

Response to Intervention as a Vehicle for Powerful Mental Health Interventions in the Schools

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School psychologists can work within a Response to Intervention (RtI) framework to increasingly promote the mental health of students. This article shares the unfolding of two composite case studies that exemplify how a practicing school psychologist can use a problem-solving framework to deliver effective mental health interventions to individual students. The first case involved an elementary school student who markedly improved in terms of on-task behavior, and the second case concerned a high school student who overcame school refusal and negative affect. The advantages of providing brief counseling and psychological consultation prior to a possible full evaluation or special education placement are discussed.

KEYWORDS: mental health, intervention, problem-solving, elementary school students, high school students

The reauthorization of the *Individuals with Disabilities Education Act* (IDEA) emphasizes Response to Intervention (RtI) as an alternative to IQ-achievement discrepancies in the identification of learning disabilities (U.S. Department of Education, 2004). This is likely the reason that the RtI literature has emphasized academic skills. As an example of the emphasis on academics, consider that the software for keeping track of Tier I, Tier II, and Tier III curriculum-based measurement (CBM) data (e.g., AIM-SWEB) have been around for quite some time, whereas behavioral progress monitoring systems and related software (e.g., the Behavior Intervention Monitoring and Assessment System; Bardos, McDougal, & Meier, 2010) are still being developed. As Gresham (2004) noted, the use of RtI logic to measure intervention response is better established in the academic domain than it is in the mental health domain, but RtI is well suited for addressing behavioral problems. Despite its potential usefulness, relatively few articles have discussed the application of RtI to behavioral problems (Hawken, Vincent, & Schumann, 2008), and RtI has been underutilized by school systems for addressing social and emotional challenges (Cheney, Flower, & Templeton, 2008).

One may view RtI as a promising framework within which school psychologists can prevent children from being unnecessarily labeled, placed, or medicated for attention and emotional disorders. In fact, in a recent study of RtI and behavior, the majority of students at risk for emotional disturbance across nine elementary schools responded well to a thorough intervention (Cheney et al., 2008). Because approximately 20% of children in the U.S. have significant emotional and behavioral difficulties, and most of these children do not receive mental health services, utilizing RtI to better serve children at risk for emotional and behavioral disorders presents an extremely important option for school psychologists (Cheney et al., 2008; Gresham, 2005; U.S. Surgeon General, 1999).

At Tier III, or the tertiary intervention level, in RtI, there is the expectation of the delivery and formative assessment of brief (i.e., 10 weeks), individualized and intense interventions prior to a full evaluation or special education placement (VanDerHeyden, Witt, & Gilbertson, 2007). This article presents two powerful case studies (composites to protect confidentiality) to educate school psychologists about how Tier III intensive interventions can meaningfully improve the mental health of children and youth in the schools. Both cases occurred in districts that were accustomed to the traditional role of the psychologist, but, in these cases, the psychologist gradually increased the implementation of a problem-solving

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model of RtI. Problem solving involves the application of the scientific method through clear problem identification, in-depth problem analysis, intervention development, ongoing measurement of students' intervention response, and refinement of the intervention based on data (Marston, 2005).

Although advanced single-subject designs for treating significant behavior problems are found frequently in school psychology journals (e.g., Lieberman, Yoder, Reichow, & Wolery, 2010), this article will present the unfolding of two cases that involved the implementation of designs and methods that are suitable to practitioners with heavy caseloads and that were implemented by a full-time practicing school psychologist serving various school districts. Although this sort of case study has been reported in the context of academic concerns (e.g., Bolt, 2005; Barnett et al., 2006), very few such cases in the context of emotional or behavioral concerns were found in school psychology journals. Although Barnett, VanDerHeyden, and Witt (2007) provide a clear, but very brief, example of how the same metric (rate of aggressive acts/minute) can be used across Tiers I, II, and III to demonstrate a positive response in Tier III for a Head Start student, the current article focuses solely on Tier III, so that readers can see how one might approach the different phases of an intense intervention case.

