best practices suggest that school psychologists and other educational professionals should use the three-tiered approach when working with students that may be at risk for emotional and behavioral disorders. The first tier or gate might involve using a screener to identify students who are at risk for SEB (McConaughy & Ritter, 2008). Students identified as at-risk are then screened more thoroughly, depending on the information needed to develop responsive interventions, i.e., more information (through evaluation) is typically gathered for students with pressing needs and less information is gathered when students have less intensive needs. Each additional gate collects more specific information. In this way a broad net is cast in the first gate or wave of screening, to ensure that all students are considered, and then more detailed, time intensive assessment can be gathered as needed to best serve students (Lane et al., 2010).

**Gender differences in SEB.** In order to effectively identify students who are at risk for SEB, gender differences in the prevalence rates of and expression of SEB need to be considered. Studies suggest there are gender differences in the prevalence rates of students with SEB. In an overview of research documenting differences in mental health, Friedrich, Mendez, and Mihalas (2010) reported that the prevalence of psychopathology will vary according to the age and gender of the child. When children are younger (preschool aged) boys and girls seem to experience similar struggles with adjustment, but once in elementary school, boys exhibit significantly more adjustment problems than their female counterparts. It is estimated that boys are three to ten times more likely to experience psychopathology during these years. Once students reach adolescence, gender differences in prevalence rates are less disproportionate, but differ by problem and symptomology. While both boys and girls may be struggling with a form of emotional or behavioral problems, the way in which that disorder is expressed will differ by

gender. Girls outnumber boys in internalizing disorders, such as eating disorders, and are more than twice as likely to become depressed or anxious, and are more likely to consider, plan and attempt suicide (Friedrich et al., 2010; Huberty, 2008). Girls self-reported depressive (internalizing) symptoms three to four times more often than boys (Bailey, Zauszniewski, Heinzer, & Hemstrom-Krainess, 2007).

As mentioned above, though the prevalence rates of SEB in adolescent years are similar, there are gender differences in the way in which SEB is expressed by boys and girls. One report showed that though boys and girls in the sample had similar total depressive symptoms scores on the Children's Depressive Inventory; they demonstrated differences in the way these symptoms were expressed. Girls were more likely to report internalizing and negative self-esteem, whereas; boys were more likely to report externalizing and school problems (Bailey, et al., 2007). Similarly, Bennett, Ambrosini, Kudes, Metz, and Rabonovich (2005) found that boys and girls at an outpatient clinic, who scored similarly on the Beck Depression Inventory, differed in their expression of the disorder. Boys were more likely to experience morning fatigue, depressed morning mood, and anhedonia (the inability to experience pleasure from activities previously enjoyed). Girls were more likely to experience body image dissatisfaction, guilt, self-blame, self-disappointment, feelings of failure, concentration problems, difficulty working, sleep problems, overall fatigue, and health worries. These findings suggest that while boys and girls have an equal risk of developing SEB concerns, they will likely express the disorder differently. These differences in expression may influence the screening process since some expressions (especially externalizing expressions more frequently seen in boys) are more noticeable than others (Rice et al., 2008).

**Disproportionate Identification**

Considering the many benefits of identifying and serving students with SEB problems, efforts should be made to ensure that screeners are accurately and proportionally identifying all students who are at risk. Some evidence suggests that male students with SEB concerns are being disproportionally identified. A greater proportion of male students than female students currently receive special education services (Donovan & Cross, 2002; Lloyd, 1991; Wagner et al., 2005). A congressionally mandated committee to investigate the racial and ethnic differences within the special education population, Donovan and Cross (2002) found several gender differences. The most notable difference was that the greatest discrepancy between male and female students in special education was in the Emotional Disturbance category. They found that almost 80% of these students were male (Donovan & Cross, 2002; Wagner et. al, 2005). In one study 69% of referrals to Special Education were male (Lloyd, 1991). In another study examining what students were identified by teachers as at risk for SEB, the proportion of male to female students identified was 3:1 (Young et al., 2009). It is not known if this disproportionate representation is due to male students having a higher incidence of SEB problems or a result of gender bias in the screening process, but addressing this disproportionate representation is very important.

