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EXAMINING TEACHERS' DECISIONS IN REGARD TO REFERRAL AND PLACEMENT*

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ABSTRACT

One of the most important factors that can influence identification of students with disabilities is teachers' decisions to refer a student for special education. Teachers' beliefs about inclusion and student characteristics (students' gender and problem type experienced by the students) can influence teachers' decision making in special education. The purpose of this study was to examine differences in teachers' decisions in regard to referral and placement. We developed four cases in which we varied student's gender and problem type (i.e. academic problems and behavioral problems). These cases include: (1) a male student exhibiting academic problems; (2) a female student exhibiting academic problems; (3) a male student exhibiting behavioral problems; and (4) a female student exhibiting behavioral problems. This study included data analysis from 264 elementary school teachers from one town of a metropolitan city in the East Marmara region of Turkey. Teachers responded to two close-ended questions in regard to referral and placement after reading each case scenarios. Results indicated a significant difference in teachers' decisions based on the type of problem a student experiences. Teachers were more likely to make a decision to refer a student with behavioral challenges for special education evaluation and place a student with behavioral challenges in a special education classroom. There was no difference in teachers' decisions based on students' gender. Limitations and implications for future research were discussed.

* Footnote: This article is based on a doctoral dissertation entitled "Teachers' Sense of Efficacy and Their Decisions in Regard to Referral and Placement", written by Ayşe Dilşad Yakut and supervised by Alexandra A. Lauterbach (Ph.D) at the University of Massachusetts Amherst.

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STRUCTURED ABSTRACT

Purpose of the study: The purpose of this study was to examine differences in teachers' decisions in regard to referral and placement. This study is guided by two questions: (a) is there a difference in teachers' decisions to refer a student based on the student's gender and the problem type? (b) is there a difference in teachers' decisions to place a student in a special education classroom based on the student's gender and the problem type?

Background: Referral is an important component in determination of eligibility for special education services (Buckrop, Roberts, LoCasale-Crouch, 2016). Classroom teachers play a pivotal role in determining students' eligibility for special education services as most referrals for special education evaluation are initiated by classroom teachers (Buckrop et al., 2016) and teachers act as the main informants about a child's behaviors, academic performance, and progress in classrooms (Zirkel, 2015). A teacher's accuracy in identifying the problem a child is experiencing is critical in providing appropriate services and placement (Schwartz, Wolfe, & Cassar, 1997). Accuracy starts with the individual making a referral (Schwartz et al., 1997) and most referrals for special education evaluation are initiated by classroom teachers (Buckrop et al., 2016). Banks, Shevlin, & McCoy (2012) indicated teachers over or under identify students when certain student characteristics influence teachers' decisions. Two of these student characteristics are the type of difficulty a student experience, what we refer to as "problem type," and students' gender. Understanding how these variables influence a teacher's decisions and beliefs can lead better outcomes for students.

Methods: We developed four cases in which we varied student's gender and problem type (i.e. academic and behavioral). The cases included: (1) a male student exhibiting academic difficulties; (2) a female student exhibiting academic difficulties; (3) a male student exhibiting behavioral challenges; and (4) a female student exhibiting behavioral challenges. Teacher participants responded to two close-ended questions after reading each case. This study included data analysis from 264 elementary school teachers with a response rate of 85.2% from one town of a metropolitan city in the East Marmara region of Turkey.

Data Analysis: Descriptive statistics were used to examine teachers' decisions in regard to referral and placement in terms of frequencies and percentages. We also used a one sample non-parametric chi-square test to examine whether teachers' decisions were different based on students' gender and the problem type experienced by the students in the cases.

Results: Teachers ($n = 264$) responded to two close-ended questions after reading each case about referral and placement. Case 3 (67.4%) received the largest percentage of teachers deciding to refer, followed by Case 4 (63.3%), Case 1 (32.2%), and Case 2 (28.4%), respectively. Following the same pattern, Case 3 (40.2%) received the largest percentage of teachers deciding to place the student in a special education classroom, followed by Case 4 (36.4%), Case 1 (24.6%), and Case 2 (22.7%), respectively.

There was no significant difference in responding when teachers made a decision to refer a male student and a female student for special education. Similarly, there was no significant difference when teachers made a decision to place a male student and a female student in a special education classroom.

There was a significant difference in responding when teachers made a decision to refer a student with academic challenges and a student with behavioral challenges. Similarly, there was a difference in responding when teachers made a decision to place a student with academic challenges and a student with behavioral challenges. Teachers were more likely to make a decision to refer a student with behavioral challenges for special education evaluation and place a student with behavioral challenges in a special education classroom.

