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The Effects of Response to Intervention on Referral Rates for Special Education Services

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The Effects of Response to Intervention on Referral Rates for Special Education Services

Thesis submitted to
the Graduate College of
Marshall University

In partial fulfillment of
the requirements for the degree of
Educational Specialist
in the School Psychology Program

By

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ABSTRACT

The Effects of Response to Intervention on Referral Rates for Evaluations
by Christina Hare

It has been hypothesized in the literature that a Response to Intervention (RtI) model will reduce the number of referrals for special education services. The purpose of this study was to compare the number of special education referrals prior to the implementation of the West Virginia Department of Education pilot RtI project and the rates of referrals for special education services in the years following its implementation. Data was collected from two of the eleven pilot schools and analyzed collectively using a Chi-Square test. Results of this study showed that the RtI pilot project did not have a significant impact on the number of referrals made for special education services year to year. However, when examining longitudinal data, it is evident, that contrary to the research hypothesis, the number of referrals for special education services increased following the implementation of the RtI project, several years after its initial implementation.

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CHAPTER ONE

REVIEW OF LITERATURE

Helping all children learn has always been the overarching goal in public education. Specifically, helping children learn better and identifying those that are struggling earlier in the educational process has been shown to increase student outcomes. The passage of No Child Left Behind Act of 2001 and Individuals With Disabilities Education Improvement Act (IDEIA) of 2004 are examples of legislative initiatives designed to make schools more accountable by increasing their focus on helping all children learn by addressing problems earlier and more effectively. A primary incentive for these legislative initiatives was the concern in the educational community about the increasing number of children being placed in special education. Although there are thirteen disabilities categories recognized in IDEIA, slightly over half of all students with disabilities are classified as LD (Reschly & Ysseldyke, 2002). The number of students identified as having learning disabilities has increased more than 200% since the category was established in 1977 with some researchers asserting that many students have been misidentified or unidentified (Vaughn, Linan-Thompson, & Hickman, 2003).

Research has demonstrated a lack of success of traditional special education practices (Detterman & Thompson, 1997). The three tiered instructional model, which accelerates the amount of time students are provided instruction, rather than decelerating their learning has been shown to be an effective method for increasing student learning for all students (Palenchar, Brown, & Jennings, 2006). This process has been labeled “Response to Intervention” which is defined as “the practice of providing 1) high-quality instruction/intervention matched to student needs and 2) using learning rate over time and level of performance to 3) make important

education decisions” (Batsche, et. al., 2005). While the underlying principles behind RtI may not be new, the general intent of the process promotes the use of additional, targeted instructional time to increase student reading outcomes. The RtI process allows data to be collected and provides clearer indications of those who are not responding to intensive instruction. Increased interventions occur as the student moves up the pyramid. There is a question as to whether or not a comprehensive psychological evaluation should take place before or after Tier III. The reason for this comprehensive evaluation would be to determine why the student did not respond to intervention and help identify the most appropriate intervention to match the students’ strengths or weaknesses.

As indicated in the Response to Intervention: Blueprints for Implementation put out by the National Association of State Directors of Special Education, Inc, (2008) student outcome data are crucial to making accurate decisions about the effectiveness of general and remedial education instruction and interventions, early identification and intervention with academic and behavioral problems, preventing unnecessary and excessive identification of students with disabilities, making decisions about eligibility for special programs, including special education, and determining individual education programs and deliver and evaluate special education services.

The Response to Intervention Framework

The concept of RtI has always been the focus of the teaching/learning process and a basic component of accountability in general education (NJCLD, 2005). Essentially, RtI is an

objective examination of the cause-effect relationship(s) between academic or behavioral intervention and the student's response to the intervention (Brown-Chidsey & Steege, 2005).

The RtI model is made up of three major components, referred to as tiers, with Tier I being general education, Tier II being additional intensive instruction, and Tier III being specialized instruction and assessment. A key element of an RtI approach is the provision of early intervention when students first experience academic difficulties, with the goal of improving the achievement of all students and decreasing the number of students receiving special education services (NJCLD, 2005).

Although there is no universally accepted model or approach to the Response to Intervention model, there are general constructs that are common among the three-tiered model. According to the National Joint Committee on Learning Disabilities (2005) the basic framework of Tier I services involves "high quality instructional and behavioral supports" which are provided to all students within general education. NJCLD indicated that some other common features include:

- School personnel conduct universal screening of literacy skills, academics, and behavior.
- Teachers implement a variety of research-supported teaching strategies and approaches.
- Ongoing, curriculum-based assessment and continuous progress monitoring are used to guide high-quality instruction.
- Students receive differentiated instruction based on data from ongoing assessments.