Disproportionate representation of students in special education programs is a major concern for schools, and there is a legal need to address disproportionality. Under IDEIA states are required to monitor their local education agencies (LEA) and examine disproportionate representation of racial and ethnic groups in special education and related services, to see if this representation is the result of inappropriate identification (U. S. Department of Education, 2007). Though gender does not specifically fall under the category of racial or ethnic groups, examining a range of categories that might contribute to disproportionality is important to ensure that all

students, both male and female, are being accurately identified and then receiving needed services.

**Possible explanations for disproportionate representation.** While the specific causes of this disproportionate representation are not yet known, several possible explanations have been suggested for why male students are identified as at-risk more frequently than female students (Young et. al, 2009). Rice et al. (2008) stated that female students are less likely to be identified with SEB by schools because of a number of factors, one of which is difficulty in identification. Some authors have noted that screening instruments may not be sufficiently sensitive to the internalizing expressions of SEB commonly seen in female students (Reynolds, 1990; Rice et al., 2008; Young et al., 2009). Internalizing behaviors such as depressive disorders, obsessive compulsive disorder, anxiety disorders, and suicidal behaviors are characterized by over controlled behaviors, and may not be noticed by others quickly (Reynolds, 1990). Reynolds (1990) noted that internalizing disorders are deceptive and often difficult for those who are not mental health professionals to detect the seriousness of the symptoms. Male students may be identified more frequently because teachers and administrators who complete screening nomination forms are more likely to notice disruptive, externalizing behaviors, which tend to be more typical of males than the inward-directed, internalizing behaviors (Kokkinos et al., 2004; Lane et al., 2007).

While these explanations seem viable, they may not account for all of the disproportionate representation, since male students are not only identified more frequently than female students for externalizing behaviors, but male students are also more likely to be identified due to internalizing behaviors as well. In a study examining student gender in a screening process, more male students were identified with both at-risk internalizing and

externalizing behaviors; Young et al. (2009) found that teachers nominated boys as being at risk for both internalizing and externalizing behaviors more frequently than girls at a ratio of 3:1. Of the 1,065 nominations for students identified as at risk, 77.4% were male. Boys were nominated as being at-risk for internalizing behaviors more frequently than girls at a ratio of 2:1. This incongruence seems to suggest that the screening measures for SEB may not be sufficiently sensitive to gender differences. If boys are being nominated by their teachers more frequently as at risk for both internalizing and externalizing behaviors, other factors may be influencing the nomination process. Another explanation is that teacher gender may influence or bias the identification of students with SEB problems.

**Impact of Teacher Gender on Screening for SEB**

Because referral to special education services depends on teacher perceptions, several teacher factors may influence a teacher's perceptions and subsequent referral decisions. Teacher gender may be one factor that influences teacher perceptions, resulting in disproportionate numbers of males being identified as at risk for SEB. Unlike the identification process for a specific learning disability or intellectual disability, identification of EBD is based more on perceptions of teachers and administrators, rather than on test scores (Hibel et al., 2010). Within special education, eligibility for EBD is determined by a team of qualified professionals, including the students' teacher and the students' parents (Utah State Office of Education, n.d.). Hibel et al. (2010) noted that disproportionate representation of students in special education is more likely to occur with those disabilities that rely on teacher's judgment for identification (such as EBD). These findings indicate that teacher factors play a significant role in the identification of at-risk students. More research is needed to explore the possible impact of

teacher gender on teacher perceptions of emotional and behavioral problems and subsequent referral to special education services.

One finding that may indicate an influence of teacher gender on the identification of at-risk students is that female teachers are more likely than male teachers to refer students for a special education evaluation or related services (Green et al., 2008; McIntyre, 1988). The majority of teachers in public and private schools are generally female. According to the National Center for Educational Statistics, in 2007 and 2008, 76% of public school teachers were female (NCES, 2010). One study reported that when teachers consider referring students with behavioral problems for special education services, female teachers are much more likely to refer than male teachers (McIntyre, 1988). Another study examining how teacher gender and student gender relate to teacher assessment of the severity of a situation and likelihood of seeking assistance, female teachers were more likely to seek assistance in working with these children. Male teachers seemed more likely to downplay problematic behavior and try to solve problems on their own (Green et al., 2008). If schools generally have more female teachers than male teachers (NCES, 2010), and female teachers are more likely to seek assistance and make referrals (Green et al., 2008; McIntyre, 1988), teacher gender may influence which students are being identified in a screening process.