Conclusion: The results of this study indicated that student characteristics of the problem type (i.e. behavioral challenges) led teachers to make more decisions in regard to referral and placement. Research is well established that teachers' perceptions about their roles and responsibilities can influence their practices while working with students with disabilities, which might influence teachers' decisions in regard to referral (Jordan, Lindsay, & Stanovich, 1997). Future research should be enhanced by exploring teachers' beliefs about the problem type. This study was unique in terms of methodology, because no researchers have used case methods to examine special education decision making process in Turkey. We used case scenarios that included descriptive information about a student who is suspected for having a disability. Future researchers should use cases that include culturally relevant data to examine whether teachers' decisions are influenced by multiple sources of data.

Keywords: referral, placement, students at risk, academic problems, behavioral problems.

ÖĞRETMENLERİN ÖZEL EĞİTİME GÖNDERME VE YERLEŞTİRME KARARLARININ İNCELENMESİ

ÖZ

Öğretmenlerin özel eğitime gönderme kararları, yetersizliği olan öğrencilerin tanılanmasını etkileyen en önemli faktörlerden biridir. Öğretmenlerin kaynaştırmayla ilgili algıları ve öğrencinin özellikleri (öğrencinin cinsiyeti ve öğrencinin yaşadığı problem türü) öğretmenlerin özel eğitimle ilgili kararlarını etkileyebilir. Bu çalışmanın amacı, öğretmenlerin özel eğitime gönderme ve özel eğitim sınıfına yerleştirme kararlarındaki farklılıkları incelemektir. Öğrencinin cinsiyetinin ve yaşadığı problem türünün (akademik problem veya davranış problemi) değiştirildiği dört örnek olay kullanılmıştır. Bu örnek olaylar: (1) akademik problem sergileyen bir erkek öğrenci; (2) akademik problem sergileyen bir kız öğrenci; (3) davranış problemi sergileyen bir erkek öğrenci; ve (4) davranış problemi sergileyen bir kız öğrenci. Bu çalışma, Türkiye'nin Doğu Marmara bölgesindeki bir metropolün bir ilçesinde görev yapan 264 sınıf öğretmenin veri analizini içermektedir.

Öğretmenlerden dört örnek olayı okuması ve iki kapalı uçlu soruya cevap vermesi istenmiştir. Bulgular, öğretmenlerin öğrencinin yaşadığı problem türüne göre özel eğitim değerlendirmesine gönderme ve özel eğitim sınıfına yerleştirme kararlarında anlamlı bir farklılık olduğunu göstermiştir. Ayrıca, öğretmenlerin davranış problemi olan öğrenciyi özel eğitim değerlendirmesi için gönderme ve davranış problemi olan öğrenciyi özel eğitim sınıfına yerleştirme kararı verme eğiliminde olduğu görülmüştür. Öğretmenlerin, özel eğitim değerlendirmesine gönderme ve özel eğitim sınıfına yerleştirme kararlarında öğrencinin cinsiyetine göre bir farklılık bulunamamıştır. Araştırmanın sınırlılıkları ve gelecek araştırmalara yönelik öneriler tartışılmıştır.

Anahtar Kelimeler: özel eğitime gönderme, yerleştirme, risk altındaki öğrenciler, akademik problemler, davranış problemleri.

Introduction

In Turkey, the number of students identified with disabilities has steadily increased since 2010 (National Education Statistics [Milli Eğitim İstatistikleri], 2016), due to a heightened focus on protecting the rights of individuals with disabilities (The Decree Law No: 573 [573 Özel Eğitim Hakkında Kanun Hukmünde Kararname], 1997; The Special Education Services Regulation [Özel Eğitim Hizmetleri Yönetmeliği], 2018). In most years, male students are identified for special education more frequently than female students (National Education Statistics [Milli Eğitim İstatistikleri], 2016). The phenomena of a group being over- or underrepresentation in a disability category in comparison to the group's proportion in the overall population is referred to as disproportionality (Donovan & Cross, 2002). Disproportionality, either by inappropriate identification or the assignment of an inappropriate special education label, can have long-lasting harmful effects. These effects include the improper use of services and supports, limiting student's access to rigorous curriculum, lowering expectations for students, diminishing student academic and post-secondary opportunities, and exposing students to social stigma (Harry & Klingner, 2006; Losen & Orfield, 2002; National Research Council, 2002).

Referral is an important component in determination of eligibility (Buckrop et al., 2016). Inaccuracy in referral can lead to disproportionality (Banks et al., 2012). Classroom teachers play a pivotal role in determining students' eligibility for special education services as most referrals for special education evaluation are initiated by classroom teachers (Buckrop et al., 2016) and teachers act as the main informants about a child's behaviors, academic performance, and progress in classrooms (Zirkel, 2015). Given the steady and potentially disproportionate growth of special education in Turkey, understanding variables that influence a teacher's decision to refer a student for special education evaluation and teachers' beliefs about where a student should be placed is critical.