Barnett, Daly, Jones, and Lenz (2004) describe a case study of a Tier III intervention in which a student's disruptive behavior was decreased and the two key components of the intervention were identified through multiple treatment phases that were graphed. While the design of the case studies below is not as advanced, more case details are provided about what the school psychologist did at different phases of the problem-solving process (i.e., problem identification, problem analysis, intervention development and implementation, and intervention evaluation).

CASE STUDIES

Case 1: Problem Solving for Attention Difficulties

The referral concerns for this case involved educators stating the likelihood of a diagnosis of both ADHD and a reading disorder. There was no recorded behavioral observation data for Tier I or II; rather, the team had completed forms indicating that previous interventions (i.e., sitting toward the front of the class in Tier I and filling out a reward-based contract to pay attention more in Tier II) led to no improvement. The teacher felt overwhelmed, not knowing how to help the student. During the school-wide assistance team meeting, he said that the student was always off-task. All too often, at this point in the problem-solving process, school-wide assistance teams or individual professionals engage in ineffective practices, rapidly distributing short forms of ADHD scales and then either making a quick referral to the primary care physician or rushing into a full psychoeducational evaluation.

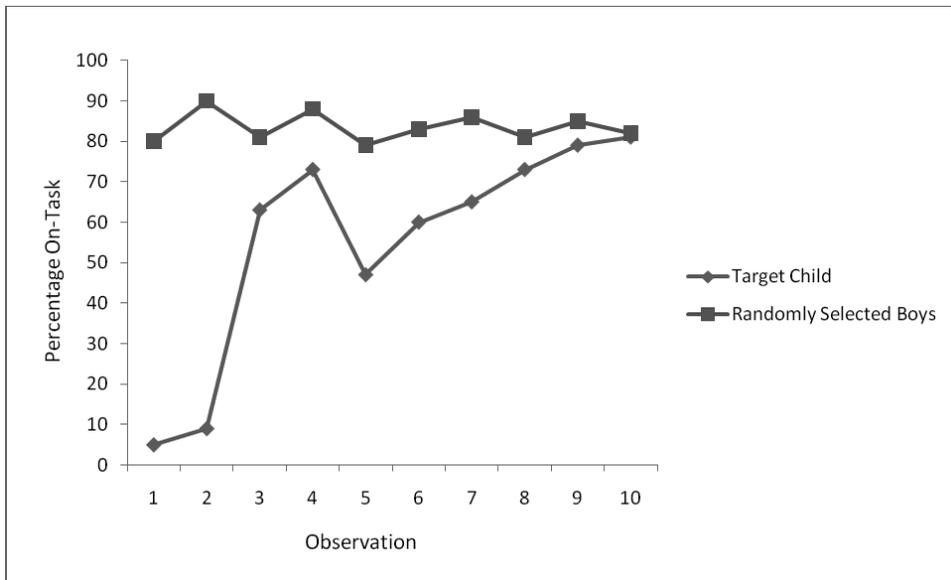
Problem identification

The teacher originally reported that the child was "always off-task" (e.g., staring out the window or at the ceiling, talking out of turn). During the team meeting, further probing elicited an estimate of the child's being on-task for a few minutes every hour. When asked for specifics about what it would look like if the child were much better, after interventions were implemented (the miracle question adapted from solution-focused therapy; Walter & Peller, 1992), the teacher explained that the student would listen attentively when the teacher was talking, talk when it was his or her turn or after being called upon, and read more quickly and accurately. The psychologist explained the importance of collecting baseline data (i.e., a period of recording observations prior to the intervention) on the child's on-task behavior that could be used to analyze the problem and provide reference points for later progress monitoring. The teacher's and the administrator's concerns about wasting time (by not beginning a full evaluation immediately) were addressed by explaining that the baseline observation data and later intervention response data could be useful even if the child did not significantly improve. In fact, by using these measurements of on-task behavior, the effects of medication or special education could be tested and compared to psychosocial interventions. The problem identification meeting concluded with the teacher, school psychologist, and other team members agreeing to a written plan for collecting the data.