**Influence of teacher gender on perceptions of students with disabilities.** This choice to refer or not refer a student for evaluation may be due to differences in the way that male and female teachers view students' social, emotional, and behavioral problems. Male and female teachers seem to view problem behaviors differently (Caldarella et al., 2009; Green et al., 2008). In a study on Chinese teacher's perceptions of emotional and behavioral problems, Caldarella and colleagues (2009) found differences in the way that male and female teachers perceived

emotional and behavioral problems in students. In this study, female teachers perceived non-attention and overactive behaviors as more serious than male teachers did. Though further study is needed to determine if this finding is generalizable to a western culture; it is important to recognize that the gender of a teacher may influence the perception of student behaviors. Similarly, Green et al. (2008) found differences in the way that teachers perceive behavioral problems. When male and female teachers were assessing the severity of certain problem behaviors female teachers perceived identical problematic behaviors as more severe than male teachers.

Differing perceptions of problem behaviors may influence a teacher's decision of how to help a student. In general, both male and female teachers pay more attention to male students. Male teacher attention to female students increases as female students get older, but female teachers seem to stay consistent in their attention targets, and continue to pay more attention to male students (Einarsson & Granström, 2002). In a study on student and staff perceptions of bullying in secondary schools, Maunder (2010) stated that the biggest predictor of teacher intervention is the teacher's perceptions of the seriousness of a particular behavior. In this study female teachers and students were more likely than male teachers and students to rate both indirect and direct bullying as serious or problematic. If female teachers are perceiving behaviors such as bullying and as more serious (Green et al., 2008; Maunder 2010), that may explain why female teachers are more likely to refer students to special education (Green et al., 2008; McIntyre, 1988). While some studies have found female teachers generally have more positive attitudes toward students with disabilities and are more willing to integrate these children in the classroom than their male counterparts, Tejeda-Delgado (2009) found no significant relationship between teacher gender and teacher tolerance in working with students in special education.

These mixed findings suggest the need to further investigate the influence of teacher gender on teacher decisions in working with students with SEB.

**Effect of teacher gender on Screening for SEB.**

There is a dearth in the literature of studies examining the possible impact of teacher gender on the effects screening for SEB problems. Since teacher perceptions of students with SEB concerns vary by gender (Caldarella et al., 2009; Kokkinos et al., 2004), this variance may contribute to the disproportionate representation of male students in special education programs. Calderella (2009) suggested the need to gather information from both male and female teachers when identifying students who are at-risk for emotional and behavioral disorders. There is a need for research that further explores the impact of teacher gender on screening for SEB.

**Purpose of the Study**

Students identified with EBD face significant challenges in both academics and other areas of life (Gresham et al., 1996; Landrum et al., 2003; Rock et al., 1997). Identifying students who are at risk for SEB and providing these students with intervention services can help address emotional and behavioral issues before they become fixed and nonresponsive to intervention (Lane et al., 2010). Using a screener is a quick and efficient way to identify students who are at risk for these behaviors. The over identification of male students with SEB may be influenced by teacher gender. This may be a result of the predominantly female teacher workforce being more likely to identify male rather than female students as at-risk for SEB. The purpose of this study was to examine the possible impact of teacher gender on a screener for SEB in an early adolescent population. Based on research concerning teacher perceptions of students' at-risk behavior, it is hypothesized that female teachers will be more likely than male teachers to identify male students as at risk for SEB. The results of this study will inform educators,

administrators, and the developers of screeners on factors that influence screening, to ensure that screening for SEB is done accurately.

