Transporting Motivational Interviewing to School Settings to Improve the Engagement and Fidelity of Tier 2 Interventions

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The majority of Tier 2 interventions are facilitated by specialized instructional support personnel, such as a school psychologists, school social workers, school counselors, or behavior consultants. Many professionals struggle to involve parents and teachers in Tier 2 behavior interventions. However, attention to the motivational issues for influencing parents and teachers’ decisions to participate or implement the intervention as it was intended are often missing. In this article, the authors describe their efforts to infuse motivational interviewing into a well-established Tier 2 intervention, First Step to Success. Specifically, they summarize the iterative process that they
followed in order to develop this integrated model and the methods and results found in training coaches to implement it. Implications for practice and research are also discussed.

KEYWORDS challenging behavior, intervention, motivational interviewing, elementary education, fidelity

Motivational interviewing (MI) is defined as “a client-centered, directive method for enhancing motivation to change by exploring and resolving ambivalence” (Miller & Rollnick, 2002, p. 25). Miller and Rollnick (2002) suggested that MI diverges from classic client-centered counseling in that it is directive; specifically, counselors using an MI approach intentionally attempt to direct a client toward the resolution of ambivalence so that he or she will be inclined (i.e., motivated) to engage in forms of behavior that are more personally consistent with held values, goals, and aspirations.

MI is based on the notion that how one interacts with people has significant effects on motivation. Thus, it consists of a style—referred to as spirit—and specific interviewing strategies that have been applied in a variety of settings and with diverse populations. It is similar to other well-regarded counseling approaches in several respects. For example, an MI approach places a premium on (a) developing a supportive relationship (e.g., client-centered therapy), (b) focusing on specific behavior change (cognitive therapy, behaviorism, and solution-focused counseling), and (c) avoiding confrontation (i.e., systemic family therapy). Yet, MI is unique because of its emphasis on evocation, or the strategic use of strategies to leverage one’s motivation and commitment to engage in a target behavior.

MI has been used alone and in combination with other interventions. For example, the consultation first approach is offered as a prelude to other services, particularly when the duration of consultation is limited and with populations where initial engagement is low or risk of dropout is high. MI strategies can also be kept in the background of existing interventions, being used only as motivational issues arise. When kept in the background, counselors can address motivational issues as needed, referred to as motivational boosters, or proactively during times when the possibility of dropout is high, or commitment is low.

Over the course of the past decade, adaptations of motivational interviewing have been applied to a variety of clinical problems. Adaptations of motivational interviewing are defined by the delivery of individual feedback to a client using the spirit of MI to positively influence a specific target behavior such as alcohol use/abuse, diet, exercise, and diabetes management. Several studies have shown that clients who are exposed to adaptations of motivational interviewing are more likely to stay in treatment longer, put forth more effort during treatment, adhere more closely to the intervention protocol or recommendations, and experience significantly improved
Transporting Motivational Interviewing outcomes than those who receive identical treatment without the motivational interviewing component (see Miller & Rollnick, 2012).

To date, the Motivational Interviewing Network of Trainers has served as a primary vehicle for creating a pool of qualified instructors using a train-the-trainers approach. A brief review of the research on training in MI shows that medical personnel and community mental health and substance abuse counselors are common professional groups targeted to receive training. Systematic reviews of MI trainings suggest that they produce only moderate gains in skill levels and that these skills deteriorate rapidly after MI training workshops (see Madson, Loignon & Laine, 2009; Walters Matson, Baer, & Ziedonis, 2005).

Motivational interviewing has also been proposed as a promising and innovative approach for enhancing school-based interventions designed to promote academic achievement and prevent or ameliorate challenging behavior (Frey et al., 2011). Infusion of MI techniques into school-based intervention research is in its early stages but is continuing to be adopted by educational researchers to increase the fidelity of evidence-based interventions that depend on structured changes in teacher classroom management practices and parenting skills (Dishion, Stormshak, & Siler, 2010; Frey et al., 2011; Lee et al., in press; Reinke, Lewis-Palmer, & Merrell, 2008; Reinke, Frey, Herman, & Thompson, in press).