Problem analysis

The student averaged a 7% on-task rate over the two weeks of baseline recording (Figure 1). While a longer baseline would have been preferable, the intervention team members were eager to see whether an intervention would work. The observations were conducted by an independent observer (another teacher), who was trained and supervised in the use of interval recording for time-on-task by the school psychologist. Simultaneous observations of randomly selected boys in the classroom indicated that the average boy was on-task approximately 84% of the time (Figure 1). After considering the data during an individual consultation with the teacher, the agreed-upon goal was for the student to reach an average of 80% on-task behavior within roughly eight weeks.

Figure 1. *Case 1: Percentage of observation intervals on-task during baseline and intervention.*



The psychologist explained that an evidence-based, self-monitoring intervention would likely lead to significant improvement in on-task behavior. Because on-task behavior was extremely low, the psychologist suggested that a sustained elevation in on-task behavior would likely lead to spillover improvements in oral reading fluency.

Intervention development and implementation

During the intervention phase, the school psychologist provided the student with approximately 30 minutes of training in self-monitoring procedures each week. The training included cognitive modeling, positive self talk, role playing with the use of the student's self-monitoring sheet, and perspective taking. Perspective taking involved the psychologist's inviting the student to play the role of the teacher by talking about his favorite hobby while standing at a chalk board and making illustrations. The student enjoyed the role play; however, what was notable was that he liked it better when the psychologist paid close attention to his presentation as opposed to when the psychologist acted bored or distracted. When the psychologist asked, "Now do you understand how your teacher feels when you do not pay attention to what he is interested in?" he appeared to have an epiphany and replied, "Yes, I do!"

At randomly selected times throughout the day, the teacher prompted the student to self-monitor by recording whether he was on-task. The student was trained to compliment himself when he was on-task and encourage himself when he rated himself as off-task. The teacher also used his own copy of the sheet to record whether the student was on-task. To build the student's self-monitoring accuracy and understanding of the teacher's view of on-task vs. off-task behavior, at the end of each day, the student

and teacher reviewed each self-monitoring instance. The teacher's ratings were used for determining whether rewards were earned, and daily rewards at school and weekly rewards at home were provided whenever the student met appropriately challenging self-set goals for attentiveness. Over the course of the intervention, the level of agreement between the student and the teacher increased from 40% to 95%, suggesting that the student was becoming a more accurate self-monitor.

The independent observer continued to collect behavioral observation data. One week after the treatment began, the student's behavior improved remarkably. However, during the third week of treatment, the psychologist noticed a significant dip in on-task level (observation 5 in Figure 1). To determine whether this reduction in on-task behavior was related to a shift in treatment integrity, the psychologist asked the teacher whether he did anything differently that week. The teacher explained that he had discontinued the intervention for a few days because he wanted to see whether the student could maintain his remarkable progress without it. Through analyzing the data together, the psychologist and teacher determined that the student needed the intervention to continue; however, the number of self-monitoring prompts was reduced so as to interfere with instruction less frequently.

Intervention evaluation

After an increase in treatment integrity, the student again increased his on-task behavior significantly. At the end of week nine, the teacher reported that the student was on-task as much as the average male student, which is in accordance with Figure 1. This favorable comparison with peers provides social validation for the student's behavioral improvement (Gresham, 2005). The teacher explained that he would adapt the intervention so that all children in the class could self-monitor simultaneously a few times a day. This enabled a successful fading of the intensity of the intervention (e.g., reduced self-monitoring frequency and a simplified self-monitoring sheet) for the targeted student, while also promoting the increased on-task behavior of children who chatted or otherwise engaged in mild levels of off-task behavior during instructional time. This class-wide adaptation of the intervention by the teacher is an example of a mental health and problem-solving consultation ideal (Gresham, 2004), promoting attentiveness and self-regulation throughout the class. This illustrates how psychologists can model a calm, confident, scientific approach to difficult problems and can help teachers become more effective problem solvers. The teacher, the reading specialist, and the parents were encouraged that the child's reading fluency gradually rose from the low-average to the average range during the course of this intervention.