## References

Allen-DeBoer, R. A., Malmgre, K. W., & Glass, M. (2006). Reading instruction for youth with emotional and behavioral disorders in a juvenile correctional facility. *Behavioral Disorders, 32*(1), 18-27

Bailey, M. K., Zauszniewski, J. A., Heinzer, M. M., & Hemstrom-Krainess, A. (2007). Patterns of depressive symptoms in children. *Journal of Child & Adolescent Psychiatric Nursing, 20*(2), 86-95. doi:10.1111/j.1744-6171.2007.00090.x

Bennett, D. S., Ambrosini, P. J., Kudes, D., Metz, C., & Rabinovich, H. (2005). Gender differences in adolescent depression: Do symptoms differ for boys and girls? *Journal of Affective Disorders, 89*(1-3), 35-44. doi: 10.1016/j.jad.2005.05.020

Caldarella, P., Young, E. L., Richardson, M. J., Young, B. J., & Young, K. R. (2008). Validation of the Systematic Screening for Behavior Disorders in middle and junior high school. *Journal of Emotional and Behavioral Disorders, 16*(2), 105-117.

Caldarella, P., Shatzer, R. H., Richardson, M. J., Shen, J., Zhang, N., & Zhang, C. (2009). The impact of gender on chinese elementary school teachers' perceptions of student behavior problems. *New Horizons in Education, 57*(2), 17-31.

Code of Federal Regulations. (2008). *Assistance to states for the education of children with disabilities* (Title 34, 300.8 (c)(4)(i))Washington, DC: US. Government Printing Office

Cook, C. R., Gresham, F. M., Kern, L., Barreras, R. B., Thornton, S., & Crews, S. D. (2008). Social skills training for secondary students with emotional and/or behavioral disorders: A review and analysis of the meta-analytic literature. *Journal of Emotional and Behavioral Disorders, 16*(3), 131-144. doi:10.1177/1063426608314541

Donovan, M. S., & Cross, C. T. (2002). *Minority students in special and gifted education* National Academies Press. Washington, DC

Einarsson, C, & Granström, K. (2002). Gender-biased interaction in the classroom: The influence of gender and age in the relationship between teacher and pupil. *Scandinavian Journal of Educational Research, 46*(2), 117-127.

Friedrich, A. A., Raffaele Mendez, L., & Mihalas, Stephanie T. (2010). Gender as a factor in school-based mental health service delivery. [Article]. *School Psychology Review, 39*(1), 122-136.

Green, S., Shriberg, D., & Farber, S. L. (2008). What's gender got to do with it? Teachers' perceptions of situation severity and requests for assistance. *Journal of Educational & Psychological Consultation*, 18(4), 346-373. doi:10.1080/10474410802463288

Gresham, F. M., MacMillan, D. L., & Bocian, K. (1996). "Behavioral earthquakes:" Low frequency, salient behavioral events that differentiate students at-risk for behavioral disorders. *Behavioral Disorders, 21*(4), 277-292.

Hazell, Philip. (2007). Does the treatment of mental disorders in childhood lead to a healthier adulthood? *Current Opinion in Psychiatry, 20*(4), 315-318.

Hibel, J., Farkas, G., & Morgan, P. L. (2010). Who is placed into special education? *Sociology of Education, 83*(4), 312-332.

Hoffman, M. L., Pawlishta, K. K., & White, K. J. (2004). An examination of gender differences in adolescent adjustment: The effect of competence on gender role differences in symptoms of psychopathology. *Sex Roles*, 50(11/12), 795-810.

Huberty, T. J. (2008). Best Practices in School-Based Interventions for Anxiety and Depression. In A. Thomas and J. Grimes (eds.) *Best practices in school psychology V*. Bethesda, MD: National Association of School Psychologists. 92(4), 1473-1486.

Jacobs, S. (2007). *Ethics and Law for School Psychologists*. Hoboken: John Wiley & Sons, In.