Models of Special Education

There are a number of different models used to identify and provide services to students with special needs (Smeets & Roeleveld, 2016). One commonly used model, referred to in the literature as the traditional model, involves three-stages: first, the student is referred by their classroom teachers for special education evaluation; second, the student is evaluated; and third, the student is identified as eligible for special education services (Gresham, 2007). With the traditional model, after a student is found eligible students are placed along a continuum of services, increasing in the intensity of services provided. These placements include: regular classroom, resource room, self-contained class, special day school, residential school, and hospital (Fuchs, Fuchs, & Stecker, 2010). Schools follow a

traditional model of identification, where the classroom teacher is responsible for initiating referral process in Turkey.

A second commonly used model, the response to intervention (RTI) model, uses a team-based approach to referral in which the team of educators use scientifically based interventions to monitor students' progress before they are referred for special education services (Hoover, Baca, Wexler-Love, & Saenz, 2008). Depending on the model of RTI, placement is either: a) identical to the traditional model, except the regular classroom includes two tiers of support, or b) all of the more segregated settings, from the resource room to the hospital, are replaced with a third tier (Fuchs, et al., 2010).

Factors Influencing Teachers' Decisions and Beliefs

Regardless of the model used, a teacher's accuracy in identifying the problem a child is experiencing is critical in providing appropriate services and placement (Schwartz, Wolfe, & Cassar, 1997). Accuracy starts with the individual making a referral (Schwartz et al., 1997) and most referrals for special education evaluation are initiated by a classroom teacher (Buckrop et al., 2016). Banks et al. (2012) indicated a teacher over or under identifies a student when certain student characteristics influence a teacher's decision. Inaccuracy in this process can lead to disproportionality in certain types of disability categories. Studies of disproportionality have examined high-incidence disability categories such as learning disabilities, mild intellectual disability, emotional disabilities, and speech-language impairments; these categories include the majority of students who receive special education services in the USA (Sullivan, 2011). Factors that are irrelevant to a student's suspected disability influence a teacher's decision about referral (Schwartz et al., 1997).

Blanchett (2006) suggested the referral process can be subjective when individuals' judgements are used for determining eligibility. This subjectivity can arise for many reasons. First, factors that influence a teacher's decision to refer or not refer a student might vary because of the teacher's ability to overcome difficult situations (e.g. Bandura, 1977). Furthermore, for a student's placement in a regular inclusive classroom to be successful, a teacher needs to feel confident to teach a student with a disability in the classroom (Sharma, Forlin and Loreman, 2008). Second, teachers' decision-making process is complex and might be influenced by teachers' beliefs (Clark & Peterson, 1986). For example, teachers' beliefs about inclusion are related to their implementation of inclusive classroom practices and their willingness to teach students with disabilities in their classrooms (Jordan, Schwartz, McGhie-Richmond, 2009). Lastly, teachers' abilities to accurately assess a child's performance can vary based on teacher characteristics (e.g. perceptions) and student characteristics (Sudkamp, Kaise, & Moller, 2012). Two of these student characteristics are the type of difficulty a student experiences, what we refer to as "problem type," and a student's gender. Understanding how these variables influence teachers' decisions and beliefs can lead to less disproportionality and therefore better outcomes for students.

Problem type. Teachers' perceptions about the problem type can influence teachers' classroom practices and student outcomes (Charles & Senter, 2005). Abidin and Robinson (2002) indicated teachers' judgments about the presence of academic and/or behavioral problems of students are the best predictors of teachers' decisions in regard to referral. More specifically, reading difficulties (Bramlett, Murphy, Johnson, Wallingsford, & Hall, 2002; Lane, Mahdevi, & Borthwick-Duffy, 2003; Lane, Pierson, Robertson, & Little, 2004) and writing difficulties (Lane et al., 2003; Lane et al., 2004) were predominantly identified as academic referral concerns. In addition, defiant problems including insubordination, disrespect, and noncompliance are major behavioral concerns may lead to the referral of students (Briesch, Ferguson, Volpe, & Briesch, 2013). In addition, teachers' perceptions about problem type were related to teachers' judgements about the appropriateness of regular education settings (Soodak & Podell, 1993). Considering the role of problem type in the referral process, examining problem type as a factor influencing teachers' decision making is important.