Case 2: RtI Framework Made Room for the Effective Treatment of School Refusal

Problem identification

A high school guidance counselor noticed that a 10th grade girl often appeared sad, tired, and irritable. Her grades were dropping, and she often vehemently refused to attend school. Although she was perennially popular among classmates, she was starting to withdraw from them. Upon further probing, the guidance counselor explained that the student had 20 school refusals in the first 20 weeks of the school year and that her grades dropped from Bs in previous years to Cs at the time of the meeting. She also cried at school often and no longer engaged in conversation with her peers during free time (e.g., during lunch). After sharing this, the guidance counselor asked the school psychologist, "Can you evaluate her for depression and refer her to a physician, if necessary?"

The school had explained to all students at the beginning of the school year that regular attendance was expected, a physician's note was required for an absence, and that students would serve one detention for each unexcused absence after the second unexcused absence. Records showed that the student averaged approximately one unexcused absence per week for the first 10 weeks of the year. During Tier II, the student signed a contract with the guidance counselor, agreeing to increase her attendance. The guidance counselor was to write positive notes to the family for her improving her attendance rate for any given week, and the family and student would be reminded of the school discipline policy and the consequences associated with continued absenteeism. During 10 weeks of Tier II, the student continued to average approximately one unexcused absence per week. Toward the end of Tier II, the guidance counselor suspected that depression, rather than defiance, was the underlying reason for school refusal.

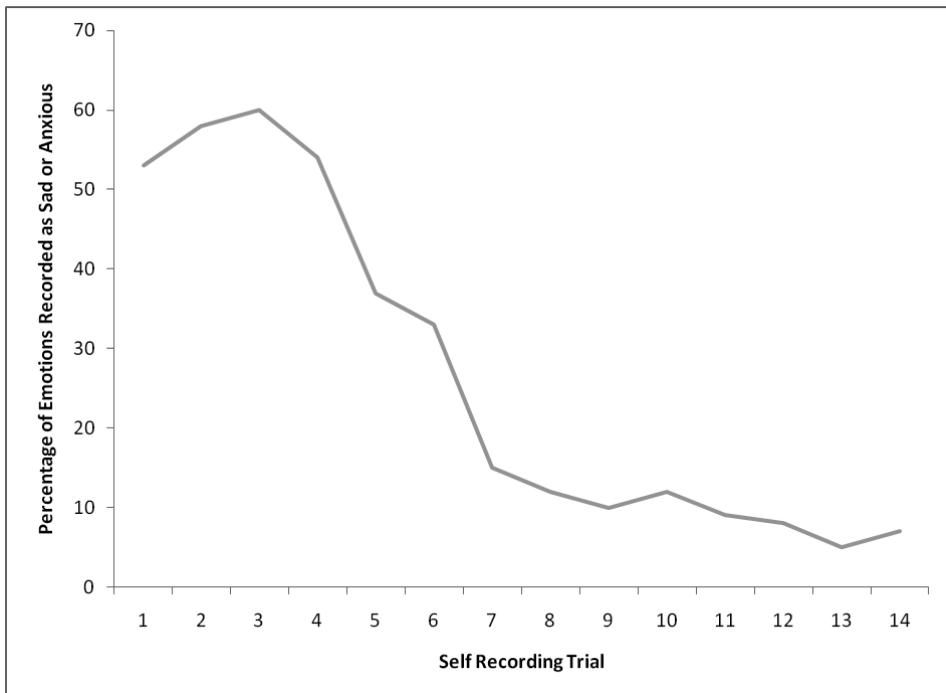
Typically, many school mental health professionals in similar circumstances screen for depression, make sure that such students are not suicidal, and make an outside referral if necessary. If the school psychologist would have done the last item without first developing an intervention, the student would have likely ended up on medication or would have accumulated so many days of absence that she would not have completed her courses that year.