In Tier I students are assessed three times per year to determine their progress (University of Texas System/Texas Education Agency, 2005). General instructional principles utilized in Tier I are based on scientifically based reading research (SBRR) (Guidelines for Reviewing a Professional Development Program in Reading, 2007).

When a child fails to respond to general education curriculum, they generally need additional supports which are provided through Tier II. The NJCLD discusses Tier II as including “students whose performance and rate of progress lag behind those of peers in their classroom, school, or district” and should receive more “specialized prevention or remediation within general education.” Some other common features include:

- Curriculum-based measures are used to identify which students continue to need assistance, and with what specific kinds of skills.
- Collaborative problem solving is used to design and implement instructional support for students that may consist of a standard protocol or more individualized strategies and interventions [Fuchs, et. al., (2003) used the term standard protocol to refer to an approach in which students with common academic difficulties are given research-based interventions that has been standardized and shown to be effective].
- Identified students receive more intensive scientific, research-based instruction targeted to their individual needs.
- Student progress is monitored frequently to determine intervention effectiveness and needed modifications.
- Systematic assessment is conducted to determine the fidelity or integrity with which instruction and interventions are implemented.
- Parents are informed and included in the planning and monitoring of their child’s progress in Tier II specialized interventions.
- General education teachers receive support (e.g., training, consultation, direct services for students), as needed, from qualified educators in implementing interventions and monitoring student progress.

Also in Tier II, students are grouped according to ability and instruction is provided in a small group setting. Assessment generally occurs bimonthly to collect data regarding progress (University of Texas System/Texas Education Agency, 2005).

If Tier II instruction proves to be insufficient to remediate the educational deficit, more intensity instruction is provided through Tier III services. Tier III is specially designed instruction whose goal is to identify a specific targeted problem. A child who is still struggling and not responding to specifically designed instruction might be referred for a comprehensive psychological evaluation (University of Texas System/Texas Education Agency, 2005). NJCLD specifies that Tier III involves a “comprehensive evaluation conducted by a multidisciplinary team to determine eligibility for special education and related services.” Some common features that NJCLD include in this tier are:

- Parents are informed of their due process rights and consent is obtained for the comprehensive evaluation needed to determine whether the student has a disability and is eligible for special education and related services.
- Evaluation uses multiple sources of assessment data, which may include data from standardized and norm-referenced measures; observations made by parents, students, and teachers, and data collected in Tiers I and Tiers II.
- Intensive, systematic, specialized instruction is provided and additional RtI data are collected, as needed, in accordance with special education timelines and other mandates.
- Procedural safeguards concerning evaluations and eligibility determinations apply, as required by IDEA 2004 mandates.

Additional benefits that NJCLD cites for the use of RtI include: 1) Earlier identification of students by means of a problem-solving approach rather than by an ability-achievement

discrepancy formula; 2) Reduction in the number of students referred for special education and related services; 3) Reduction in the over identification of minority students; and 4) Provision of more instructionally relevant data than traditional identification.

With the numbers of children entering special education increasing, the RtI model, through its use of intensive intervention, posits the reduction of the number of referrals. A 2006 study by VanDerHayden, Witt, and Gilbertson assessed the identification of learning disabled students after the implementation of RtI. In their study, VanDerHayden et. al., gathered demographic data including: race, sex, students receiving free lunch, standardized test scores, English language learners, and students identified as having a Specific Learning Disability for the year prior to and the years following the implementation of RtI in five target schools. Results of the study revealed that the number of initial psychoeducational assessments completed in each of the five schools declined following the implementation of RtI, however, that study did not follow the implementation longitudinally, and in fact, extrapolated the data from a time period of less than one school calendar year. Given what we know about teacher resistance to change, it is important to know whether or not an RtI implementation will be sustained sufficiently over time to reach a similar outcome. This study was designed to answer that question.

Statement of Hypothesis

The null hypothesis is that there will be no effect in the referral rate for special education services due to the implementation of the Response to Intervention project over time. The research hypothesis is that the implementation of the Response to Intervention project will result

in a decrease in the number of students referred for evaluations in the pilot schools initially and over time.