Gender. Disproportionality studies indicate students' gender is implicated in the identification and/or placement of students. There is evidence that more boys than girls are identified as having special educational needs for certain types of disability categories (Coutinho & Oswald, 2005). While many factors can be related to the disproportionality, substantial research has indicated bias particularly in referral (Wehmeyer & Schwartz, 2001). Gender is one the most frequently examined factors used in investigation of perception bias in educational research (e.g. Skiba, Michael, Nardo, & Peterson, 2002). For example, Abidin and Robinson (2002) examined records of students who were referred for special education evaluation. Results indicated boys were referred two times more than girls. While girls were referred for internalizing problems, boys were referred for externalizing problems (i.e. overactivity). Considering we see a similar pattern in the identification of students with disabilities in Turkey, examining students' gender as a factor influencing teachers' decision making is important.

Purpose and Research Questions

The purpose of this study is to examine differences in teachers' decisions in regard to referral and placement. This study is guided two questions and two hypotheses. First, is there a difference in teachers' decisions to refer a student based on the student's gender and the problem type? We hypothesize there will be a difference in teachers' decisions to refer a student based on the student's gender and the problem type. Second, is there a difference in teachers' decisions to place a student in a special education classroom based on the student's gender and the problem type? We hypothesize there will be a difference in teachers' decisions to place a student in a special education classroom based on the student's gender and the problem type.

Methodology

Research Design

We used case methods to examine teachers' decisions in regard to referral and placement. Shulman & Colbert (1989) asserted that case methods allow teachers to improve their actions in teaching from different perspectives. Many researchers used cases to examine teachers' suggestions to address students' problems (Soodak & Podell, 1994), teachers' decisions in regard to referral (Meijer & Foster, 1988; Soodak & Podell, 1993; Podell & Soodak, 1993), teachers' placement decisions (Soodak & Podell, 1993). In addition, case methods are valuable to prepare elementary school teachers for the complex teaching situations (Harrington & Garrison, 1992). More specifically, cases that include educational problems and dilemmas can be used to examine teachers' decisions about a particular situation (Butler, Lee, & Tippins, 2006). Teachers' decision making about referral is not directly observable. By giving cases, we examined whether there is a difference in the way teachers responded to the cases based on students' gender and the problem type (academic problems and behavioral problems).

Case Development

Four cases were developed for this study. The cases included: (1) a male student exhibiting academic difficulties; (2) a female student exhibiting academic difficulties; (3) a male student exhibiting behavioral challenges; and (4) a female student exhibiting behavioral challenges. As previous research examining teachers' referral decisions using cases focused on students in second grade (Soodak & Podell, 1993), and students in Turkey are expected to be able to read and write by the end of the first grade, the four cases focused on second-grade students. As research suggests reading difficulties (Bramlett et al., 2002; Lane et al., 2003; Lane et al., 2004), writing difficulties (Lane et al., 2003; Lane et al., 2004), and defiant behaviors including insubordination, disrespect, and noncompliance (i.e. following rules and interacting with others; Briesch et al., 2013; Lane et al., 2003) often lead to referrals, the cases focused on these skills. Participants received the four cases and

answered two questions about whether: (a) they would refer the student for special education evaluation; (b) the student would receive better support in a special education classroom.

To ensure consistency across the cases, the four cases adhered to the following format. The first paragraph explained the participant was a second-grade teacher of a student with either academic or behavioral difficulties. The second paragraph used the name of the student to indicate gender, described a student who was functioning below grade level in either reading and writing or following rules and interacting with others, and gave four specific difficulties the student was experiencing. The third paragraph indicated either: (a) the student did not meet most goals for reading and writing, but did meet expectations following rules and interacting with others and provided two such examples, or (b) the student did not meet most goals for following rules and interacting with others, but did meet expectations for reading and writing and provided two such examples.

Translation. The cases were initially written in English. We used the back-translation technique which is common in cross-cultural translations (Peña, 2007). The first author translated the cases to the target language (Turkish) and a second translator independently translated the target version back to the source language (English). Comparison of two translations indicated there were minor differences in the target translation. The translators worked separately to correct minor differences and reached a consensus. In addition, a bilingual translator verified the translation was accurate and meaningful.

Content validity. To ensure content validity, the first author reviewed laws and regulations related to the referral process in Turkey and consulted with two Turkish school counselors to understand how the referral process works in Turkey. Cognitive interview techniques, widely used in education for instrument development, also provided further validation (Ryan, Gannon-Slater, & Culbertson, 2012). Two cognitive interviews were used to verify the language, review the information in a cultural context, and identify weaknesses in the cases. The cases were revised based on feedback received.

Research Setting

This study was conducted in one city in East Marmara region of Turkey. The city is one of the most crowded cities in Turkey with three million population, of which many are immigrants from other cities of Turkey (Turkish Statistical Institute [Turkiye Istatistik Kurumu, TUIK], 2014). Data indicated the pupil teacher ratio is representative of the average pupil/teacher ratio of Turkey (TUIK, 2014). Moreover, examination of the enrollment rate in elementary school level indicated the city demonstrates very similar patterns with the average enrollment rate.