Kokkinos, C. M., Panayiotou, G., & Davazoglou, A. M. (2004). Perceived seriousness of pupils' undesirable behaviors: The student teachers' perspective. *Educational Psychology, 24*(1), 109-120. doi:10.1080/0144341032000146458

Landrum, T. J., Tankersley, M., & Kauffman, J. M. (2003). What is special about special education for students with emotional and behavioral disorders? *The Journal of Special Education*, 37,148–156. doi:10.1177/00224669030370030401

Lane, K.L., Parks, R. J., Kalberg, J. R., & Carter, E. W. (2007). Systematic screening at the middle school level: Score reliability and validity of the student risk screening scale. *Journal of Emotional and Behavioral Disorders, 15,* 4, 209-222. doi:10.1177/10634266070150040301

Lane, K. L., Robertson Kalberg, J., Lambert, E. W., Crnobori, M., & Bruhn, A. L. (2010). A comparison of systematic screening tools for emotional and behavioral disorders: A replication. *Journal of Emotional and Behavioral Disorders, 18*(2), 100-112. doi:10.1177/1063426609341069

Lloyd, John. (1991). Why do teachers refer pupils for special education? An analysis of referral records. *Exceptionality, 2*(3), 115-126.

Lopez, J.M.; Santiago, M.J., Godas, A. Castro, C. Villardefrancos, E., & Ponte, D. (2008). An

integrative approach to burnout in secondary school teachers: Examining the role of student disruptive behavior and disciplinary issues. *International Journal of Psychology and Psychological Treatment, 8,* 2, 259-270.

Maschi, T., Morgen, K., Bradley, C., & Hatcher, S.S. (2008). Exploring gender differences on internalizing and externalizing behavior among maltreated youth: Implications for social work action. Child Adolescent Social Work Journal 25, 531-547.

Maunder, R. E. (2010). Pupil and staff perceptions of bullying in secondary schools: Comparing behavioural definitions and their perceived seriousness. *Educational Research, 52*(3), 263-282.

McConaughy, S. H. & Ritter, D. R. (2008). Best Practices in Multimethod Assessment of Emotional and Behavioral Disorders. In A. Thomas and J.Grimes (eds.) *Best practices in school psychology V*. *42*(2). 697-716. Bethesda, MD: National Association of School Psychologists.

McIntyre, L. L. (1988). Teacher gender: A predictor of special education referral? *Journal of Learning Disabilities, 21*(6), 382-383.

National Center of Educational Statistics, U.S. Department of Education. (2010). *Teacher Attrition and Mobility: Results from the 2008-09 Teacher Follow-up Survey*. Retrieved June 7, 2011, from the National Center for Education Statistics Web site: http://nces.ed.gov/fastfacts/display.asp?id=28

Regan, K. S., Mastropieri, M. A., & Scruggs, T. E. (2005). Promoting expressive writing among students with emotional and behavioral disturbance via dialogue journals. *Behavioral Disorders, 31*(1), 33-50.

Reynolds, W. M. (1990). Introduction to the nature and study of internalizing disorders in children and adolescents. *School Psychology Review, 19*(2), 137.

Rice, E. H., Merves, E., & Srsic, A. (2008). Perceptions of gender differences in the expression of emotional and behavioral disabilities. *Education and Treatment of Children*, *31*(4).

Rock, E. E., Fessler, M. A., & Church, R. P. (1997). The concomitance of learning disabilities and emotional/behavioral disorders: A conceptual model. *Journal of Learning Disabilities, 30*(3), 245-263. doi:10.1177/002221949703000302

Santiago, M. (2008). Occupational stress in secondary school teachers: Examining the role of students' disruptive behaviour and/or attitudes and the perceived difficulty in conflict management. *European Journal of Education and Psychology, 1*(1), 39.

Starosta, K. (2010). *A comparison of functional assessment- and non-functional assessment-based interventions for students with emotional and behavioral disorders* (Doctoral dissertation, Lehigh University). Available from Dissertations & Theses database. (Publication No. AAT 3404118)

Talbott, E. (1997). Reflecting on antisocial girls and the study of their development: Researchers' views. *Exceptionality, 7*(4), 267-272.

Tejeda-Delgado, M. (2009). Teacher efficacy, tolerance, gender, and years of experience and special education referrals. *International Journal of Special Education, 24*(1), 112-119.