CHAPTER TWO

DESIGN OF THE STUDY

Following the passage of No Child Left Behind (2001) and IDEIA (2004) the West Virginia Department of Education decided to implement Response to Intervention across the state of West Virginia. In order to develop a model for implementation and professional development, the department decided to pilot a Response to Intervention project in selected schools around the state. The department hired an outside consultant to evaluate the project implementation and solicited the Marshall University Graduate College School Psychology program to assist in this evaluation. An evaluation team headed by Dr. Kenneth Olsen was formed and developed the evaluation protocol for the project. This protocol was implemented by graduate students in the School Psychology program in exchange for those students being allowed to use portions of the data for their master's thesis.

The methods section that is presented below was written jointly by all of the graduate students that participated in the Response to Intervention pilot project and was approved by the program evaluation team and the West Virginia Department of Education.

Participants

The West Virginia Response to Intervention project was implemented for grades K through 3 in eleven schools across the state. To be one of the pilot schools chosen, the schools needed to have (Olsen, 2005):

- Reading First or a 3-tier reading model;

- A committed school level administrator to provide site based leadership;
- A strong School Assistance Team (SAT) with procedures already in place and an “intervention vs. accommodations” approach for at-risk students;
- Personnel available to collect baseline data, implement tier two intervention, conduct progress monitoring, and document student response to interventions (e.g., special educator, Title I teacher, School Psychologist, diagnostician, or reading mentor teacher);
- Tier two instructional materials and trained staff;
- Made a qualified/certified special educator available to implement tier three interventions and document student progress;
- Made tier three instructional materials available and ensured that staff is adequately trained;
- Made technology available for collection and management of intervention data; and
- Participated in the Phonemic Awareness Project.

The participants in the West Virginia RtI pilot project included approximately 150 teachers, 11 principals, 11 project coordinators, and 9 special education directors representing the eleven pilot schools participating in the project. The counties in West Virginia represented in the project included: Hampshire, Harrison, Kanawha, Morgan, Preston, Putnam, Raleigh, Tyler, and Wood.

Data Collection

The level of implementation and success of the RtI pilot schools varied based on several factors including the leadership of the school, the knowledge of the project coordinator, the resources that were available, and whether or not the school was a Reading First school. This study derived its data from the two schools used as models of successful RtI implementation by the State Department of Education. Reading First schools were eliminated because they actually started the RtI project previous to the other pilot schools and therefore their data was skewed initially. The two schools selected were very effective in implementing the RtI project and therefore had the best chance of providing accurate data for this study. Information pertaining to the referral rates was collected by contacting the personnel in each school that was responsible for collecting and maintaining the RtI data. The total number of referrals for special education services made was collected for the year prior to the pilot project and then for each year after, including the year of the initial program implementation (2005-2006 school year).

Data Analysis

This study examined the effects of the implementation of the Response to Intervention model on the referral rates in two of the pilot schools using a time-series research design. A time-series design was used because “the essence of the time-series design is the presence of a periodic measurement process on some group or individual and the introduction of an experimental change into this time series of measurements, the results of which are indicated by a discontinuity in the measurements recorded in the time series” (Campbell & Stanley, 1963).

The referral rate data was analyzed using a Chi-Square test between the number of students referred in the year prior to the pilot project and each consecutive year after. This particular statistical test was selected to allow data to be analyzed in the form of frequencies. Additionally, the size of the data set was not large enough to represent the population resulting in the use of nonparametric statistics to best analyze the data.

CHAPTER THREE

RESULTS

One of the cited reasons to implement a Response to Intervention model is to decrease the number of referrals for special education services. The purpose of this study was to examine referral rates for special education services prior to and after the implementation of an RtI model. Two successful schools in the West Virginia Department of Education RtI pilot project were the focus of this study. Referral data was examined prior to the implementation of the project and its successive years from 2005-2008. To analyze data, a Chi-Square test was utilized because it allows “one to determine, when measurements are expressed as categories in the form of frequency counts, whether a difference exists...between before-and-after measurements of the same group...” (Mertler & Charles, 2005). For the purposes of comparing the data, the years will be referred to as the 2005, 2006, 2007, and 2008 school year. Referral numbers were combined across the two schools and analyzed. Results of the Chi-Square test showed that there is not a significant difference between the data from a year to year basis at $p > 0.05$ (2005 to 2006 $\chi^2 = 1.19$; 2006 to 2007 $\chi^2 = 2.55$; 2007 to 2008 $\chi^2 = 2.47$). However, when making a multi-year analysis, there is significance at $p < 0.01$ (2006 to 2008 $\chi^2 = 10.92$; 2005 to 2007 $\chi^2 = 7.78$; 2005 to 2008 $\chi^2 = 21.24$). Given the fact that the comparisons between each consecutive year were not significant, the null hypothesis is upheld.

