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The Effect of Student Gender on Secondary School Teacher Perceptions of Social, Emotional, and Behavioral Concerns

Erin Ann Williams

Brigham Young University - Provo

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The Effect of Student Gender on Secondary School Teacher Perceptions
of Social, Emotional, and Behavioral Concerns

Erin Williams

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

Ellie L. Young, Chair
Paul Caldarella
Shannon Dulaney

Department of Counseling Psychology and Special Education

Brigham Young University

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ABSTRACT

The Effect of Student Gender on Teacher Perceptions of Social, Emotional, and Behavioral Concerns

Erin Williams

Department of Counseling Psychology and Special Education, BYU
Educational Specialist

Students at risk for social, emotional and behavioral concerns (SEBC) are likely to experience a variety of negative outcomes if not identified and provided with appropriate interventions in a timely manner. Males tend to be identified more frequently than females for SEBC (Young, Sabbah, Young, Reiser, & Richardson, 2010), and there are many variables that may contribute to this disproportionate identification. This study specifically examined the influence of student gender on secondary education teachers' referral decisions for students at risk for SEBC. This study additionally examined the influence of teachers' prior referral experience, confidence in the mental health services available at their schools, perceived severity of problematic behaviors, and teacher gender as other variables potentially influencing teacher likelihood of referral.

A sample of 229 secondary teachers was given vignettes about hypothetical male and female students with internalizing and externalizing concerns followed by a questionnaire. Findings from this study indicate that males with internalizing concerns were the most likely to be referred. Additionally, teachers' prior referral experiences and their confidence in the mental health services available at their schools influenced their likelihood of making a referral. Results from this study can be used to inform and improve screening and identification processes in secondary settings.

Keywords: teacher perceptions, student gender, social concerns, emotional concerns, behavioral concerns

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DESCRIPTION OF THESIS STRUCTURE

This thesis, *The Effect of Student Gender on Teacher Perceptions of Social, Emotional, and Behavioral Concerns*, 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 is presented in the new journal-ready format and conforms to the style requirements for future publication in education journals. The full literature review is included in Appendix A. Two reference lists are included in this 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. Appendices B, C, D, E, F, and G include the materials given to participants for participation in this study.

Introduction

Students at risk for Social, Emotional, and Behavioral Concerns (SEBC) are forecasted to experience a myriad of negative outcomes if they do not receive interventions to address their concerns in a timely manner (Lane, Parks, Kalberg, & Carter, 2007). The first step towards meeting the needs of these students is accurate identification through universal, school-wide screening (Lane, Oakes, & Menzies, 2010).

Schools tend to identify and classify students with significant SEBC and provide them with services under the special education disability category Emotional Disturbance (ED), which can also be referred to as Serious Emotional Disturbance (SED) (Code of Federal Regulations, title 34, Section 300.8(c)(4)(i); 2008; Maanum, 2009). Approximately 10-15% of students are at risk for developing a serious emotional or behavioral disorder (Walker, Cheney, Stage, & Blum, 2005); however, less than 1% of students receive special education services under the label ED (U.S. Department of Education, 2009; Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). It is likely that many students with social, emotional, and behavioral concerns are overlooked and their needs are not addressed. It is also possible that the ED category captures a narrow range of students with significantly maladaptive behaviors and only after these students have experienced failure in a variety of settings over time (Horner, Todd, Lewis-Palmer, Irvin, Sugai, & Boland, 2004; Lane, Bruhn, Eisner, & Kalberg, 2010). The broader term SEBC provides a more encompassing definition under which students with a range of social, emotional, and behavioral difficulties (such as infrequent arguing with a teacher to chronic physical fights with peers) can be identified and provided with services that meet their needs. It is essential that educators become knowledgeable about SEBC as well as effective and timely identification methods so

that students can be identified and supported before they develop significant problems and require special education services (Lane, Oakes, et al., 2010).

Screening for SEBC

School-based universal screeners consider all students in a school in order to identify those who may benefit from additional instruction and support (such as those at risk for developing SEBC) (Lane, Oakes, et al., 2010). Early identification is key because appropriate interventions must be provided for students before their disorders develop and maladaptive behaviors become fixed (Lane, Kalberg, Lambert, Crnabori, & Bruhn, 2010).

The research literature around universal screening has primarily focused on elementary-aged students (Glover & Albers, 2006), and less attention has been given to screening in secondary settings (Lane, Parks, et al., 2007). This is concerning, because if not identified, students experiencing behavior problems during the middle school years may develop more severe behavior problems and disorders later (Lane, Parks, et al., 2007). Additionally, adolescence is a time when youth are likely to develop mental health problems (Kessler, Berglund, Demler, Jin, & Merikangas, 2005). Understanding variables, such as gender, that may influence the screening process could contribute to accurately identifying youth with SEBC using a universal screening process.

Disproportionate Identification

Under the Individuals with Disabilities Education Improvement Act (IDEIA), states are required to monitor their local education agencies (LEAs) and adequately measure disproportionate representations of various groups in special education and related services; they must also evaluate if this representation is due to inappropriate identification methods (U.S. Department of Education, 2007). One group that is disproportionately represented in special

education is males, who are the majority of students receiving special education services (U.S. Department of Education, 2002). In regards to SEBC specifically, research indicates that students with SEBC are being disproportionately identified by gender, again with males being identified more frequently than females (Wagner et al., 2005; Young, Sabbah, Young, Reiser, & Richardson, 2010). Males comprise nearly 80% of the ED category (Donovan & Cross, 2002; Wagner et al., 2005).

Mental health interventions and identification methods for children and adolescents rarely take into account group differences such as gender (Henning-Stout, 1998; The National Advisory Mental Health Council Workgroup on Child and Adolescent Mental Health Intervention Development and Deployment, 2001; Young et al., 2010). In order to proportionately identify students with SEBC and provide them with appropriate services that meet their needs, researchers and educators should consider the role of gender in the identification and intervention process. A better understanding of how males and females manifest their disorders both differently and similarly is imperative in order to properly serve students with SEBC.

Reasons for Disproportionate Identification

The specific reasons for the disproportionate representation of males and females identified with SEBC have not been understood with certainty; however, several possible explanations have been offered. Some research has suggested that males tend to be more frequently identified because teachers and administrators who complete screening nomination forms are more likely to notice externalizing behaviors, which are more typical of male students (Kokkinos, Panayiotou, & Davazoglou, 2004; Lane, Parks, et al., 2007). Other research suggests that screening instruments are not sensitive to gender specific concerns or to the internalizing

symptoms of SEBC, which are more typical of girls (Henning-Stout, 1998; Young et al., 2010). Further research proposes that females with disabilities are not being appropriately identified due to biological and maturational differences between males and females. For example, girls are believed to mature more rapidly and to have fewer birth defects than boys (U.S. Department of Education, 1998; Wehmeyer & Schwartz, 2001). It is also possible that more males actually have SEBC or that a bias exists somewhere within the identification process (Caldarella, Shatzer, Richardson, Shen, Zhang, & Zhang, 2009). These reasons still being evaluated, so it is of value to take a closer look at the referral and identification process.

Teachers are often the first step in the identification process, and they provide the majority of special education referrals. Two studies found that 74% of referrals for special education came from general education teachers as compared to other school specialists (such as counselors), parents, administrators, and self-referrals (Kavale & Reese, 1992; Lloyd, Kauffman, Landrum, & Roe, 1991); additionally the majority of referrals came from teachers who were female (Green, Shriberg, & Farber, 2008). There is a need to evaluate teacher perceptions of SEBC and their judgment processes when making referrals because it is possible that the disproportionate representation of male students with SEBC is due to teachers relying on gender stereotypes during the identification process.

Statement of Purpose

The primary purpose of this study was to determine if secondary education teachers make referral decisions differently based on gender for students at risk for social, emotional and behavioral concerns. This study additionally evaluated other variables that may have an influence on the referral process. These variables included teacher experience, teachers'

confidence in the mental health services available at their schools, teachers' perceived severity of problematic behaviors, and teacher gender.

To evaluate these variables and their effect on teacher likelihood of referral, the researchers asked a) Do teachers make referral decisions for secondary students with SEBC differently based on student gender?; b) Does prior referral experience influence teachers' current referral decisions?; c) Are teachers more likely to make a referral if they are confident that the services available to students in the schools will actually help them?; d) Are teachers more likely to make a referral if they perceive problematic student behavior to be severe?; e) Does teacher gender have an influence on likelihood of student referral?

The study was conducted using questionnaires to assess teachers' referral decisions, and reasons behind them, after reading contextualized vignettes about students with externalizing and internalizing concerns. Based on previous research regarding teacher perceptions of male and female students with SEBC it was hypothesized that teachers would be more likely to identify male students regardless of the type of disorder they had (e.g., internalizing or externalizing; Hardman, 2013; Wagner et al., 2005; Wehmeyer & Schwartz, 2001; Young et al., 2010). Results from this study can be used to inform screening research and inform educators and administrators about ways to improve the screening and referral process for SEBC. It is hoped that findings from this study will facilitate accurate screening procedures and provide increased understanding about the disproportionate representations of students with SEBC in secondary settings.