Referral Process in Turkey. In Turkey, schools follow a traditional model of identification, where the classroom teacher is responsible for initiating the process for deciding whether or not refer students who are suspected of having disabilities and initiating the process. Typically, when a classroom teacher becomes concerned about a student's performance, the teacher can initiate the referral process through the *Educational Evaluation Request Form*. The form must be signed by parents, the school counselor, and the school principal in order to refer the student to the Guidance and Research Center (Special Education Services Regulation, 2018). The Guidance and Research Center is in charge of educational diagnosis and placement of students with disabilities in Turkey (The Special Education Services Regulation, 2018). If a student is found eligible, their placement can be in one of the following: a) a general education classroom; b) a special education classroom; or c) a separate school for students with special needs.

Research Participants

Convenience sampling procedure was used in this study. The target population was general education elementary school teachers in public schools, thus participants had to: (a) be a regular

education teacher and have active working status, and (b) teach from first grade to fourth grade level in a public elementary school. Prior to any data being collected, the study was approved by the Institutional Review Board (IRB). A total of 310 elementary school teachers from 12 public elementary schools were invited to participate in this study, of which 264 participants were included in data analysis. This represented a response rate of 85.2%. Teachers were asked to read four case scenarios and respond to two close-ended questions after reading each case. The frequencies and percentages of the respondents' gender, years of teaching experience, educational degree, and training are arranged in Table 1.

Table 1: Demographic information of the participants

Demographic Variables		%	n	
Gender	Female	69.3	183	
	Male	30.7	81	
Years of teaching experience	1-5 years	1.9	5	
	6-10 years	3.8	10	
	11-15 years	9.5	25	
	16-20 years	27.9	73	
	21 or >	56.9	149	
Educational degree	Undergraduate	81.4	215	
	Master's degree	7.6	20	
	Others	11	29	
In-service training	Yes	Special education	48.9	129
		Classroom management	25	66
		Reading-writing disabilities	8.3	22
		Teaching methods and techniques	39.4	104
		Others	39.4	104
	No	14.4	38	

Note. ($N = 264$).

Data Analysis

We used descriptive statistics to examine teachers' decisions in regard to referral and placement in terms of frequencies and percentages. We also used a one sample non-parametric chi-square test to examine whether teachers' decisions were different based on students' gender and the problem type.

Results

Teachers ($n = 264$) responded to two close-ended questions after reading each case: (a) Would you refer this student to the Guidance and Research Centers for special education? (b) Would this student receive better support in a special education classroom? In each case, the referral decision was scored as 0 for "no referral" and 1 for "referral" and the special education classroom decision was scored as 0 for "no special education classroom placement" and 1 for "special education classroom placement". The sum to the teacher's referral decisions and the sum to the teacher's placement decisions across cases, therefore could each range from 0 to 4. Case 3 (67.4%) received the largest percentage of teachers deciding to refer, followed by Case 4 (63.3%), Case 1 (32.2%), and Case 2 (28.4%), respectively. Following the same pattern, Case 3 (40.2%) received the largest percentage of teachers deciding to place the student in a special education classroom, followed by Case 4 (36.4%), Case 1 (24.6%), and Case 2 (22.7%), respectively. Table 2 and Table 3 displays frequencies and

percentages of teachers' decisions in regard to special education referral and special education classroom placement, respectively.

Table 2: Teachers' referral decisions

	Yes		No	
	%	<i>n</i>	%	<i>n</i>
Case 1 (A male student with academic challenges)	32.2	85	67.8	179
Case 2 (A female student with academic challenges)	28.4	75	71.6	189
Case 3 (A male student with behavioral challenges)	67.4	178	32.6	86
Case 4 (A female student with behavioral challenges)	63.3	167	36.7	97

Note. *N* = 264.

Table 3: Teachers' placement decisions

	Yes		No	
	%	<i>n</i>	%	<i>n</i>
Case 1 (A male student with academic challenges)	24.6	65	75.4	199
Case 2 (A female student with academic challenges)	22.7	60	77.3	204
Case 3 (A male student with behavioral challenges)	40.2	106	59.8	158
Case 4 (A female student with behavioral challenges)	36.4	96	63.6	168

Note. *N* = 264.

Students' Gender and Referral

We used the chi-square test to examine participants' decisions to refer or not refer a male student and a female student for special education evaluation. In the first comparison, we compared Case 1 to Case 2. In the second comparison, we compared Case 3 to Case 4.