CHAPTER FOUR

DISCUSSION

The purpose of this study was to examine referral rates for special education services prior to and after the implementation of two schools in the West Virginia Department of Education RtI project. This longitudinal study was conducted to examine the effects of implementing the Response to Intervention model on the referral rates in two pilot schools. The three tiered model of RtI is posited by literature to reduce the number of referrals which was the hypothesis of this study. Given the failure of special education services (Detterman & Thompson, 1997), a successful implementation of RtI should reduce referrals for special education services, thus, accomplishing one of the major goals of RtI implementation. This study showed that within the West Virginia pilot project, the RtI model had no effect on the number of referrals made from year to year. However, when examining the data from a longitudinal standpoint, it is evident that contrary to the expected reduction in numbers of referrals to special education, there was actually an increase in referrals.

There are many reasons that could account for this finding; however, there are some specific noteworthy changes that occurred in these schools that could account for this outcome. Additionally, it is believed by this researcher that the pattern demonstrated in this school can be generalized to other new program implementations. First, within the school examined, there were several administrative changes. For example, the project coordinator left after the pilot year and the trained replacement left two years later. Also, the principal left the building and the new principal was lacking in knowledge and commitment to the RtI process.

A second factor that could account for the findings in this study is a lack of supervision. As time progressed past the pilot year, there was less and less supervision by the West Virginia Department of Education. Initially, there were monthly meetings of the project coordinators. After the first year, meetings were held simultaneously with professional development, attendance was not mandatory, and a lack of institutional commitment followed. The result was little to no checks and balances resulting in a less than faithful implementation of the model.

When implementing a new initiative in schools, research and practice has told us that there is resistance to change which must be addressed in order to have successful implementation (Hall & Hord, 2005). The West Virginia RtI project never directly addressed teacher resistance to change when implementing this second order change. As a result, this project, like so many other educational initiatives, failed to survive long term implementation. Typically educators initiate a program, resist the change, and the program ceases to be implemented as designed. Data from other studies of the pilot project, by fellow graduate students, confirm this statement. Janna Christy, in her study (2008), measured change in teacher skill as a result of RtI implementation. Her results indicated that there was an improvement in the teaching skills in reading as a result of RtI implementation, however, there were “no significant changes reported in teacher skill when looking at the ability to use a three-tier model (RtI) to guide classroom instruction or develop appropriate interventions as a result of data (Christy, 2008). The first order change of improved reading skills was easily taught and developed by teachers through the professional development offered by the State Department trainings. However, the second order change of having teachers performing assessments, and using data to drive instruction by regrouping students based on skill deficits, faded as time passed. Teachers moved away from the

responsibility for all students and reverted back to the refer-test- and place model for which they have great comfort.

Further research needs to be conducted in the area of referrals to special education rates and the Response to Intervention model. This study could have been strengthened by an increased amount of data, and a future study in this area could be done by adding more pre-implementation data to allow for a better analysis of the data trends over time. Another area that might be researched in the future is the positive identification rate relative to the number of referrals. This would allow for a more in-depth examination of the success rate of the Response to Intervention model. Ultimately, in order to effectively answer the question about what effects the RtI model has on education, clearer determination of whether the referral process takes place between Tier II and Tier III or after Tier III needs to be made. Once there is a clear understanding across the nation of where and when the referral process fits in the RtI model (after Tier II or after Tier III), then and only then, will we be able to further research the question of the effects of a Response to Intervention model on special education referrals.

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Table 1

Chi-Square Value and Significance Level for 2005 and 2006

	Frequency of Referrals
Chi-Square	1.19
df	1

Table 2

Chi-Square Value and Significance Level for 2006 and 2007

	Frequency of Referrals
Chi-Square	2.55
df	1

Table 3

Chi-Square Value and Significance Level for 2007 and 2008

	Frequency of Referrals
Chi-Square	2.47
df	1

Table 4

Chi-Square Value and Significance Level for 2006 and 2008

	Frequency of Referrals
Chi-Square	10.92
df	1

Table 5

Chi-Square Value and Significance Level for 2005 and 2007

	Frequency of Referrals
Chi-Square	7.78
df	1

Table 6

Chi-Square Value and Significance Level for 2005 and 2008

	Frequency of Referrals
Chi-Square	21.24
df	1

Figure 1

Total number of referrals made each year in the two pilot schools