Method

Participants

Secondary education teachers from a state in the U.S. Intermountain West were recruited to participate in this study. Teachers were recruited using a random sampling method from a summary list of secondary teachers in the state. Materials for participation were bundled into packets and mailed to 800 teachers. The participation rate (completed packets) was projected at 200+ teachers. They were assured that their identity would be kept confidential.

Materials

Materials for participation included a cover letter describing instructions for participation and consent information (see Appendix B), an information form for the prize drawing (see Appendix C), a demographic questionnaire (see Appendix D), one vignette (of either a male or female student displaying internalizing concerns or externalizing concerns; see Appendices E and F), and a questionnaire following the vignette (which teachers used to answer questions about the vignette; see Appendix G). Each vignette provided behavioral descriptions that were detailed and concrete in order to evoke from participants the most realistic responses possible as they complete the questionnaire. Vignettes were utilized in this study, because they provide a constant stimulus situation, allowing for experimental control to be maintained (Alexander & Becker, 2001).

The behaviors described in the vignettes were derived from some items from the Behavior Assessment System for Children – 2 Behavior and Emotional Screening System (BASC-2-BESS). The BASC-2-BESS is a contemporary screening instrument that is used to measure the behavioral and emotional functioning of children and adolescents (Kamphaus & Reynolds, 2007). The reason for selecting items from this particular screener for the vignettes

was that it has been shown to provide an accurate and reliable source of information regarding emotional and behavioral risk of preschool through 12th grade students (Kamphaus & Reynolds, 2007; Renshaw, Eklund, Dowdy, Jimerson, Hart, Earhart, & Jones, 2009).

The BASC-2-BESS consists of three brief forms that can be completed by parents, teachers, or students. The specific items describing the problem behaviors utilized in the vignettes of the current study were selected from the teacher rating form; specifically items that loaded the highest on the teacher rating scales for adolescents (ages 12-21 years) were used. Items that loaded the highest represent the most common externalizing and internalizing behavior problems as seen in adolescents from a teacher's perspective (Kamphaus & Reynolds, 2007). Additionally, the behaviors described in the vignettes are identical for both males and females; only gendered pronouns (e.g., him/her or he/she) were changed so that differences in teacher judgments were attributed to student gender and not to behavior differences. Names utilized for the male and female versions of the externalizing and internalizing vignettes were gender neutral and identical, again so that differences in referral could be attributed to the gender of the student.

The questionnaire consisted of two parts. The first part included three questions to assess teacher likelihood of referral as well as variables that may have influenced teacher likelihood of referral; the second part included the BASC-2-BESS teacher rating form to assess perceived severity of the problem behaviors described in the vignette. It is important to note that the behaviors described in the vignettes did not explicitly state the items pulled from the BASC-2-BESS teacher rating form; the purpose of this was so that teachers will have relied on their judgment to decide whether or not the behaviors occurred in the vignette they just read, and if so, how severe they perceived each behavior to be. Otherwise, if items from the teacher rating form

were explicitly stated within the vignettes, teachers may have been inclined to rate and select only those items as opposed to relying on their own judgment.

Parts one and two of the questionnaire measured the following variables: the perceived severity of the problem behaviors described in each vignette (a potential intervening variable influencing teachers' likelihood of referral), teachers' likelihood of referring the students described in each vignette (dependent variable), teachers' previous SEBC referral experience (a potential intervening variable), and the likelihood that the services available in each teachers' schools would have adequately meet the students' needs (a potential intervening variable). Most of the information gathered from teachers in the demographic questionnaire was not utilized to determine other intervening variables in the current study, such as years of teaching experience and teacher ethnicity. Only teacher gender was evaluated as another intervening variable.

The purpose of inquiring about previous referral experience on the questionnaire was to determine if teachers' perspectives of the mental health services available in their schools had an influence on their referral decisions. For example, it is possible that the teachers' may not have believed that the at-risk students would have received adequate help if referred, or perhaps they have had negative experiences with school counselors or psychologists in the past. Schilling (2009) found that some teachers felt that the professionals to whom they referred students either did not effectively serve their students, or that the professional was too busy to help the students. They also felt that some students' issues were beyond the scope of the professional skills available in their schools.

Procedures

To ensure the usefulness of the measure, various reviewers read preliminary versions of the vignettes and questionnaires. These reviewers had a variety of experiences and backgrounds:

a research team studying screening methods for identifying students with SEBC, expert reviewers specializing in fields of behavioral disorders and gender issues, school psychologists, and teacher education students.

Once the vignettes were finalized, materials for participation in the study were bundled into packets and mailed to teachers. Teachers then used the questionnaires to answer questions about hypothetical students that they read about in the vignettes. After the questionnaires were completed, teachers returned the completed materials via mail to the researcher (postage was provided). Each teacher who returned the materials (including the contest form) was entered into a drawing to win an iPad or one of five \$50.00 visa gift cards.

A response rate of 28.6% was obtained. Teachers completed surveys for the following vignettes: 68 externalizing females, 60 internalizing females, 49 externalizing males, and 52 internalizing males. The reason for the difference in the number of vignettes returned in each category is not clear; the researchers collected surveys until at least 200 were returned. Responses were then analyzed to determine if the gender of the students described in the vignettes influenced teachers' referral decisions as well as their perceived level of severity of the externalizing or internalizing concerns.

The majority of the participants were female and white, which is relatively representative of the teacher population in the state from which participants were sampled (see Table 1). Additional demographic characteristics of participants include the following: 19.7% were between the ages of 18 and 29, 19.2% were between the ages of 30 and 39, 24% were between the ages of 40 and 49, and 37.6% were 50 or older. Just over 40% reported less than 10 years of teaching experience, while 30.6% reported between 10 and 19 years of teaching experience. Just

over 29% reported 20 years or more of teaching experience, while 45% hold a bachelor's degree and 55% hold a graduate level degree.

Table 1

Study Sample Teacher Population Relative to State Teacher Population

Sample Population		U.S. Intermountain West State Population	
Male	36.7%	Male	21.3%
Female	68.3%	Female	78.5%
American Indian/ Alaska Native	0.9%	American Indian/ Alaska Native	0.5%
Asian/ Pacific Islander	1.3%	Asian/ Pacific Islander	2.7%
Black/ African American	0.4%	Black/ African American	0.4%
Hispanic/ Latino	2.2%	Hispanic/ Latino	2.9%
White	91.3%	White	85.0%
Other	3.9%	Other	8.4%

Data Analysis

The following sections discuss the statistical analyses used to measure the effects of student gender, teachers' prior referral experience, teachers' confidence in mental health services available, teachers' perceived severity of problematic student behavior, and teacher gender on their likelihood of referring the hypothetical students in the vignettes. Follow-up analyses are also discussed, as well as reasons for selecting and utilizing each analysis.

Analysis of student gender bias. This research sought to answer the following primary research question: Do teachers make referral decisions for secondary students with SEBC differently based on student gender? To answer this question we chose to analyze the data using a Kruskal-Wallis H test. Like ANOVA, the Kruskal-Wallis H tests for mean differences among two or more groups. Because the data were not normally distributed, and the vignettes themselves are confounded (which violates two of the assumptions for ANOVA), we felt that the Kruskal-Wallis H more appropriate. It makes no assumption concerning distribution, and allows for the four groups to be considered equal to one another; therefore, any significant differences

found were attributed to the influence of student gender on teachers' referral decisions and not to the wording of the vignettes. The vignettes were confounded because the male and female versions of the externalizing and internalizing vignettes are exactly same (with the exception of gendered pronouns). For this analysis the independent variable was the four different versions of vignettes, and the dependent variable was teacher likelihood of referral.

A chi-square test of independence was also conducted to more closely evaluate where significant relationships were occurring when the data was weighted proportionally (each of the four hypothetical students were just as likely to be referred as any of the others). The variables used in this test were the same as the variables used in the Kruskal-Wallis H test. For all statistical analyses comparing means among two or more groups in which the independent variable is the four different versions of the vignettes, a Kruskal-Wallis H test was utilized for the same logic mentioned previously.

Analysis of teachers' prior referral experience. This research also sought to evaluate whether or not teacher's previous referral experiences (previous referral of students similar to the students described in the vignettes) influenced their likelihood of referring the students described in the vignettes. To answer this question, a Mann-Whitney U test was conducted. The Mann-Whitney U test was utilized as opposed to its' non-parametric counterpart the T-test due the same violation of assumptions mentioned above. The independent variable for this test included teachers' responses (yes or no) to the question, "In the past three years have you referred a child who fits this description to the school psychologist, school counselor or other school personnel for consultative mental health services?" The dependent variable was teacher likelihood of referral. For all statistical analyses comparing means among two groups in which the

independent variable is the four different versions of the vignettes, a Mann-Whitney U test was utilized for the same logic mentioned previously.