This article aims to describe our efforts to enhance child outcomes through the application of MI in an existing Tier 2 intervention—First Step to Success. We address the following questions:

1. What are the constraints associated with applying MI in the context of schools?
2. Is it feasible for school personnel to implement the MI approach proficiently?
3. What skills or experiences should be considered beneficial for school personnel implementing an MI approach?
4. How should proficiency be measured?
5. What benchmarks should be used to demonstrate proficiency?

Toward this end, we describe the integrated model and results from our attempts to measure our coaches’ ability to implement MI proficiently. Next, we highlight our revisions to the intervention and MI proficiency measurement protocol. Last, we present the assessment of our behavioral coaches’ MI proficiency. We conclude with implications for practice and research. By examining these questions, we contribute to this special issue on Tier 2 interventions by providing an option for support personnel who struggle engaging parents and teachers in Tier 2 interventions, or increasing implementation fidelity for those who choose to participate.
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Initial Intervention and Motivational Interviewing Proficiency Measurement Protocol

First Step to Success is an early intervention program, designed for at-risk elementary school children in the primary grades, who show clear signs of emerging externalizing behavior patterns including aggression toward others, oppositional defiant behavior, tantrums, rule infractions, and escalating confrontations with peers and adults (Walker et al., 1997). The First Step to Success program involves teachers, peers, and parents working collaboratively as implementation agents. The program requires 2–3 months from start to finish and is applied to only one child at a time in regular or special education classroom settings.

The First Step to Success program consists of three components that are applied in concert with each other: (a) a screening process to select the focus child; (b) a school component (referred to as Contingencies for Academic and Social Skills); and (c) the home component, which involves a curriculum called homeBase. The First Step program has been extensively evaluated (see Walker et al., in press) and has demonstrated strong, positive classroom outcomes across a majority of targeted behaviorally at-risk, primary level students. The original First Step program, which is considered a Tier 2 intervention, is generally successful. However, it is less effective for children whose challenging behavior is severe, and its effect on student behavior in the home setting has not been formally established (Walker et al., 2009).

The enhancements to the existing First Step to Success intervention were developed in response to the growing recognition and need for school-based interventions that more effectively address family or community-based risk factors, which serve as barriers to school success. Specifically, we assumed MI might be a useful approach to increase parents’ motivation to adopt and implement the parenting practices promoted in the First Step home component. Furthermore, we assumed that increased motivation would result in a higher quality and more prolonged engagement, and that participating parents would be more likely to use their new skills following termination of the First Step intervention. Our initial intervention protocol is subsequently described.

INITIAL INTERVENTION PROTOCOL

After attending the Ecological Approach to Family Interventions and Treatment training session, led by Tom Dishion and Beth Stormshak, and completing 3 days of training in MI led by a Motivational Interviewing Network of Trainers certified trainer, we developed a first draft of the Tertiary First Step Implementation Manual. It was largely conceptual, consisting of a modified version of Dishion and Stormshak’s Family-Check-up tasks completed before initiating the existing First Step homeBase curriculum. These tasks included (a) initial intake interview, (b) ecological assessment, (c) feedback,
and (d) action planning. The Family Check-up was proposed as an adaptation of motivational interviewing for the First Step program because of its efficacy and because we believed assessing parenting practices and sharing them with the parent in a collaborative fashion early in the process would lead to improved engagement in the parent training component and better child outcomes. We concluded that applying the MI spirit and the interviewing skills found in the MI literature systematically and proficiently would be extremely important to our overall development effort.

Over the course of this pilot implementation phase, our three interventionists, the principal investigator, and MI consultant met for supervision weekly. Supervision consisted of reading and discussing Miller and Rollnick’s (2002) text on the MI approach and completing quizzes prepared by our MI consultant. In addition, our First Step coaches took turns bringing in audio recordings of their interactions with parents, coding them using the Motivational Interviewing Treatment Integrity (MITI) code (Moyers, Martin, Manuel, Miller, & Ernst, 2007), and discussing the interactions with coaches to improve their MI proficiency. Coding audio recordings and obtaining feedback on practice is endorsed by the Motivational Interviewing Network of Trainers as a critical step in following the MI training regimen and in ongoing skill development.