The comparison of Case 1 and Case 2. When comparing Case 1: Male Academic and Case 2: Female Academic, the chi-square test was significant, $\chi^2(3, N = 264) = 174.879, p = .000$. This results showed: (a) teachers most frequently made a decision not to refer in both Case 1 and Case 2 ($n = 157$); (b) teachers second most frequently made a decision to refer in both Case 1 and Case 2 ($n = 53$); (c) teachers third most frequently made a decision to refer in Case 1 but not in Case 2 ($n = 32$); and (d) teachers least frequently made a decision to refer in Case 2 but not in Case 1 ($n = 22$).

We also examined responses across teachers who made a decision to refer in only one case, i.e. a teacher who decided to refer in Case 2: Female Academic but not in Case 1: Male Academic or a teacher who decided to refer in Case 1: Male Academic but not in Case 2: Female Academic. The model was not significant, $\chi^2(1, N = 54) = 1.852, p = .174$. This suggests the difference in responding when comparing Case 1 to Case 2 was not related to gender.

The comparison of Case 3 and Case 4. When comparing Case 3: Male Behavioral and Case 4: Female Behavioral, the chi-square test was significant, $\chi^2(3, N = 264) = 170.636, p = .000$. This result showed: ((a) teachers most frequently made a decision to refer in both Case 3 and Case 4 ($n = 151$); (b) teachers second most frequently made a decision not to refer in both Case 3 and Case 4 ($n = 70$); (c) teachers third frequently made a decision to refer in Case 3 but not in Case 4 ($n = 27$); (d) teachers least frequently made a decision to refer in Case 4 but not in Case 3 ($n = 16$). Figure 1 illustrates the result of this comparison.

We also examined responses across teachers who made a decision to refer in only one case, i.e. a teacher who decided to refer in Case 3: Male Behavioral but not in Case 4: Female Behavioral or a teacher who decided to refer in Case 4: Female Behavioral but not in Case 3: Male Behavioral. The model was not significant, $\chi^2(1, N = 43) = 2.814, p = .093$. This suggested the difference in responding when comparing Case 3 to Case 4 was not related to gender.

Figure 1. Bar chart showing the referral patterns based on gender

Problem Type and Referral

We used the chi-square test to examine teachers' decisions to refer or not refer for special education evaluation. In the first comparison, we compared Case 1 to Case 3. In the second comparison, we compared Case 2 to Case 4.

The comparison of Case 1 and Case 3. When comparing Case 1: Male Academic and Case 3: Male Behavioral, the chi-square test was significant, $\chi^2(3, N = 264) = 65.545, p = .000$. This result showed: (a) teachers most frequently made a decision to refer in Case 3 but not in Case 1 ($n = 112$); (b) teachers second most frequently made a decision not to refer in both Case 1 and Case 3 ($n = 67$); (c) teachers third most frequently made a decision to refer both in Case 1 and Case 3 ($n = 66$); (d) teachers least frequently made a decision to refer in Case 1 but not in Case 3 ($n = 19$). Figure 2 illustrates the result of this comparison.

We also examined responses across teachers who made a decision to refer in only one case, i.e. a teacher who decided to refer in Case 1: Male Academic but not in Case 3: Male Behavioral or a teacher who decided to refer in Case 3: Male Behavioral but not in Case 1: Male Academic. The model was significant, $\chi^2(1, N = 131) = 66.023, p = .000$. This suggested the difference in responding when comparing Case 1 to Case 3 was related to problem type. The majority of the teachers made a decision to refer the student with behavioral problems in Case 3.

The comparison of Case 2 and Case 4. When comparing Case 2: Female Academic and Case 4: Female Behavioral, the chi-square test was significant, $\chi^2(3, N = 264) = 67.788, p = .000$. This result showed: (a) teachers most frequently made a decision to refer in Case 4 ($n = 112$); (b) teachers second most frequently made a decision not to refer in both Case 2 and Case 4 ($n = 77$); (c) teachers third most frequently made a decision to refer in both Case 2 and Case 4 ($n = 55$); (d) teachers least frequently made a decision to refer in Case 2 but not in Case 4 ($n = 20$). Figure 2 illustrates the result of this comparison.

Figure 2. Bar chart showing the referral patterns based on problem type

We also examined responses across teachers who made a decision to refer in only one case, i.e. a teacher who decided to refer in Case 2: Female Academic but not in Case 4: Female Behavioral or a teacher who decided to refer in Case 4: Female Behavioral but not in Case 2: Female Academic. The model was significant, $\chi^2(1, N = 132) = 64.121, p = .000$. This suggested the difference in responding when comparing Case 2 to Case 4 was related to problem type. The majority of teachers made a decision to refer the student with behavioral problems in Case 4.

Students' Gender and Placement

We used the chi-square test to examine teachers' decisions to place or not place a male student and a female student in a special education classroom. In the first comparison, we compared Case 1 to Case 2. In the second comparison, we compared Case 3 to Case 4.