An analysis of covariance (ANCOVA) was additionally conducted to evaluate the relationship between prior experience and likelihood of referral when the effect of the vignette type was removed from the equation. A parametric test was utilized in this instance because researchers trusted that a more sensitive parametric measure (ANCOVA) would not provide a different result if the non-parametric Mann-Whitney U test was significant. Additionally, this test allowed the effect of the vignette type to be removed.

Analysis of teachers' confidence in services available. This research also evaluated if teacher's likelihood of referral was influenced by their confidence in their schools' available mental health services. To answer this question, a Spearman *rho* correlation coefficient was conducted. The independent variable in this analysis included teacher responses to the question, "If referred, my school's mental health services personnel would adequately meet the needs of this student," and the dependent variable was teacher likelihood of referral.

A chi-square test of independence was also conducted to more closely evaluate where significant relationships were occurring when the data was weighted proportionally. The variables used in this test were the same as the variables used in the Spearman *rho* test. Additionally, an ANCOVA was conducted to determine if the relationship between teacher likelihood of referral and teachers' confidence in services available was significant when the effect of the vignette type was removed from the equation. A parametric measure was utilized in this instance for the same logic mentioned previously (see data analysis for evaluating the effect of teachers' prior experience on likelihood of referral).

Analysis of perceived severity of student behavior. This research additionally evaluated if teachers' perceived severity of the students' problem behaviors described in the vignettes influenced their likelihood of referring the hypothetical students. To answer this question, a Kruskal-Wallis H test was conducted. The independent variable for this analysis was derived the BASC-2-BESS teacher rating form raw scores; scores from 0-28 were categorized normal, 29-31 were categorized as slightly more concerns than normal, 32-39 were categorized as elevated, 40-44 were categorized as slightly more concerns than elevated, and scores of 45+ were categorized as extremely elevated (Kamphaus & Reynolds, 2007). These categories were created to align raw scores as closely as possible to t-scores for students in age groups 10-14 and 15-18. The dependent variable was teacher likelihood of referral.

Analysis of teacher gender. Lastly, this research evaluated whether or not teacher gender had an influence on teacher referral of the hypothetical students. To answer this question, a Man-Whitney U test was conducted. The independent variable in this analysis was teacher gender and the dependent variable was teacher likelihood of referral, or teacher responses to the question, "How likely are you to refer this child to the school psychologist, school counselor or other school personnel for consultative mental health services?"

Results

Student Gender Bias

The primary research question sought to determine whether or not teacher judgments regarding need for student referral differed based upon their pre-existing attitudes about student gender. To answer this question a Kruskal-Wallis H test was conducted comparing the outcome of teacher likelihood of referral with one of four hypothetical student scenarios (externalizing male, internalizing male, externalizing female, or internalizing female). A total of 225 of the total

229 surveys provided valid responses for this test, because 4 teachers did not answer the question, “How likely are you to refer this child to the school psychologist, school counselor or other school personnel for consultative mental health services?” on the questionnaire. Teachers responded to this question on a Likert-type scale with the following response options: Very unlikely, unlikely, neither likely nor unlikely, likely, or very likely. A significant result was found, $H(2) = 9.673, p < .05$, indicating that at least one of the groups differed significantly from the others. Follow-up pairwise comparisons indicated a significant difference between the referral rates for internalizing males and externalizing females (see Table 2), with internalizing males being significantly ($p=.017$) more likely to be referred than were externalizing females. A second significant result was found, indicating that internalizing males were more likely to be referred than externalizing males ($p=.022$); this result, however, was significant only before a Bonferroni adjustment was calculated. Bonferroni adjustments are calculated to control for Type 1 error accumulating across multiple pairwise tests. In other words, when Type 1 error was controlled for, the only significant result yielded was that internalizing males were significantly more likely to be referred than externalizing females. In both comparisons males with internalizing concerns were more likely to be referred than the other groups. No other pairwise comparisons found a significant result.

To further evaluate the significant difference found, a chi-square test of independence was conducted. Results of this test indicated that a significant interaction was not found $\chi^2(1) = 16.480, p > .05$; however, a significant result was found only in the cell comparing internalizing boys and the “very likely” option (in terms of likelihood of teacher referral) (standard residual =2.0). In other words, a significantly higher number of teachers indicated that they were “very likely” to refer the internalizing male student than was expected (when the data was

proportionally weighted) (see Table 3). Additionally, a trend was evident, indicating that teachers may be “unlikely” to refer female students with externalizing concerns; however, this was not a significant result.

Table 2

Pairwise Comparisons Between Groups

Sample 1- Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.
Externalizing Female- Externalizing Male	- 5.572	11.927	-4.670	.640	1.000
Externalizing Female- Internalizing Female	-12.894	11.192	-1.152	.249	1.000
Externalizing Female- Internalizing Male	-34.549	11.586	-2.982	.003	0.017
Externalizing Male- Internalizing Female	7.332	12.256	0.597	.550	1.000
Externalizing Male- Internalizing Male	-28.997	12.617	-2.297	.022	0.130
Internalizing Female- Internalizing Male	-21.655	11.924	-1.816	.690	0.416

Table 3

Frequency of Likely Hypothetical Student Nominations by Vignette Type

Vignette	Very Unlikely			Unlikely			Neither Likely Nor Unlikely			Likely			Very Likely			Total	
	Cnt.	Exp.	Std. Residual	Cnt.	Exp.	Std. Residual	Cnt.	Exp.	Std. Residual	Cnt.	Exp.	Std. Residual	Cnt.	Exp.	Std. Residual	Cnt.	Exp.
Externalizing Female	4	4.2	-0.1	25	18.5	1.5	13	12.2	0.2	18	23.5	-1.1	7	8.6	-0.6	67	67.0
Internalizing Female	3	3.7	-0.4	16	16.3	-0.1	12	10.8	0.4	21	20.7	0.1	7	7.6	-0.2	59	59.0
Externalizing Male	5	2.9	1.2	13	13.0	0.0	6	8.6	0.2	20	16.25	0.9	3	6.1	1.2	47	47.0
Internalizing Male	2	3.2	-0.7	8	14.3	-1.7	10	9.5	0.2	20	18.3	0.4	12	6.7	2.0	52	52.0
Total	14	14.0		62	62.0		41	41.0		79	79.0		29	29.0		225	225.0

Note. At an alpha level of .05, ± 1.96 yields significant results. Standardized residuals that have a positive value indicate that the cell was over-represented in the actual sample when compared to the expected frequency. Standardized residuals that have a negative value indicate that the cell was under-represented in the actual sample, compared to the expected frequency.

Previous Experience

This research also sought to determine if variables other than student gender influenced teacher likelihood of referral. One of these variables was teachers' previous experience referring students for mental health concerns. To answer this question a Mann-Whitney U test was conducted comparing the outcome of teacher likelihood of referral with their previous experience (i.e., teacher responses to the question: "In the past three years have you referred a child who fits this description to the school psychologist, school counselor or other school personnel for consultative mental health services?"). A total of 225 of the total 229 surveys provided valid responses for this test, because 4 teachers did not provide an answer for how likely they were to refer the hypothetical student. A significant result was found; teachers who had previously referred a similar student were more likely to refer the hypothetical student described in the vignette (m place = 149.65), and teachers who had not previously referred a similar student were less likely to refer the hypothetical student described in the vignette (m place = 88.11; $U = 2762.000$, $p < .001$).

To determine if this result varied by the type of vignette that each teacher read, an ANCOVA was conducted. Results of the ANCOVA indicate that the vignette type was significantly related to teacher likelihood of referral [$(F(1,222) = 4.572, p < .001)$]. The main effect for teachers' previous experience was also significant [$(F(1,222) = 62.417, p < .001)$], indicating that when the effect of the vignette type was removed, the results of the previous analysis still held true: teachers were more likely to refer the hypothetical student if they had referred a similar student previously, and they were less likely to refer the hypothetical student if they had not referred a similar student previously.

Teachers' Confidence in Services Available

A Spearman *rho* correlation coefficient was conducted to determine the relationship between teachers' confidence their schools' mental health programs available and teachers' likelihood of referring the hypothetical students. The first variable was derived from teachers' responses to the statement, "If referred, the needs of this student would be adequately met by my school's mental health services personnel" on the survey. The second variable was derived from teachers' responses to the question, "How likely are you to refer this child to the school psychologist, school counselor or other school personnel for consultative mental health services?" on the survey. A total of 220 of the total 229 surveys provided valid responses to perform this analysis. Results of this analysis indicated that a moderate positive correlation was found ($rho(118) = .357, p < .001$). The more confidence teachers had in the mental health services available at their schools, the more likely they were to refer the hypothetical students.