**INITIAL MI PROFICIENCY MEASUREMENT PROTOCOL**

The MITI (Moyers et al., 2007) is designed for providing evaluative performance feedback to clinicians and to measure MI proficiency in the context of applied research. The MITI includes a measure of directive use, defined within the instrument as “the degree to which coaches maintain appropriate focus on a specific target behavior or concerns directly tied to it” (p. 2). Descriptions, examples, and scoring rubrics are used to more rigorously define the exact nature of directive use. The MITI allows for independent coding of MI across five global dimensions (evocation, collaboration, autonomy/support, direction, and empathy); evocation, collaboration, and autonomy/support are frequently combined to produce a global spirit rating. In addition, counselor utterances are coded as one of the following: (a) closed-ended question, (b) open-ended question, (c) simple reflection, (d) complex reflection, (e) MI-adherent, (f) MI-nonadherent, and (g) information. Beginning proficiency and competency thresholds, summarized in Table 1, are provided for five summary scores: global spirit rating, percent complex reflections, percent open questions, reflection-to-question ratio, and percent MI adherent. It is important to note that although these thresholds are based on expert opinion, they currently lack normative or other validity data to support them. They have been established in clinical counseling contexts, largely in the field of substance use/abuse treatment. The MITI demonstrates minimally adequate psychometric properties, with Moyers and colleagues
TABLE 1 Scoring Procedures and Proficiency and Competency Thresholds

<table>
<thead>
<tr>
<th></th>
<th>Scoring</th>
<th>Beginning threshold</th>
<th>Competency threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global spirit rating</td>
<td>Evocation + Collaboration + Autonomy and Support / 3</td>
<td>Average of 3.5</td>
<td>Average of 4</td>
</tr>
<tr>
<td>Reflection-to-question ratio</td>
<td>Total Reflections / Open Questions + Closed Questions</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Percent open questions</td>
<td>Open Questions / Open Questions + Closed Questions</td>
<td>50%</td>
<td>70%</td>
</tr>
<tr>
<td>Percent complex reflections</td>
<td>Complex Reflections / Total Reflections</td>
<td>40%</td>
<td>50%</td>
</tr>
</tbody>
</table>

(2005) reporting interclass correlations to estimate the interrater reliability of the global ratings at .51 for empathy/understanding and at .58 for the general spirit of MI. The intraclass correlations for coach utterances ranged from .57 to .96.

The initial iteration of the intervention, as previously described, was completed with nine sets of teachers/children/parents. We audio recorded as many conversations with parents as possible, and contracted with the lead author of the MITI to have several session recordings coded under her supervision. According to this evaluation, our coaches fell short of the beginning proficiency threshold on all five summary scores. Evocation ($M = 2.79, SD = 0.80$) and empathy ($M = 2.93, SD = 1.05$) were the lowest reported global dimensions. Reliability between coders was appropriate for the behavior codes but not for the global dimension ratings. We concluded that the disappointing results were attributable to several factors including (a) implementation procedures that did not provide enough support for coaches; (b) training procedures that were not specific to school-based applications; and (c) the MITI global ratings, which required evaluations on multiple dimensions.

Revisions to the Intervention and Motivational Interviewing Protocol

Following our initial conceptualization and implementation effort, we made substantial changes to the tertiary homeBase procedures and added new procedures to the school component based on the MI approach. In addition, we revised the MI measurement protocol.

Revisions to the Intervention Protocol

Several revisions to the intervention protocol were made during our second year of the project. We continued to make changes as we implemented the
tertiary First Step intervention with 19 additional children, parents, and teachers. In supervision with our coaches, we would frequently discuss how it was difficult to apply the interviewing techniques described by Miller and Rollnick (2002). We developed the Motivational Interviewing Navigation Guide (MING) to address this issue, which is depicted in Figure 1. MING is a five-step process that can be used by coaches in home or school settings to increase motivation for adopting and implementing evidence-based practices. The five steps of the MING process include (a) engage in values discovery; (b) assess current practices; (c) share performance feedback; (d) offer extended consultation, education, and support; and (e) provide closure. It is this conceptualization that was infused into the intervention procedures to increase parent motivation to change their behavior.