Problem analysis

Pre-intervention self-rating scales provided by the school psychologist revealed that the student struggled with clinically significant levels of depression, including feeling sad, loss of interest in many daily activities, hypsomnia, fatigue, self-disparaging statements, and body image distortion as well as some symptoms of anxiety.

The school psychologist loaned the student a beeper that vibrates at random times, which he set to an average of once an hour. He taught her how to record on a handout whether she felt happy, calm, angry, sad, nervous, or neutral each time that the beeper vibrated. Because this was a school-based intervention, she had the beeper on only during the school day. During a week of baseline recordings, she felt sad or nervous an average of 55% of the time (Figure 2).

Figure 2. *Case 2: Self-recorded sad or anxious feelings during baseline and intervention.*



Intervention

The psychologist approached the case from a combination of a problem-solving and a traditional model. The psychologist suggested that he provide counseling from a cognitive-behavioral perspective, track intervention response data (i.e., attendance and student self-monitoring of emotions), and measure levels of depression again in eight weeks using in-depth behavioral rating scales. The psychologist stated that, if the student was still in the clinically significant range on the rating scales and did not improve on the Rtl measures, he would provide a psychological report that the mother could bring to a physician or clinical psychologist to obtain further treatment. Although this approach involved a paradigm shift in how the school psychologist would approach a situation like this, the guidance counselor agreed to the

plan, contingent on the mother's acceptance of the plan. The mother agreed to the plan at the end of a one-hour phone consultation session.

The student was interested in the interview process as well as learning about the interpretation of the depression and anxiety inventory results. Due to the student's initially being somewhat guarded during counseling, the psychologist decided to first develop a more collaborative relationship through non-directive counseling. The student made progress during these first two weeks, as seen in her perfect attendance and in a decrease in the percentage of times that she recorded feeling sad or nervous (Figure 2). She decreased her sad/nervous feelings, however, from an average of 55% of the time to an average of only 35%. Thus, the school psychologist decided to determine whether she could make greater improvement by directly teaching her how to replace negative or irrational thoughts (e.g., "I can't stand being at school") with more adaptive ones (e.g., "I'd rather be shopping, but I can learn at least one thing in this class today"). She was instructed to use the beeper not only as a self-monitoring tool but also as a trigger to identify what she was thinking and then to replace any irrational or negative thoughts with positive or more rational thoughts. This led to a stronger decline in self-reported sadness/anxiousness (Figure 2).

Intervention evaluation

The guidance counselor tracked the student's weekly attendance rates. Initially, the student had refused to attend school three times in the week prior to intervention. Improvement was noticed early on, in that there were no instances of refusal to attend school during the first few weeks of intervention. By sharing the progress with the family and school personnel, momentum was gained, and greater expectation for further improvement was developed.

At the end of the semester, a school administrator reported to the psychologist that the student had only one absence in the 15 weeks after the intervention commenced. This is a remarkable improvement on a social impact measure (i.e., an indicator that is considered to be critical for functioning in society), particularly because social impact measures are considered more difficult to change than more proximal measures such as anxiety (Gresham, 2005). The student also came to the psychologist's office to share that she obtained straight A's for the first time in her life. More importantly, she viewed herself as capable of succeeding in school if she applied herself, overcoming a previously low academic self-esteem. In accordance with improvement on daily ratings of her emotions (Figure 2), depression *t*-scores dropped from within the clinically significant range ($t = 75; 50$, with a standard deviation of 10, is average) to the average range ($t = 52$) at the end of eight weeks and then reached the below average range ($t = 40$) at 15 weeks. The maintenance of gains at 15 weeks boded well, particularly because the frequency of the counseling sessions had been reduced to twice a month after the first eight weeks.