To further evaluate the significant difference found, a chi-square test of independence was conducted. Results of this test were significant and supported the previous results found: $\chi^2(1) = 47.666, p < .001$; teachers were more likely to refer the hypothetical student for consultative mental health services if they were confident that the needs of the student would be adequately met by their schools' mental health services personnel, and teachers were less likely to refer the hypothetical student if they felt the student's needs were unlikely to be met (see Table 4). To determine if this result varied by the type of vignette that each teacher read, an analysis of covariance (ANCOVA) was conducted. Results of this analysis indicated that the vignette type was not significantly related to teacher likelihood of referral ($F(1,214) = 3.273, p > .05$); however, the main effect for teachers' confidence in their schools mental health services was significant ($F(4,214) = 8.222, p < .001$). In other words, when the effect of the vignette type

was removed, teachers were still more likely to refer students if they were confident that they would receive the help that they needed from the schools mental health services personnel.

Perceived Severity and Teacher Gender

A Kruskal-Wallis H test was conducted to determine if teachers' perceived severity of the hypothetical students influenced their likelihood of referring the students. Teachers' raw scores from the BASC-2-BESS screeners were used for the independent variable in this analysis, and teacher likelihood of referral was the dependent variable. A total of 225 of the total 229 surveys provided valid responses for this test. Results of the analysis were insignificant ($H(2) = 4.446, p > .05$); teachers were not more or less likely to refer the hypothetical students if they perceived their conditions to be more or less severe.

Last, teacher gender was evaluated as a variable potentially influencing teacher likelihood of referral. For this analysis a Man-Whitney U test was conducted, with teacher gender being the independent variable and teacher likelihood of referral being the dependent variable. A total of 225 of the total 229 surveys provided valid responses for this test. Results of the analysis were insignificant ($U = 6,248.500, p > .05$); Male teachers (m place = 109.11) were no more likely than female teachers (m place = 115.32) to refer the hypothetical students described in the vignettes.

Table 4

Frequency of Likely Hypothetical Student Nominations by Likelihood of Meeting Student Needs

Needs Met	Very Unlikely			Unlikely			Neither Likely Nor Unlikely			Likely			Very Likely			Total	
	Cnt.	Exp.	Std. Residual	Cnt.	Exp.	Std. Residual	Cnt.	Exp.	Std. Residual	Cnt.	Exp.	Std. Residual	Cnt.	Exp.	Std. Residual	Cnt.	Exp.
Very Unlikely	3	.5	3.4	4	2.5	1.6	1	1.6	-0.5	1	3.2	-1.2	0	0.5	-1.1	9	9.0
Unlikely	0	1.0	-1.0	9	4.6	2.0	2	3.1	-0.6	6	6.0	0.0	0	2.2	-1.5	17	17.0
Neither Likely Nor Unlikely	6	2.9	1.8	16	13.4	0.7	13	8.9	1.4	12	17.4	-1.3	2	6.5	-1.8	49	49.0
Likely	4	6.3	-0.9	24	29.2	-1.0	18	19.5	-0.3	45	37.9	1.1	16	14.1	0.5	107	107.0
Very Likely	0	2.2	-1.5	7	10.4	-1.0	6	6.9	-0.3	14	13.5	0.1	11	5.0	2.7	38	38.0
Total	13	13.0		60	60.0	40	40.0		78	78.0		29	29.0		220	220.0	

Note. At an alpha level of .05, ± 1.96 yields significant results. Standardized residuals that have a positive value indicate that the cell was over-represented in the actual sample when compared to the expected frequency. Standardized residuals that have a negative value indicate that the cell was under-represented in the actual sample, compared to the expected frequency.

Discussion

The primary aim of this research study was to evaluate whether or not secondary education teachers make SEBC referral decisions differently, based on the gender of students with social, emotional, and behavioral concerns. The most notable finding from this study was that male students with internalizing concerns were referred more often than any other group, including females with internalizing concerns, males with externalizing concerns, or females with externalizing concerns. This finding is interesting in that it both supports previous research and raises further inquiries (Beaman, Wheldall, & Kemp, 2006; Kokkinos et al., 2004; Offord, Boyle, & Racine, 1989; Percy et al., 1993).

Four other variables were also evaluated as potential intervening variables (between student gender and the likelihood of teacher referral). These variables included previous teacher experience (had teachers referred a similar student before?), confidence in the mental health services available at the schools, teachers' perceived severity of the problem behaviors described in the vignettes, and teacher gender. After evaluating these variables it was found that both previous experience and confidence in mental health services available had significant influences on teacher likelihood of referral, even when the effect of the vignette type was removed; these findings are consistent with previous research (Green, Clopton, & Pope, 1996; Percy, Clopton, & Pope, 1993; Schilling, 2009). No significant interactions were found between teacher gender or perceived severity of the behaviors described and teacher likelihood of referral.

The Influence of Student Gender

As previously discussed, there are several possible explanations as to why male students are referred more often than female students for social, emotional, and behavior related concerns. This study specifically examined whether or not teacher perceptions of student gender are

different and therefore contributing to the higher number of male students referred. Prior to conducting this research, it was hypothesized that teachers would be more likely to refer the hypothetical male students than the hypothetical female students in the vignettes regardless of the type of concerns manifested (internalizing or externalizing). This hypothesis was generated for several reasons. First, prior research has found that teachers are more likely to refer males regardless of the type of the disorder they have (Hardman, 2013; Young et al., 2010). A second reason is that previous research has also found that teachers are more likely to refer a student if they have referred a similar student previously (Green et al., 1996; Percy et al., 1993), and males tend to be referred more frequently than females for SEBC (Hardman, 2013; Wagner et al., 2005; Young et al., 2010). Using this logic the researchers assumed that the teachers in the current sample would have likely had more experience referring male students, and would therefore be more likely to refer the hypothetical male students in the vignettes.

A third reason was that research has found that students with externalizing concerns are more likely to be referred than students with internalizing concerns because externalizing behaviors tend to be more disruptive (Kokkinos et al., 2004; Lane, Parks, et al., 2007), and boys are more likely than girls to have an externalizing disorder (Kokkinos et al., 2004; Lane, Parks, et al., 2007; Zahn-Waxler, Shirtcliff, & Marceau, 2008). Additionally, the Kokkinos et al. (2004) study found that teachers were more likely to view non-stereotypical behaviors as more serious (such as males with internalizing concerns or females with externalizing concerns). Given prior studies, the researchers assumed that the teachers in the current study would be more likely to refer the hypothetical male students because boys are more likely to manifest disruptive (externalizing) behaviors, and because teachers are more likely to view non-traditional internalizing gender behaviors as more serious. While female students with externalizing

concerns are also more likely to be viewed as having a more serious condition than males with externalizing concerns (Kokkinos et al., 2004), girls are less likely than boys to have an externalizing disorder (Zahn-Wexler et al., 2008).

Results of this study indicated that student gender alone did not influence teacher likelihood of referral. If gender alone influenced teacher decisions in this study, males with both externalizing and internalizing concerns would have been referred most often. One explanation for this would be to draw upon findings from the Kokkinos et al. (2004) study, because in the current study boys with non-stereotypical behaviors (internalizing behaviors) were more likely to be referred than males with externalizing concerns. It is possible that teachers from the current sample were operating under the stereotype “boys will be boys” when making referral decisions. Prior research has indicated that behavior concerns associated with gender, social norms, and gender stereotyping can influence teacher perceptions of students (Beaman et al., 2006). Perhaps teachers from the current sample have previously tolerated disruptive externalizing behaviors of boys as socially acceptable and common because boys typically manifest more disruptive behavior than girls (Arbuckle & Little, 2004).

A second explanation for this finding maybe that while teachers report having referred more students with externalizing problems in the past, when they are asked who needs to be referred more often, they indicate students with internalizing concerns (Pearcy et al.1993). It has also been shown that teachers are likely to overlook the internalizing concerns of girls (Offord et al., 1989). Potentially teachers were making referrals for the students who they thought required the most help and not the students who would be referred in reality. It is also possible that they were less concerned about females with internalizing concerns because internalizing concerns are more typical of girls (Friedrich, Raffaele Mendez, & Milhalas, 2010; Huberty, 2008).

The Influence of Prior Experience

The finding that internalizing boys were the most likely to be referred provides support for the Kokkinos et.al (2004) study, but it also raises further inquiry because females with externalizing concerns were not as likely to be referred. One explanation for this draws upon previous research that has found that teachers generally pay more attention to males that misbehave than females that misbehave, even when the behaviors are identical (Jones, 1989; Lindley & Keithley, 1991).

Another explanation for this draws upon the finding from the current study that teachers' prior referral experience significantly influenced their current referral decisions. It is possible that teachers were not able to relate their experiences to the externalizing female scenario described, because it is less likely for female students to manifest externalizing concerns (Kokkinos et al., 2004; Lane, Parks, et al., 2007; Zahn-Wexler et al., 2008) (i.e., teachers have had less experience referring female students). Males are more likely to be referred for SEBC (Beaman et al., 2006; Beaman et al., 2007; U.S. Department of Education, 2002; Wagner et al., 2005; Young, Sabbah, et al., 2010), making it possible that the teachers from the current sample have also referred more male students previously, in turn making them more likely to refer hypothetical males in the current study. These findings provide an explanation for why the current study only partially supports the Kokkinos et al. (2004) findings, and it additionally provides support for prior research that has found teacher referral experience to significantly influence current referral decisions (Green et al., 1996; Percy et al., 1993).