Using MING to guide further intervention development, we made substantial changes to the tertiary homeBase component of First Step. We eliminated use of the original home component curriculum structure (i.e., homeBase), and used the five-step MING process to encourage parents to reflect on, and possibly commit to developing a change plan focusing on

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**FIGURE 1** Motivational Interviewing Navigation Guide. Reprinted with permission by Positive Behaviour Management.
one or more of the five universal principles of positive behavior support: (a) establish clear expectations; (b) directly teach the expectations; (c) reinforce the display of the expectations; (d) minimize attention for minor inappropriate behaviors; and (e) establish clear consequences for unacceptable behavior (Golly, 2006). We aligned the implementation procedures for the tertiary homeBase component to align with the five-step MING process with families. This alignment simplified our development for writing the implementation procedures (e.g., meetings agendas, interview guides, and primers).

In addition to a tertiary program variation, we created a manualized procedure—First Step classroom check-up—that could be implemented flexibly at the secondary and tertiary program variations, as a standalone intervention, or as one of several components of a to be developed universal program variation within an overarching First Step system of support. The First Step classroom check-up is a modified version of Reinke and colleagues’ (2008) classroom check-up intervention, which uses an MI approach to facilitate the teacher’s adoption of effective classroom management strategies. We believed the general procedures, which included assessment, performance feedback, and intervention planning, would be an excellent supplement to the existing school component of the First Step intervention. We made several modifications to the classroom check-up procedures. For example, Reinke and colleagues’ (2008) classroom check-up required daily data collection, and teachers were provided graphic representations of the extent to which they directed general or specific attention to desirable or undesirable behavior. Our version capitalized on all we had learned about the application of specific MI strategies with families. Similar to the tertiary homeBase, the First Step classroom check-up is MING-infused and uses the five universal principles of positive behavior support as potential target of parent behavior change. Thus, the home and school enhancements represent parallel processes.

REVISIONS TO THE MOTIVATIONAL INTERVIEWING MEASUREMENT PROTOCOL

We also modified the MITI following our initial application with families. Specifically, we altered the format of the stem and response options so that the stem represented the ideal (i.e., high proficiency) and the response options anchored the five items on a Likert-type scale ranging from 1, strongly disagree to 5, strongly agree. We subsequently altered the structure and, to some extent, the content of the global dimensions, hoping to create more mutual exclusivity. These modifications are briefly described in this list below, each beginning with our new dimension label followed by the original MITI label (in parentheses), our stem (in italics), and a brief rationale for the changes we made.
1. Expert role and collaboration (collaboration). Fostered and encouraged power sharing during the interaction in such a way that client ideas substantially influence the nature of the session. We did not change the content here, and the original MITI response options are simply mapped onto our revised stem. However, we retained the dual focus on expert and collaboration thus choosing to relabel this global dimension.

2. Control, autonomy, and choice (autonomy/support). Promoted client control, autonomy, and choice allowing the client to freely consider change and make decisions consistent with their values, goals, and ideals. This dimension label better represents the three issues as we saw them. We also added content regarding values, goals, and ideals to each of the response options because this seemed particularly critical in our work. We recommend the ratio of simple to complex reflections as an indicator to distinguish between agree and strongly agree options.

3. Direct client language (direction). Directed client’s language toward change through differential responses to change and resistance talk, encouraging the client’s commitment to change in the target behavior. It was our attempt here (a) to distinguish between this item and the evocation item and (b) to recognize our use of the five universal principles as target behaviors.

4. Understand and reflect (empathy). Demonstrated understanding of client point of view through complex reflections and accurate summaries so that the client senses he/she is understood. We did not change the content here, and the original MITI response options are simply mapped onto our revised stem. We do believe the ratio of simple to complex reflections should be an indicator distinguishing between agree and strongly agree.