The student's self-reported social anxiety and physiological symptoms of anxiety also were reduced from the at-risk to the normal range. In addition, the student reported falling to sleep easily, getting plenty of sleep, and waking up feeling refreshed. The student also noted that she felt like "a brand new person with a bright outlook on life." Her mother reported that she observed her daughter as smiling more, crying less, and speaking more positively than prior to the onset of the school refusal. The parent's report provided further social validation for the effectiveness of the intervention (Gresham, 2004) and indicated that skills gained in school-based counseling were being transferred to the home.

DISCUSSION

The case study involving self-monitoring provides an example of successful behavioral consultation (in Tier III) provided by a school psychologist. While the intervention and its measurement were similar to the single-subject design experiments published in school psychology journals (see Briesch & Chafouleas, 2009, for a review), the methods were implemented by one school psychologist and available school staff, rather than by a team of university researchers. This complements the work of university researchers by showing how a school psychologist, who is inundated with numerous cases and the exigencies of everyday practice, may be able to successfully apply a field-friendly, single-subject design and a self-monitoring intervention. This stands in contrast to the belief of single-subject design experts that practitioners have to negotiate the design and methods with problem-solving team members, often sacrificing internal validity for field expedience (Barnett et al., 2004).

In case study 1, a short baseline reduced the internal validity, but the comparison with randomly selected boys indicates that those not receiving the intervention had stable levels of on-task behavior. Case study 2, involving the student who overcame school refusal and negative affect, provides an example of utilizing both progress monitoring and behavioral rating-scale data in achieving and evaluating the success of an intervention provided by a school psychologist. Whereas many Tier III interventions are delivered by consultees, there are situations in which brief counseling provided by the school psychologist may be invaluable as a component of the intervention plan.

A group of school psychologists once asked me how to overcome resistance to implementing a problem-solving model of RtI in their buildings. Examples such as the case studies above were shared, along with an explanation that the easiest way to jump start problem-solving implementation in the face of skepticism is to develop powerful demonstration cases, which can provide momentum and credibility as well as elevate expectations. Many of these school psychologists lamented that they never had one case like those mentioned above, but many also began to develop hope for a better practice.

Clinical psychologists, school psychologists, family therapists, and mental health counselors have been encouraged with many such case examples during an American Psychological Association accredited professional development course using the course workbook provided (Froiland, 2006). Psychologists and counselors of diverse experience levels were happy to gain a fresh perspective and to realize that they were capable of doing even finer mental health work than they had been doing.

The current article was developed in the hope that school psychologists will increase their expectation that similar case successes can happen (or can happen more often) in their practices or in the practices of those whom they train. In addition to having the necessary psychological techniques and knowledge, it is vital that school psychologists believe (and convey an expectation) that they can help children and consultees better mobilize the curative resources available to them (Wampold, 2007). However, one also needs a service delivery framework for psychological interventions that are informed by ongoing assessment and, when indicated, summative assessment. RtI, especially with the emphasis on intense individualized interventions at Tier III, affords such potential.

Children and youth deserve an opportunity to thrive in the least restrictive environment. Because behavioral consultation (Noell, Duhon, Gatti, & Connell, 2002) and a variety of psychological interventions are effective (Wampold, 2007), school psychologists have the potential to help far more children thrive socially and emotionally. Special education placement, as well as the diagnostic labels required for placement, may lead to teasing and exacerbate self-esteem issues. Further, one does not know whether special education is actually the least restrictive environment unless effective consultation and interventions have first been implemented. Brief psychosocial interventions are likely to help children thrive in their general environment and are often worth implementing before a referral for a full psychological evaluation is made.

School psychologists can utilize RtI to further consult with schools and families to develop potent interventions that foster students' mental health, social success, and resilience. The case studies presented here show how a school psychologist might approach cases in the context of a school-based practice in schools that understand that RtI can serve as a vehicle for powerful mental health interventions.

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