Confidence in Services Available

As previously noted, student gender was not the only influential variable on teacher referral decisions. It is possible that teachers were operating under some gender stereotypes, but

as findings from this study have indicated, other factors influenced their decisions as well. One of those factors is teacher confidence in the services available to their students once referred. Schilling (2009) conducted a study in which the perspectives of junior high and middle school teachers were evaluated to aid in the development of a screening tool to identify students at-risk for emotional and behavioral disorders in a secondary setting. In that study the researchers found that some teachers reported that the professionals to whom they referred students either did not effectively serve them, or that these mental health professionals were too busy to help the student. Teachers in the study also noted that some students' issues are beyond the scope of the professional skills available in their schools. In the current study teachers were less likely to refer the hypothetical students if they did not feel that student needs would be adequately met and vice versa. This finding provides support for the Schilling (2009) study, but it also brings up an important factor to consider in improving the identification process for students at-risk for SEBC. Perhaps disproportionate identification issues go beyond problems with appropriate identification and include issues of service delivery.

The Influence of Perceived Severity of Behavior and Teacher Gender

Another variable potentially impacting referral decisions that the researchers sought to address in the current study was perceived severity of student behavior. In other words, were teachers more likely to refer the hypothetical students if they perceived their behaviors to be severe as opposed to being average? This variable was evaluated because SEBC referrals rely heavily on teacher perception (Hibel, Farkas, & Morgan, 2010), and it would be beneficial to know if teachers' perceptions (and thus referral decisions) vary by level of perceived severity of student concerns. It would be helpful to know if their perceptions of severity were influenced by student gender or by the types of concerns manifested. Findings from this analysis were not

significant, indicating that teacher perceptions of students with SEBC may be more influenced by factors other than perceived severity student behaviors.

The last variable evaluated in this study as having a potential influence on teacher likelihood of referral was teacher gender. This variable was evaluated because teachers play an important role in the referral process. They make the majority of referrals to special education, and the majority of those referrals are from female teachers (Donovan & Cross, 2002; Green et al., 2008; Lloyd, 1991; McIntyre, 1988). Findings from this analysis did not yield a significant result, which provides support for previous findings and also contradicts some findings. A study conducted by Hardman (2013) found that teacher gender did not significantly influence a process for identifying secondary students at-risk for emotional and behavioral concerns; however, other studies have proposed that teachers' referral decisions may be influenced by teacher gender (Caldarella et al., 2009; Kokkinos et al., 2004). In the context of the research literature, the finding from the current study indicates that other variables may have a more salient influence on the issue of disproportionate identification, and that teachers continue to play a valuable role in the referral and identification process.

Limitations and Implications for Future Research

Although some interesting inferences and conclusions can be drawn from the findings of the current study, there are some limitations to consider. For example, the variable "teacher perception of severity" was derived from the BASC-2-BESS portion of the survey provided. It is possible that it was difficult for teachers to complete the BASC-2-BESS screener, because the snapshot of each student described in the vignette did not provide enough information to respond to all 27 questions on the screener. Teachers were required to use their best judgment, which may not have provided concrete data regarding their perceptions in this case.

Additionally, several teachers from the sample may have been confused regarding how to complete the screener. Some teachers noted on the BASC-2-BESS that they had completed the screener for a “similar student referred previously” rather than for the student described in the vignette, and other teachers called or emailed to ask for clarification regarding how to complete the screener. Returned surveys that included screeners completed for the “similar student” (not for the hypothetical student) were not included in data analyses. Questionnaires attached to those screeners were also removed from analyses in case those questions were also answered incorrectly. Because several teachers indicated some confusion regarding how to complete the BASC-2-BESS, it is possible that other screeners included in the sample were completed incorrectly. Teacher perception of severity of student behavior is thus an area that warrants further investigation. A BASC-2-BESS may be utilized in future studies to investigate this variable with the use of more specific instruction for how to complete it.

Another limitation of the study is that the vignette and questionnaire format may be different from teachers’ actual experiences. A major criticism of utilizing vignette methodology is that vignettes are artificially constructed and may not adequately capture the reality of the situations they represent (Sleed, Durrheim, Kriel, Solomon, & Baxter, 2002). Additionally vignettes may not elicit the same responses that a real world situation would from research participants (Sleed et al., 2002). It is possible that teachers would have most often referred male students with externalizing concerns in a real life situation, because externalizing concerns are more noticeable and males are more likely to have them (Kokkinos et al., 2004; Lane, Parks, et al., 2007; Zahn-Wexler et al., 2008). The current research format provided a simulation of reality. Results of the study therefore potentially reflect teacher concerns rather than the reality

of their actions. Future research studies could observe teacher perceptions of actual students being referred for SEBC.

Another avenue for future research would be to further evaluate the finding that male students with internalizing concerns were referred most often. More referrals of male students with internalizing concerns potentially indicate that teachers may be more biased towards atypical male behavior in the referral process. Further research is necessary to evaluate this finding, because males are not more likely than females to have an internalizing disorder (Friedrich et al., 2010; Huberty, 2008), and yet they continue to be overrepresented in the EBD special education category (Young et al., 2010).

Lastly, the demographics of the sample from the current study relatively resembles the demographics of the U.S. intermountain west state from which they were sampled (see Table 1). The majority of the respondents were female and white. A replication of the current study in state with a more diverse teacher population would be valuable research to conduct in the future, particularly to determine if teacher ethnicity has an influence on the likelihood of student referral.

Implications for Practice

This research sought to assist in the development a universal screening system to help identify students who are at risk for SEBC in secondary settings. An appropriate screening measure to be utilized in secondary settings is still being developed (Deverich-Davis, 2012; Lane, Bruhn, et al., 2010; Lane, Parks, et al., 2007), and findings from this study can be useful in the interpretation and creation processes of this screening instrument. Findings from this study can additionally be used to open the door for further research endeavors to help inform and improve the identification process for students with SEBC.

As part of the development of this screening tool, it is valuable to consider the various factors that may influence universal screening outcomes. For example, Hibel et al. (2010) found that disproportionate representation in special education is likely to occur among disabilities that rely heavily on teacher judgment for identification and referral. The special education disability category Emotional Disturbance (ED) depends largely on teacher perceptions (Hibel et al., 2010), therefore teacher perceptions of student gender (and other demographic characteristics) are an important factor to consider in the referral and screening processes.

Males with internalizing concerns were more likely to be referred than any other group in the current study, indicating it is likely that gender alone does not influence teacher referral decisions, but a combination of gender and the type of concerns manifested is likely to have a shared influence. It is important that teachers and others making referrals for SEBC become better informed about how males and females manifest concerning behaviors differently. For example, which behaviors should yield concern and thus warrant a referral for services for males and females?

It is also important that the screening instrument take into consideration the different ways in which males and females manifest concerning behaviors. Just because the three other groups (externalizing females, externalizing males, and internalizing females) were not referred as often as the internalizing males in the current study, does not mean that they did not need supportive services or direct interventions.

Results from this study further indicate that referral decisions may be largely a product of teacher experience. Teachers and others who are making referrals should therefore be encouraged not to make referrals based on their prior experience alone. While experience is important for learning about concerning behaviors and conditions, each student's concerns are

unique and should be evaluated in that way. For example, just because a teacher has never referred a female with externalizing concerns before, does not mean that the student's troublesome behavior should be overlooked.

Summary

The primary goal of this research was to evaluate a potential reason why males are referred more frequently than females for SEBC. Specifically this study sought to answer whether or not teachers were relying on their pre-existing attitudes about student gender during the identification process. The researchers felt that this particular phenomenon was important to evaluate because it is possible that female students with SEBC are not being appropriately identified and thus effectively served in their educational settings (U.S. Department of Education, 1998; Wehmeyer & Schwartz, 2001; Young, et al., 2010). Universal screeners are often used to identify students with SEBC (Lane, Oakes, et al., 2010), and an appropriate screening tool to be utilized in secondary settings is being developed (Deverich-Davis, 2012; Lane, Bruhn, et al., 2010; Lane, Parks, et al., 2007). This research sought to assist in the development process of this screening tool.

To evaluate if teachers were utilizing pre-existing attitudes about gender in the referral process, a sample of 229 secondary teachers were given vignettes about hypothetical male and female students with internalizing and externalizing concerns followed by a questionnaire to assess their likelihood of referring the students, their prior referral experience, their confidence in their schools' mental health services, and their perceived severity of the problem behaviors described in the vignettes.