U.S. Department of Education, National Center for Education Statistics (2012). *Digest of Education Statistics, 2011* (NCES 2012-001), Table 46. Retrieved from http://nces.ed.gov/fastfacts/display
.asp?id=64

U. S. Department of Education. (2006). *28th Annual report to Congress*. Washington,

D.C.. Retrieved from http://www2.ed.gov/about/reports/annual/osep/2006/parts-b-c/index.html

U. S. Department of Education. (2007) *Disproportionality and Overidentification*. Office of Special Education Programs. Washington D.C.: Retrieved from: http://idea.ed.gov/explore/view/p/%2Croot%2Cdynamic%2CTopicalBrief%2C7%2C

Utah State Office of Education. (n.d.). *Utah State Board of Education special education rules*. Salt Lake City, UT: Author. Retrieved from http://www.schools.utah.gov/sars/DOCS/law/finalrules.aspx

Wagner, M., Kutash, K., Duchnowski, A. J., Epstein, M. H., & Sumi, W. C. (2005). The children and youth we serve: A national picture of the characteristics of students with emotional disturbances receiving special education. *Journal of Emotional & Behavioral Disorders, 13*(2), 79-96.

Walker, H. M., & Severson, H. H. (1992). *Systematic Screening for Behavior Disorders (SSBD).* Longmont, CO: Sopris West.

Young, E. L., Caldarella, P., Richardson, M. J., &Young, K. R. (2011). *Positive Behavior Support in Secondary Schools: A Practical Guide*. New York: Guilford Press.

Young, E. L., Sabbah, H., Young, B. J., Reiser, M. J., & Richardson, M. J. (2009). Gender differences and similarities in a screening process for emotional and behavioral risks in secondary schools. *Journal of Emotional and Behavioral Disorders. 18*, 225-235. doi:10.1177/1063426609338858

**Appendix B**

# EBD-Teacher Nomination Form

Externalizing Behaviors

*Please read through the following examples and non-examples of externalizing behaviors. Then nominate five students who most clearly exhibit behaviors consistent with the listed examples of externalizing behaviors. Then rank those five students in terms of severity with 1 being the student who is most at-risk for externalizing behaviors and 5 being the student who is least at-risk. A student may only be nominated in **ONE** category, either external or internal, so if a student seems to meet the criteria for both, decide which category is more fitting.*

| Examples of Externalizing | Non-examples of Externalizing |
|---|---|
| • **Seeks attention through negative behavior**<br>• **Is aggressive towards people or things**<br>• **Disobeys rules**<br>• **Annoys others on purpose**<br>• **Defies adults**<br>• **Acts without thinking** | • **Has good self-control**<br>• **Behaves appropriately when not supervised**<br>• **Is attentive in class**<br>• **Follows teacher directions** |

**Nominate**

**Student Initials __ __ __ M/F**

**Student Initials __ __ __ M/F**

**Student Initials __ __ __ M/F**

**Student Initials __ __ __ M/F**

**Student Initials __ __ __ M/F**

**Rank**

**1. __ __ __**

**2. __ __ __**

**3. __ __ __**

**4. __ __ __**

**5. __ __ __**

# EBD-Teacher Nomination Form

Internalizing Behaviors

*Please read through the following examples and non-examples of internalizing behaviors. Then nominate five students who most clearly exhibit behaviors consistent with the listed examples of internalizing behaviors. Then rank those five students in terms of severity with 1 being the student who is most at-risk for internalizing behaviors and 5 being the student who is least at-risk. A student may only be nominated in **ONE** category, either external or internal, so if a student seems to meet the criteria for both, decide which category is more fitting.*

| Examples of Internalizing | Non-examples of Internalizing |
|---|---|
| • **Seems sad or depressed**<br>• **Avoids social situations**<br>• **Seems lonely**<br>• **Does not easily talk with other students**<br>• **Shows low energy or seems lethargic**<br>• **Is teased, neglected, and/or avoided by peers** | • **Participates easily in classroom discussion**<br>• **Recovers quickly when criticized or teased**<br>• **Seems to enjoy working in a group**<br>• **When greeted by others, responds positively.** |

| **Nominate** | **Rank** |
|---|---|
| **Student Initials __ __ __ M/F** | **1. __ __ __** |
| **Student Initials __ __ __ M/F** | **2. __ __ __** |
| **Student Initials __ __ __ M/F** | **3. __ __ __** |
| **Student Initials __ __ __ M/F** | **4. __ __ __** |
| **Student Initials __ __ __ M/F** | **5. __ __ __** |