5. Evocation. Proactively evoked client’s own reasons for change and ideas about how change should happen (e.g., uses client values to encourage envisioning alternatives to current behaviors and situations). We did not change the dimension label or content here, and the original MITI response options are simply mapped onto our revised stem.

Evaluation of Motivational Interviewing Proficiency

After pilot-testing and modifying these additional components and the MITI, we implemented the tertiary version of the intervention with the First Step classroom check-up with 18 teachers and families during the final year of the development project. Three coaches, who had no previous experience with MI but with 1 year of training and experience with our project, participated during the 2011–2012 school year. Coaches (two women, one man) had master’s degrees—one in education, one in social work, and one in school counseling. All coaches were Caucasian, and they ranged from 26 to 47 years of age.
From 55 scheduled interviews, we obtained consent to audio-record 45 of them. Of these, 15 were randomly selected from the tertiary homeBase and First Step classroom check-up components (30 in total). Of the tertiary homeBase recordings, 11 represent MING Step 1 (i.e., Values and Current Practices Assessment) and 4 represent MING step 3 (i.e., Debriefing Interview). For the First Step classroom check-up, the MING steps are addressed in a single interview. Start times were randomly selected, and each tape was coded for 20 min. We contracted with the Clinical Training Institute to code the audio recordings. To calibrate the coders, we provided the data to the Clinical Training Institute, discussed the results with the investigators, and then Clinical Training Institute staff members reviewed and discussed recordings where substantial disagreement was detected. Of the recordings, 67% \((n = 20)\) were coded independently by a second Clinical Training Institute staff member. The intraclass correlation for the global spirit rating was .47. The intraclass correlations for closed- and open-ended questions were .91 and .90, respectively. Simple, complex, and total reflections yielded intraclass correlations of .51, .27, and .73.

As shown in Table 2, coaches exceeded the competency criteria for the global spirit rating \((M = 4.33, SD = 0.57)\). Mean scores for the five global dimensions ranged from 4.07 (understand and reflect; \(SD = 0.74)\) to 4.26 (expert role and collaboration; \(SD = .76)\). In addition, coaches met the beginning proficiency level for the reflection-to-question ratio with a mean

<table>
<thead>
<tr>
<th>MITI code</th>
<th>Minimum</th>
<th>Maximum</th>
<th>(M)</th>
<th>(SD)</th>
<th>Competency level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global dimensions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expert role and collaboration</td>
<td>3</td>
<td>5</td>
<td>4.37</td>
<td>0.76</td>
<td>N/A</td>
</tr>
<tr>
<td>Control, autonomy, and choice</td>
<td>3</td>
<td>5</td>
<td>4.27</td>
<td>0.69</td>
<td>N/A</td>
</tr>
<tr>
<td>Direct client language</td>
<td>2</td>
<td>5</td>
<td>4.13</td>
<td>0.86</td>
<td>N/A</td>
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<tr>
<td>Understand and reflect</td>
<td>3</td>
<td>5</td>
<td>4.07</td>
<td>0.74</td>
<td>N/A</td>
</tr>
<tr>
<td>Evocation</td>
<td>3</td>
<td>5</td>
<td>4.37</td>
<td>0.56</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Behavior codes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closed questions</td>
<td>0</td>
<td>22</td>
<td>5.40</td>
<td>5.34</td>
<td>N/A</td>
</tr>
<tr>
<td>Open questions</td>
<td>1</td>
<td>16</td>
<td>5.53</td>
<td>3.99</td>
<td>N/A</td>
</tr>
<tr>
<td>Simple reflections</td>
<td>1</td>
<td>15</td>
<td>5.50</td>
<td>4.72</td>
<td>N/A</td>
</tr>
<tr>
<td>Complex reflections</td>
<td>2</td>
<td>15</td>
<td>7.50</td>
<td>3.38</td>
<td>N/A</td>
</tr>
<tr>
<td>Total reflections(^*)</td>
<td>5</td>
<td>30</td>
<td>13.00</td>
<td>6.16</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Summary scores</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global spirit rating</td>
<td>3.33</td>
<td>5.00</td>
<td>4.33</td>
<td>0.57</td>
<td>Competency</td>
</tr>
<tr>
<td>Reflection-to-question ratio</td>
<td>0.45</td>
<td>7.00</td>
<td>1.82</td>
<td>1.49</td>
<td>Beginning proficiency</td>
</tr>
<tr>
<td>Percent open questions</td>
<td>15%</td>
<td>100%</td>
<td>56%</td>
<td>24%</td>
<td>Beginning proficiency</td>
</tr>
<tr>
<td>Percent complex reflection</td>
<td>23%</td>
<td>93%</td>
<td>62%</td>
<td>22%</td>
<td>Competency</td>
</tr>
</tbody>
</table>