Results of the study included the following: males with internalizing concerns were more likely to be referred than any other group including males with externalizing concerns, females

with externalizing concerns, and females with internalizing concerns. Additionally teachers' prior referral experiences and their confidence in the mental health services available at their schools had significant influences on their likelihood of referring the hypothetical students. These results indicated that pre-existing attitudes about student gender alone do not influence teacher referral decisions, but rather a variety of factors influence the referral process.

Disproportionate identification of students with SEBC is a complex issue that requires further investigation; nonetheless, teacher perceptions of student gender play a significant role in the identification process. It is hoped that teachers and others making referral decisions for SEBC seek to become informed about how males and females manifest their disorders differently before making referral decisions. Future screening instruments need to take into consideration the different ways in which males and females manifest concerning behaviors.

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APPENDIX A: Review of Literature

A definition of Social, Emotional, and Behavioral Concerns (SEBC) and the difficulties that students with these problems have will be presented at the beginning of this literature review. Screening, as a method for identifying students at risk for SEBC, will then be discussed, followed by gender disproportionate identification and possible issues that contribute to this problem. Lastly, the role that teachers play in the screening and identification process will be discussed as well as the importance of considering their pre-existing attitudes about male and female students at risk for SEBC.

Social Emotional and Behavioral Concerns Defined

In order to best identify students who are at risk for SEBC and provide them with appropriate services, it is beneficial to first understand how SEBC is perceived within school settings. Schools classify some students with SEBC and provide them with special education services under the category Emotional Disturbance (ED), a disability category under special education law. ED can be additionally referred to by the term Serious Emotional Disturbance (SED). This categorization is specifically found within the U.S. Individuals with Disabilities Education Act (IDEIA, 2004), where ED is defined 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:

1. An inability to learn that cannot be explained by intellectual, sensory, or health factors.
2. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
3. Inappropriate types of behavior or feelings under normal circumstances.

4. A general pervasive mood of unhappiness or depression.
5. A tendency to develop physical symptoms or fears associated with personal or school problems (Code of Federal Regulations, title 34, Section 300.8(c)(4)(i), 2008; Maanum, 2009).

The ED criterion does not facilitate providing services for a broad range of students with SEBC, but rather for only those students with significant and chronic problems. Because the term SEBC captures a broader range of difficulties and challenges, it is necessary to study the process of screening to ensure that a range of problems is identified. Throughout this paper SEBC will be used except when summarizing research that may have used a different term (such as EBD for emotional and behavioral disorders); the term used in the original research will be used in this document.

Typically students with ED are seen as having either internalizing or externalizing disorders. Internalizing disorders include conditions of disordered moods or emotions, while externalizing disorders include conditions of dysregulated behaviors (Kovacs & Devlin, 1998). Internalizing disorders are associated with over controlled behaviors. Symptoms are covert, internally directed, and less implicit than externalizing symptoms, making it difficult for practitioners to understand, notice, and screen for internalizing disorders (Reynolds, 1990). Examples of such behaviors include withdrawal, fear, inhibition and anxiety; depressive and anxiety disorders typically constitute internalizing disorders (Kovacs & Devlin, 1998).

In contrast to the covert nature of internalizing disorders, externalizing disorders tend to be more outwardly expressed (Reynolds, 2009). Behaviors associated with externalizing disorders are under-controlled, disinhibited, aggressive, and antisocial (Kovacs & Devlin, 1998); examples of such behaviors include noncompliance, defiance and aggression (Lane, Wehby, &

Barton-Arwood, 2005). Both internalizing and externalizing behaviors are burdensome to a student's emotional, social and academic well-being; however, because externalizing behaviors are disruptive and attention seeking in nature, teachers tend to take more frequent notice of them (Lane, Parks, Kalberg, & Carter, 2007).

Outcomes for Students with SEB

A full description of the negative outcomes associated with students who have SEBC is beyond the scope of this project; however, research suggests that these students often generally have negative educational outcomes. About 10-15% of students are considered at risk for developing a serious emotional or behavioral disorder (Walker, Cheney, Stage, & Blum, 2005), and 2-20% will actually develop one (Kauffman & Brigham, 2009). Students with EBD have difficulty maintaining and keeping friendships (Sabornie, Kauffman, & Cullinan, 1990; Walker, 1998) and forming positive relationships with their teachers (Schilling, 2009; Walker, 1998). They also tend to experience less academic success than any of their peers (Landrum, Tankersley, & Kauffman, 2003), as their academic progress tends to decline or remain stable over time (Lane, Kalberg, Lambert, Crnabori, & Bruhn, 2010). Only 40.1% receive their high school diploma, and the dropout rate for EBD students is 51%, which is the highest dropout rate of any educational disability group (U.S. Department of Education, 2002). Students with EBD are likely to miss school or receive suspension from school (Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005), experience negative employment outcomes (Bullis & Yovanoff, 2006), and become consumers of community resources such as welfare, mental health, substance abuse, or juvenile justice services (Landrum et al., 2003).

According to Ronnes and Hoagwood (2000), 70-80% of students who require mental health services receive them within a school setting. Because schools have become a primary

source of youth mental health services, schools have additionally become an important environment where the identification of students with SEBC takes place. Historically, students have been identified and referred for interventions after they have already demonstrated significant academic failure or negative outcomes (Horner, Todd, Lewis-Palmer, Irvin, Sugai, & Boland, 2004). To mitigate or even avoid such outcomes, at-risk students need to be identified in a timely manner so that they can benefit from interventions and services before they develop a disorder and difficult behaviors become entrenched. It is thus vital for educators to become knowledgeable about effective and timely identification methods.

Positive Behavior Support and Universal Screening

As opposed to utilizing the wait-to-fail approach where students are not identified until they have manifested significant needs, school wide screening provides a way to identify students who are at risk for SEBC and connect them with resources they need in a timely manner (Glover & Albers, 2006). Some schools have adopted the Positive Behavior Support (PBS) model as a way to provide early intervention and prevention services. This model includes a multitiered system of screening and intervention to identify and address social, behavioral, and emotional problems at different levels of intervention (Lane, Oakes, & Menzies, 2010).

Within the PBS model, students are identified as needing services in one of three tiers that align their needs to the appropriate supports or interventions provided by the school (Lane, Oakes, et al., 2010; Walker, Horner, Sugai, Bullis, Sprague, Bricker, & Kaufman, 1996). The first tier of this model is called primary prevention or universal support. Within this tier supports are designed to meet the needs of the entire school population. For example, some schools may implement assemblies where all students are taught behavioral expectations and are consistently and frequently reinforced for demonstrating positive behaviors (Lane, Oakes, et al., 2010).

Generally 80% of students will satisfactorily respond to universal supports and will not require any further intervention (Sugai & Horner, 2006).

Tier two and three interventions are designed to meet more specific needs of students, and within these tiers student progress is monitored to determine the success of the interventions (Lane, Oakes, et al., 2010). The second tier of the PBS model is called secondary intervention. Within this tier supports are designed to meet the needs of students at-risk for developing emotional, behavioral, or academic problems. About 10-15% of a school population will require services at this level (Sugai & Horner, 2006; Walker et al., 2005). Examples of secondary supports are small group interventions for students with similar problems such as social skills training or anger management groups (Kalberg, Lane, & Lambert, 2010; Lane, Oakes, et al., 2010). The third tier is called tertiary intervention or comprehensive support. Students categorized within this tier comprise about 5% of a school population (Sugai & Horner, 2006). This level is usually reserved for students who manifest significant need and require individualized and comprehensive on-going support services. Examples of these support services include wraparound services, intensive familial supports, detailed behavioral contracts, focused social skills instruction, and functional behavioral assessment (Young, Caldarella, Richardson, & Young, 2011; Walker et al., 1996).

The implementation of timely and appropriate school-based prevention and intervention services (such as PBS and universal screening) is vital to help at-risk students, because after SEB has fully developed students become more resistant to interventions (Lane, Kalberg, et al., 2010; Walker, 1998). Screening is especially important, because it provides a means of identifying the individual needs of students, and matching them to appropriate services at tiers two or three (Young, Sabbah, Young, Reiser, & Richardson, 2010). Utilizing early treatment and intervention

services has also been shown to reduce teacher strain and improve academic success for students (Allen-Deboer, Malmgre, & Glass, 2006); furthermore, academic improvement has been shown to yield to higher self-esteem and greater future employment prospects (Hazell, 2007).

Identification Problems

While research has made it clear that students with behavioral and emotional disorders are a considerable concern, the identification of students with SEBC in schools is not being conducted sufficiently. Fewer than 1% of the school age population is classified as having a behavioral or emotional disorder and served under the IDEA (U.S. Department of Education, 2009; Wagner et al., 2005), yet between 2% and 20% of students will develop an emotional or behavioral disorder (Kauffman & Brigham, 2009). Surely up to 20% of these students will not require special education, but it is likely that more of them would benefit from receiving services that address their social, emotional, and behavioral concerns. The implementation of PBS and universal screening can fill that gap, allowing for more students with SEBC to receive support.