The Comparison of Case 1 and Case 2. When comparing Case 1: Male Academic and Case 2: Female Academic, the chi-square test was significant, $\chi^2(3, N = 264) = 266.576, p = .000$. This result showed: (a) teachers most frequently made a decision not to place in both Case 1 and Case 2 ($n = 180$); (b) teachers second most frequently made a decision to place in both Case 1 and Case 2 ($n = 41$); (c) teachers third most frequently made a decision to refer in Case 1 but not in Case 2 ($n = 24$); and (d) teachers least frequently made a decision to refer in Case 2 but not in Case 1 ($n = 19$). Figure 3 illustrates the result of this comparison.

We also examined responses across teachers who made a decision to place the student in a special education classroom in only one case, i.e., a teacher who decided to refer in Case 2: Female Academic but not in Case 1: Male Academic or a teacher who decided to place in Case 1: Male Academic but not in Case 2: Female Academic. The model was not significant, $\chi^2(1, N = 43) = .581, p = .446$. This suggested the difference in responding when comparing Case 1 to Case 2 was not related to gender.

The Comparison of Case 3 and Case 4. When comparing Case 3: Male Behavioral and Case 4: Female Behavioral, the chi-square test was significant, $\chi^2(3, N = 264) = 163.758, p = .000$. This result showed: (a) teachers most frequently made a decision not to place in both Case 3 and Case 4 ($n = 144$); (b) teachers second most frequently made a decision to place in both Case 3 and Case 4 ($n =$

82); (c) teachers third most frequently made a decision to place in Case 3 but not in Case 4 ($n = 24$); (d) teachers least frequently made a decision to place in Case 4 but not in Case 3 ($n = 14$). Figure 3 illustrates the result of this comparison.

Figure 3: Bar chart showing the placement patterns based on gender

We also examined responses across teachers who made a decision to place the student in a special education classroom in only one case, i.e. a teacher who decided to place in Case 4: Female Behavioral but not in Case 3: Male Behavioral or a teacher who decided to place in Case 3: Male Behavioral but not in Case 4: Female Behavioral. The model was not significant, $\chi^2(1, N = 38) = .581$, $p = .105$. This suggested the difference in responding when comparing Case 3 to Case 4 was not related to gender.

Problem Type and Placement

We used the chi-square test to examine teachers' decisions to place or not place the student in a special education classroom. In the first comparison, we compared Case 1 to Case 3. In the second comparison, we compared Case 2 to Case 4.

The Comparison of Case 1 and Case 3. When comparing Case 1: Male Academic and Case 3: Male Behavioral, the chi-square test was significant, $\chi^2(3, N = 264) = 103.727$, $p = .000$. This result showed: (a) teachers most frequently made a decision not to place in both Case 1 and Case 3 ($n = 133$); (b) teachers second most frequently made a decision to place in Case 3 but not in Case 1 ($n = 66$); (c) teachers third most frequently made a decision to place in both Case 1 and Case 3 ($n = 40$); and (d) teachers least frequently made a decision to place in Case 1 but not in Case 3 ($n = 25$). Figure 4 illustrates the result of this comparison.

We also examined responses across teachers who made a decision to place the student in a special education classroom in only one case, a teacher who decided to place in Case 1: Male Academic but not in Case 3: Male Behavioral or a teacher who decided to place in Case 3: Male Behavioral but not in Case 1: Male Academic. The model was significant, $\chi^2(1, N = 91) = 18.423$, $p = .000$. This suggested the difference in responding when comparing Case 1 to Case 3 was related to problem type.

Teachers were more likely to place the student with behavioral problems in a special education classroom in Case 3.

The Comparison of Case 2 and Case 4. When comparing Case 2: Female Academic and Case 4: Female Behavioral, the chi-square test was significant, $\chi^2(3, N = 264) = 122.424, p = .000$. This result showed: (a) teachers most frequently made a decision not to place in both Case 2 and Case 4 ($n = 140$); teachers second most frequently made a decision to place in Case 4 but not in Case 2 ($n = 64$); (c) teachers third most frequently made a decision to place in both Case 2 and Case 4 ($n = 32$); and (d) teachers least frequently made a decision to place in Case 2 but not in Case 4 ($n = 28$). Figure 4 illustrates the result of this comparison.

Figure 4. Bar chart showing the placement patterns based on problem type

We also examined responses across teachers who made a decision to place the student in a special education classroom in only one case, i.e. a teacher who decided to place in Case 4: Female Behavioral but not in Case 2: Female Academic or a teacher who decided to place in Case 2: Female Academic but not in Case 4: Female Behavioral. The model was significant, $\chi^2(1, N = 92) = 14.087, p = .000$. This suggested the difference in responding when comparing Case 2 to Case 4 was related to problem type. Teachers were more likely to place the student with behavioral problems in a special education classroom in Case 4.