\(^*\)Sum of simple and complex reflections.
ratio of 1.82 ($SD = 1.49$) and for percent open-ended questions with an average percentage of 56 ($SD = 0.24$) across the 30 audio-recorded sessions.

Results were also disaggregated for recordings involving parents, using the Tertiary homeBase component ($n = 15$), and teachers who participated in the First Step classroom check-up ($n = 15$). As shown in Table 3, coaches reached the competency threshold for the global spirit rating with parents ($M = 4.20, SD = 0.63$) and teachers ($M = 4.47, SD = 0.50$). The beginning proficiency threshold was obtained for reflections-to-question ratio, with an average ratio of 1.83 ($SD = 1.36$) for applications with parents and 1.81 ($SD = 1.67$) with teachers. Mean percent open questions appear to show the most differential but were in the beginning proficiency range for applications with parents ($M = 53\%, SD = 0.26$) and teachers ($M = 58\%, SD = 0.22$). Last, coaches were in the competency range for percent complex reflections in home and school settings (home/parents: $M = 64\%, SD = 0.21$; school/teacher: $M = 62\%, SD = 0.59$).

Implications for School Psychologists and Other Specialized Instructional Support Personnel

Although it is encouraging to believe MI is a promising strategy to more effectively engage teachers and parents to put forth additional effort during intervention and adhere more closely to the intervention’s implementation protocol or recommendations in order to experience significantly improved outcomes for children, much work is required to successfully transport this approach into authentic educational settings for interventions across Tiers 1, 2, and 3. To this end, we have attempted to transport the MI assessment and feedback procedures that have been successful in substance abuse (Miller et al., 1988), prenatal counseling (Handmaker et al., 1999), and diabetes management (Smith, Heckemeyer, Kratt, & Mason, 1997) into the context of a school-based intervention for young children with challenging behaviors. Although an MI approach has been used by several groups of school-based

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**TABLE 3** Summary Score Means and Standard Deviations, by Setting

<table>
<thead>
<tr>
<th>Setting/Interviewee</th>
<th>Global spirit rating</th>
<th>Reflection-to-question ratio</th>
<th>Percent open questions</th>
<th>Percent complex reflections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home/parents ($n = 15$)</td>
<td><strong>4.20 (.63)</strong></td>
<td><em>1.83 (1.36)</em></td>
<td><em>53 (26)</em></td>
<td><strong>64 (21)</strong></td>
</tr>
<tr>
<td>School/teacher ($n = 15$)</td>
<td><strong>4.47 (.50)</strong></td>
<td><em>1.81 (1.67)</em></td>
<td><em>58 (22)</em></td>
<td><strong>59 (23)</strong></td>
</tr>
<tr>
<td>Total</td>
<td><strong>4.33 (.57)</strong></td>
<td><em>1.82 (1.49)</em></td>
<td><em>56 (24)</em></td>
<td><strong>62 (22)</strong></td>
</tr>
</tbody>
</table>

*Beginning proficiency.
**Competency.
researchers (see Dishion et al., 2008; Dishion & Stormshack, 2007; Dishion, Stormshak, & Siler, 2010; Frey et al., 2011; Reinke, Lewis-Palmer, & Merrell, 2008), we believe this is the first systematic attempt to examine the potential MI proficiency of school personnel (i.e., coaches). In the following section, we interpret our findings and address the questions posed in the introduction related to school-based MI applications.