Evidence suggests that males and females tend to be identified for SEBC disproportionately. Males are identified much more frequently than females (Young, Sabbah, et al., 2010), and this finding has been supported both within and across cultures (Beaman, Wheldall, & Kemp, 2006, 2007). According to Wagner (2005), males constitute nearly 80% of the students who are classified as ED, and another study found that the proportion of male to female students identified by their teachers as at-risk for an emotional or behavioral disorder was 3:1 (Young, Sabbah, et al., 2010). Additionally, there are more males than females who participate in special educational services, with males comprising the majority of the special education recipients (U.S. Department of Education, 2002; Wagner et al., 2005; Young, Sabbah, et al., 2010).

Reasons for Disproportionate Identification

Even though clear gender differences exist in the number of students identified as having SEBC, the reason for the disproportionate identification is not clear. It is not known whether disproportionate identification of male to female students is due to an actual higher incidence of males who have SEBC, or if it is due to teachers relying on gender biases and stereotypes to make their decisions in the screening process (Caldarella, Shatzer, Richardson, Shen, Zhang, & Zang, 2009). There may be other reasons for the disproportionate ratios, which have not been discussed in the research literature. A few reasons for the disproportionate representation of male students identified with SEBC are discussed below. The reasons discussed include: gender characteristics, how males and females manifest disorders, and teachers' prior referral experiences

Gender characteristics. Some research that suggests that gender plays a significant role in the ways that males and females express disorders throughout childhood and adolescence. For example, it has been shown that girls and boys manifest aggression differently during early and middle childhood. Within their same-gender peer groups, girls are more likely to engage relational aggression whereas boys are more likely to engage in physical aggression. In other words, girls are more likely to harm others by damaging or controlling relationships, whereas boys are more likely to use physical damage or the threat of physical damage to cause harm (Crick & Zahn-Waxler, 2003).

There is also research that suggests that teachers' perceptions of how males and females behave may contribute to gender differences in referrals. For example, one study found that elementary school teachers referred more boys than girls for ADHD due to differences in their perceptions of how they behaved. In this study teachers were presented with different profiles of

students with ADHD that varied only by student gender. These teachers referred more boys than girls regardless of the profile they were presented with, indicating that a gender bias in teacher perception of student behavior influenced the referral process (Scuitto, Nolfi, & Bluhm, 2004).

Teachers are also more likely to notice and view externalizing behaviors as more serious when compared to internalizing behaviors, and boys are more likely to display externalizing behaviors (Kokkinos, Panayiotou, & Davazoglou, 2004; Lane, Parks, et al., 2007; Zahn-Wexler, Shirtcliff, & Marceau, 2008). Externalizing behaviors are more noticeable to teachers because these behaviors are disruptive and interfere with the instructional process (Kokkinos et al., 2004; Lane, Parks, et al., 2007). Internalizing behaviors on the other hand tend to be less noticeable and disruptive (Lane, Kalberg, et al. 2010), and typically girls outnumber boys in internalizing disorders (Friedrich, Raffaele Mendez, & Milhalas, 2010; Huberty, 2008). For example, one study found that adolescent girls were three to four times more likely than adolescent boys to self-report depressive (or internalizing) symptoms (Bailey, Zauszniewski, Heinzer, & Hemstrom-Krainess, 2007). In contrast, Young, Sabbah, et al. (2010) found that the ratio of male to female students nominated by their teachers as at-risk for EBD was 3:1 for both internalizing and externalizing behaviors. This finding contradicts the idea that boys are more likely to display externalizing concerns and girls internalizing concerns; however, it does support the research literature in that male students are more likely to be nominated for SEBC.

There are several possible reasons for why girls tend to display internalizing behaviors and why boys tend to display externalizing behaviors. Gender socialization practices provide one explanation for this phenomenon. Boys are socialized with an emphasis on self-assertion and independence as well as an underemphasis on interpersonal sensitivity, empathy, and self-regulation; this may make boys more vulnerable to externalizing problems (Leadbeater,

Kuperminc, Blatt, & Hertzog, 1999). Girls on the other hand are more likely to be socialized for self-regulation and sensitivity to interpersonal concerns, thus increasing their vulnerability to internalizing problems (Gore, Aseltine, & Colten, 1993; Leadbeater, Blatt, & Quinan, 1995). In adolescence, girls also report having higher levels of interpersonal vulnerability than do boys, which is also associated with internalizing problems. Those with interpersonal vulnerabilities are concerned with maintaining relational harmony and have difficulty expressing their anger explicitly (Leadbeater et al., 1995; Leadbeater et al., 1999).

Disorder manifestation. A second reason why males are identified more frequently with SEBC than females may be due to the different ways males and females manifest their disorders. For example, one study found although boys and girls had similar scores on the Beck Depression Inventory, they differed in their expression of the disorder. Boys were found to show symptoms of morning fatigue, depressed morning mood, and adhedonia, while girls showed symptoms of body image dissatisfaction, guilt, self-blame, self-disappointment, feelings of failure, concentration problems, difficulty working, sleep problems, overall fatigue, and health worries (Bennet, Ambrosini, Kudes, Metz, & Rabinovich, 2005). Another study similarly found that girls were more likely to self-report internalizing and negative self-esteem issues than boys on the Children's Depressive Inventory (Bailey et al., 2007).

Another example which illustrates this point comes from empirical findings about ADHD referrals, which suggest that teacher perceptions of male and female behavior may contribute to gender differences in ADHD referrals (with the majority being boys) (Scuitto et al., 2004). Girls with ADHD tend to exhibit more inattentive behavior, while boys tend to exhibit more disruptive behavior (Friedrich et al., 2010). Disruptive behavior is more noticeable to teachers because it interferes with the instructional process, which likely causes teachers to more frequently identify

and refer boys for ADHD consultation or evaluation. Additionally, because girls are more likely to have an internalizing disorder, the diagnosis of ADHD can become complicated if a girl has a comorbid internalizing disorder. In this situation the internalizing disorder is more likely to be diagnosed than the underlying ADHD (Quinn, 2005).

The differences in the way that both depression and ADHD are expressed in these examples suggest that teacher perceptions of how males and females manifest symptoms of these disorders may influence the screening and referral process; this may be true for other disorders as well. Kokkinos et al. (2004) found that teachers are more likely to view non-stereotypical behaviors as more serious, such as a male with an internalizing disorder or a female with an externalizing disorder. Thus students who have gender atypical disorders that violate teacher expectations may be more likely to be nominated, providing support for the idea that teachers may be using gender stereotypes when nominating students for interventions. This finding also provides support for disproportionate identification, because not only are teachers more likely to nominate males due to their disruptive behavior, but they are also more likely to nominate them for non-traditional gender behaviors such as crying or being overly sensitive (Kokkinos et al., 2004; Lane, Parks, et al., 2007). Similarly, females with externalizing disorders are more likely to be viewed as having a more serious problem than males; however, girls are less likely than boys to have an externalizing disorder (Zahn-Wexler et al., 2008).

Past experience. Some research has found that teachers' referral decisions may be influenced by their previous referral experience. For example, two studies evaluated elementary school teachers' beliefs about which children needed to be referred to mental health services available in their schools. It was found that teachers were more likely to refer a hypothetical student described in a vignette if they had previously referred a student with similar concerns

(Green, Clopton, & Pope, 1996; Percy, Clopton, & Pope, 1993). Because teachers tend to refer boys more frequently than girls (Lloyd et al., 1991; Wagner et al., 2005; Young, Sabbah, et al., 2010), they may be more likely to continue to make referrals for boys if their past referral experience has an influence on their current referral decisions.

Teacher Role in SEBC Screening

While both teachers and administrators can complete screening nomination forms (Lane, Parks, et al., 2007), the majority of special education referrals come from teachers, particularly from female teachers (Donovan & Cross, 2002; Green, Shriberg, & Farber, 2008; Lloyd, 1991; McIntyre, 1988). This is because teachers are in a unique position to observe students on a daily basis in relation to other students and make referrals or recommendations for them. Unlike the referral and identification process for intellectual disabilities and specific learning disabilities, the identification of EBD relies more on teacher perceptions of students than on objective measures such as test scores. This is concerning because disproportionate representations in special education are likely due to disabilities that rely on teacher judgment for referral, and SEBC referrals rely heavily on teacher judgment (Hibel, Farkas, & Morgan, 2010).

Teacher perceptions of students with SEBC tend to vary by student gender (Caldarella et al., 2009; Kokkinos et al., 2004). Regardless of the type of disorder a student has, teachers have been shown to pay more attention to and nominate male students (Hardman, 2013; Percy et al., 1993; Young, Sabbah, et al., 2010). A possible explanation for this phenomenon is that teachers are relying on their pre-existing attitudes, including gender biases and stereotypes when making referral and screening nomination decisions. Further research is needed to evaluate if pre-existing attitudes of teachers are in fact influencing the referral and nomination process for students at-risk for SEBC, which is the intent of this study.