Discussion

The purpose of this study was to examine differences in teachers' decisions in regard to referral and placement. First, we varied students' gender in the cases to explore the differences in responding when teachers made a decision in regard to referral and placement. It was hypothesized there would be a difference in the way teachers responded to the cases based on students' gender. Surprisingly, no statistical difference was found when teachers made a decision to refer a male student and a female student. Our findings were at odds with the data from the National Education Statistics (2016) indicating male students were more frequently identified for special education than female students. Mixed results exist in the literature examining teachers' referral decisions and students' gender. For

example, Goodman and Webb (2006) found no gender bias about students' referral. On the other hand, some of the previous studies indicated male students were more likely to be referred as compared to female students (Abidin & Robinson, 2002; Pas, Bradsaw, Hershfeldt & Leaf, 2010). Abidin and Robinson (2002) found that boys were referred two times more than girls. Similarly, Pas et al. (2010) found that male students were more likely to be referred to the Student Support Team of the school as well as special education evaluation.

Consistent with participants' referral decisions, there was no statistical difference when teachers made a decision to place a male student and a female student in a special education classroom. Our findings were at odds with previous studies. Anderson (1997) concluded that gender bias exists in the placement of students in special education. Wehmeyer and Schwartz (2001) indicated that females were disproportionately to be placed in regular education classroom. Results of our study suggest teachers' decisions to refer and their decisions to place a student in a special education classroom may be related to the other factors.

Second, we varied the problem type experienced by a student to explore the differences in responding when teachers made a decision in regard to referral and placement. It was hypothesized there would be a difference in the way teachers responded to the cases based on the problem type. Results indicated there was a difference in responding when teachers made a decision to refer a student with academic challenges and a student with behavioral challenges. One possible explanation that led teachers to make more referrals for a student with behavioral challenges might be related to teachers' perceptions about learning problems and behavioral problems. Similar studies exist in the literature examining the problem type and referrals (Abidin & Robinson, 2002; Soodak & Podell, 1993). More specifically, Abidin and Robinson (2002) indicated teacher participants reported a greater likelihood of referring students with behavioral problems. Likewise, behavioral problems accounted for a higher referral decisions in the study of Soodak and Podell (1993). Arms, Bickett, and Graf (2008) concluded teachers tend to notice students who disturb their peers and classroom environment. Thus, behavioral challenges draw teachers' attention as we found in this study.

Consistent with teachers' decisions in regard to referral, respondents were more likely to place a student with behavioral challenges in a special education classroom in this study. This study provides further evidence to the literature. In the study Frey (2002), teachers reported more restrictive placement for students with behavioral problems when teachers did not believe that they were able to manage students' behaviors. This finding is not surprising, if we consider teachers may perceive academic problems and behavioral problems differently.

Limitations of the Study

A number of limitations exist in this study. One limitation of this study is data gathered from one town of a metropolitan city in the East Marmara region of Turkey. Even though this study had a high response rate (85.2 %) and the city where the study was conducted represents the average country statistics on the enrollment rate of the students and pupil/teacher ratio, findings are not generalizable. There are also limitations related to the data collection methods of this study. The data was obtained via self-reported questionnaires in which respondents may not truly indicate their decisions in regard to referral and placement. Furthermore, we employed hypothetical cases in which we manipulated the problem type experienced by a student (academic or behavioral). It is possible teachers may respond differently to combined problems (academic problems plus behavioral problems) included in the hypothetical cases.

Implications for Future Research

This study was conducted in one town of a metropolitan city in the East Marmara region of Turkey. Contextual characteristics of the district may account for an increase or decrease in teachers'

decisions in regard to referral and placement. Future research should be extended to more districts and regions.

Future research should be enhanced by exploring teachers' beliefs about the problem type. As similar to the study of Jordan et al (1997), multiple methods of data collection (i.e. questionnaire, classroom observations, interviews) can be a way to examine teachers' beliefs about the problem type experienced by students. This study failed to find a difference in teachers' responses based on students' gender. One avenue of research might be to focus on other student characteristics (i.e. socioeconomic status, date of birth, severity of the problems). It is possible other student characteristics and referral concerns can lead teachers to make more decisions or less decisions in regard to referral and placement.

This study was unique in terms of methodology, because no researchers have used case methods to examine special education decision making process in Turkey. Future researchers should use cases that include culturally relevant data to examine whether teachers' decisions are influenced by multiple sources of data. To elucidate the degree of influence of data might allow researchers to examine special education decision making process through another lens.

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