Secondary School Population

As a part of the IDEA, Early Intervening Services (EIS) regulation holds that Local Education Agencies (LEAs) provide preventative services to children who have not been identified to receive special education services but may be experiencing SEBC. This regulation works in conjunction with the Response to Intervention (RTI) model and supports training in research-based behavioral interventions (U.S. Department of Education Office of Special Education Programs, 2007). Before these services can be provided, there is first a need to identify students who require them; a valid and reliable identification procedure that matches the developmental needs of students is needed to facilitate this process.

Most educators and researchers have focused on identification methods at the elementary school level, while identification methods for students with SEBC in secondary settings are still being evaluated (Lane & Carter, 2006; Young, Sabbah, et al., 2010). It has been shown that most mental health disorders have an early adolescent onset (Kessler, Berglund, Demler, Jin, & Merikangas, 2005) and that many students become vulnerable to developing EBD during the middle school years (6th-8th grade) (Lane, Parks, et al., 2007). It is therefore vital that early identification and screening procedures that are empirically supported for adolescents become established in secondary settings.

Purpose of the Study

Students at-risk for developing SEBC are likely to experience a variety of negative outcomes both within and beyond the school setting if they do not receive timely and appropriate interventions (Lane, Parks, et al., 2007). Universal, school-wide screening has been shown to be highly effective in the SEBC identification process (Lane, Oakes, et al., 2010); however, limited

attention has been given to the development of screening tools for use in secondary settings (Lane, Wehby, Robertson, & Rogers, 2007).

In order to develop and implement a screening measure for use in secondary settings, various factors that influence the reliability of scores and evidence of validity of the measure need to be evaluated. One factor that has received limited attention is the role that student gender plays in the process of screening for students at risk for SEBC (Young, Sabbah, et al., 2010). Male students tend to be more frequently identified than female students (Kokkinos et al., 2004; Lane, Parks, et al., 2007), and the reason for this disproportionate identification is not clear (Green et al., 1996). Teachers play a significant role in the screening process (Hibel et al., 2010), and it is possible that they are relying on their gender biases and stereotypes during the identification process. There is thus a need to determine if secondary education teachers make SEBC referral decisions differently based on gender, which is the primary aim of this study.

This study additionally sought to evaluate other variables that may have an influence on disproportionate identification. The issue of disproportionate identification is complex, and it is important to consider a variety of factors that may be contributing to this matter in addition to student gender. The other variables evaluated included: teacher experience, teachers' confidence in the mental health services available at their schools, teachers' perceived severity of problematic behaviors, and teacher gender. The researchers evaluated teacher experience, because some research has found that teachers' referral decisions are significantly influenced by their prior referral experiences (Green et al., 1996; Percy et al., 1993). Confidence in services available was selected as a variable, because a study conducted by Schilling (2009) found that some teachers felt that the professionals to whom they referred their students to did not adequately serve their students for a variety of reasons. Perceived severity was evaluated,

because SEBC referrals rely heavily on teacher perception (Hibel et al., 2010), and the researchers were interested to see if teachers' perceptions (and thus referral decisions) varied by level of perceived concern. Lastly, teacher gender was evaluated, because the majority of referrals to special education are from female teachers (Green, Shriberg, & Farber, 2008; McIntyre, 1988). In culmination these studies suggest that prior experience, perceived severity, confidence in services available, and teacher gender are all variables that may influence which students are referred for SEBC.

Results of this research will seek to inform a larger agenda, which is to develop a universal screening system that will help identify students who are at risk for SEBC in secondary settings. Findings from this study will be used to inform the interpretation process of the screening instrument. For example, if it is found that disproportionate identification is due to teachers relying on gender biases and stereotypes during the identification process, teachers will be encouraged to become better informed about how males and females manifest their disorders differently, with the hopes of yielding more accurate screening results in the future.

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APPENDIX B: Consent Form

Consent to Participate in Research:

Our research team at Brigham Young University is developing a screening instrument that can be used by teachers to identify adolescent students who may be at risk for social, emotional, or behavioral concerns (SEBC). Early screening helps school teams to identify and serve students before problems become severe. Your completion of this questionnaire will be especially helpful in helping our research team to develop this instrument.

Erin Klein, a school psychology graduate student at Brigham Young University in Provo, Utah is completing this research; she will be working under the supervision of associate professor, Ellie Young, PhD. If you have concerns, you may contact Erin at (925) 683-3388/ eaklein@yahoo.com or Ellie at (801) 422-1593/ ellie_young@byu.edu. You may also contact Ellie's office at 340-P MCKB, Brigham Young University, Provo, UT 84602. If you have questions regarding your right as a participant in this study, you may also contact Lane Fischer, PhD, IRB Chair, Brigham Young University at (801) 422-8293 or 340 MCKB, Brigham Young University, Provo, UT 84602.

It will take you approximately 10-15 minutes to answer the questions that follow. Your answers will remain confidential. The information you provide will be stored and safeguarded in a locked filing cabinet in professor Ellie Young's office at Brigham Young University. Only Erin Klein, Ellie Young, and others helping with research will have access to your responses.

Because the questions that follow will ask you to reflect on your experiences with students with social, emotional, or behavioral concerns, you may experience some slight emotional discomfort. The risk is considered to be minimal; however, your reactions may vary depending on experiences. Your participation is voluntary. Should you feel uncomfortable with

the questions, you may choose to stop at any time. Your consent to participate is implied by the completion of this questionnaire.

For participating in this study you can enter into a drawing to win a \$100.00 visa gift card or an iPad. Please complete the “contest form” and return it with the testing materials if you wish to be entered. You have a .2% chance of winning the iPad and a 2% chance of winning a Visa gift card.

Thank you for your help with this important research.

Erin Klein

APPENDIX C: Contest Form

INSTRUCTIONS: Please complete the following information to be entered to win a \$100.00

Visa gift card or an iPad.

Name: _____

Phone Number: _____

APPENDIX D: Demographic Questionnaire Needed for Research Purposes

INSTRUCTIONS: Please complete the following information.

1. Years of teaching experience: _____
2. Identify your gender:
 - a. Male
 - b. Female
3. Identify your age: _____
4. Identify your ethnicity:
 - a. American Indian of Alaska Native
 - b. Asian or Pacific Islander
 - c. Black or African American
 - d. Hispanic or Latino
 - e. White
 - f. Other _____
5. Select your education level:
 - a. BA/BS
 - b. MA/MS
 - c. Specialist
 - d. Doctorate
 - e. Other: _____
6. Grade level you are now teaching: _____
7. Previous grade level(s) taught: _____
8. Identify the subject area that you teach:
 - a. Math
 - b. English
 - c. History/ Economics/ Government
 - d. Science
 - e. Physical Education
 - f. Visual or Performing Arts
 - g. Language
 - h. Other _____

APPENDIX E: Externalizing Vignette

INSTRUCTIONS: Please read the following scenario. On the following two pages, you will be asked to answer questions about the scenario.

Alex is a girl (boy) enrolled in your class who has become quite a challenge for you this year. She (he) has a short attention span and easily becomes distracted. She (he) also enjoys distracting others during instruction time. For example, you have noticed her (him) making excessive noises during quiet activities. She (He) has promised to improve her (his) behavior, but she (he) continues to pester her (his) peers when she (he) thinks you aren't looking. Alex is also always getting into trouble for teasing other students and for using foul language. When she (he) is confronted about her (his) behavior, she (he) becomes argumentative.

APPENDIX F: Internalizing Vignette

INSTRUCTIONS: Please read the following scenario. On the following two pages, you will be asked to answer questions about the scenario.

Taylor is a boy (girl) in your class. He (She) tends to get nervous before he (she) takes exams or gives class presentations, and this is largely due to his (her) fear of doing something wrong. Whenever you give Taylor constructive feedback on his (her) assignments, he (she) becomes upset and views the feedback as a sign of failure; he (she) usually makes comments such as, "I'm so stupid" or "I can't do anything right". Taylor generally tends to withdraw from others and doesn't have many friends. You have tried to get him (her) to work with other students on group assignments, but he (she) refuses to because he (she) believes the other students don't like him (her), and he (she) fears their rejection.

APPENDIX G: Questionnaire

PART 1

INSTRUCTIONS: Please answer the following questions based on the scenario you just read about. Circle your answer.

1. How likely are you to refer this child to the school psychologist, school counselor or other school personnel for consultative mental health services?

1	2	3	4	5
Very unlikely	Unlikely	Neither unlikely nor likely	Likely	Very Likely

2. In the past three years have you referred a child who fits this description to the school psychologist, school counselor or other school personnel for consultative mental health services?

- a. Yes
b. No

If yes, why?

If no, why?

3. If referred, my school's mental health services personnel would adequately meet the needs of this student.

1	2	3	4	5
Very unlikely	Unlikely	Neither unlikely nor likely	Likely	Very Likely

PART 2

INSTRUCTIONS: Please complete the following BASC-2-BESS screener on the following page.