What Are the Constraints Associated With Applying MI in a School Context?

Within our supervision sessions, we frequently discussed the unique features and differences in an educationally relevant application of MI in school and home settings. Three constraints were particularly notable. First, the identification of target behaviors for change with teachers and parents can be challenging. The application of MI with teachers and parents is often indirect in that the initial referral and ultimate target behavior for change belongs to the child (e.g., improved social skills or reduced problem behaviors). However, the evidence suggests changes in teacher practices and parenting strategies may be the most efficient path to achieve desirable results. However, identification of teacher and parenting behaviors that are influential and demonstrate the potential to change child behavior can be difficult to define and measure. Second, the expertise of school-based personnel may serve as a constraint in applying MI effectively in schools. Empathy, client-centered counseling skills, and MI interviewing skills are prerequisites to practicing MI proficiently. However, these skills are not typically a priority for the professional development programs that prepare school personnel. Last, lack of time is a constraint for the practice MI in school settings. Specifically, teachers and parents are limited in their ability to devote the necessary time to participate in frequent or lengthy consultation meetings. Thus, despite the theoretical and intuitive appeal of infusing MI into existing Tier 2 intervention procedures, there are also constraints specific to school settings that impact feasibility.

Is It Feasible for School Personnel to Implement the MI Approach Proficiently?

Our findings suggest that it is feasible for school personnel to implement MI proficiently. The strongest evidence we have for this assertion is that our First Step interventionists reached the beginning proficiency or competency threshold for four of the five MITI summary scores (see Table 3). It is important to note that the behavior code definitions were not altered in our revised MITI, thus making comparisons to the standards detailed in Table 1 parallel.
Our data show that it was possible for these coaches, who had no previous training in MI, to achieve the MITI-established thresholds. Furthermore, our coaches fared well on each of the four MITI summary scores, although a direct comparison of our results to the global spirit score is problematic given that the items and structure of the response options were altered. These findings also have face validity, with the coders at the Clinical Training Institute reporting anecdotally that our coaches are among the best they have seen, and they have coded hundreds of recordings using the MITI. Becoming proficient took far more training and supervision than could commonly be provided in typical educational settings. However, we believe attending to the following prerequisite recommendations, establishing a training infrastructure for school-based personnel, and adhering to well-developed intervention protocols can decrease the amount of time necessary to become proficient substantially.

What Skills or Experiences Should Be Considered Beneficial for School Personnel Implementing an MI Approach?

Our experience is that within educational settings, the application of MI skills may be even more difficult than it is in a clinical setting—perhaps because of the unique constraints associated with applying MI in school settings mentioned previously. This is likely the case because counseling skills are less well developed among educators, and because consultations tend to be too brief to implement the requisite techniques. Nevertheless, the critical skills beneficial to implementation of MI with proficiency are as follows: baseline counseling skills, supportive assumptions about human nature, compassion, and MI skills (Miller & Rollnick, 2012).

Baseline counseling skills are closely related to the ability to learn and use motivational interviewing effectively. Two randomized controlled trials have demonstrated that baseline counseling skills were highly predictive of learning MI and later using it (Miller, Yahne, Moyers, Martinez, & Pirritano, 2004; Moyers et al., 2007). These results are likely to be just as important in educational settings, and this finding is consistent with our own experiences.

Although assumptions about human nature are difficult to measure and assess, they are important for school personnel. Miller and Moyer (2006) suggested that a person’s assumptions about human nature are a powerful predictor of practicing MI with fidelity. For school personnel, being willing to suspend disbelief, having an active curiosity about the parent’s or teacher’s perspective, and believing people possess substantial personal expertise and wisdom regarding themselves are important attributes, and demonstrate acceptance. In addition, it is important to believe people will make good life choices if given the proper support. MI requires that coaches truly believe parents and teachers want what is best for the child, and that they can obtain
the skills and garner the motivation to accomplish this. What is more important is that coaches must be willing to maintain their capacity to suspend innate tendencies to fix the problem themselves or act as the authority, opting to work in partnership towards a solution. Coaches must be interested in hearing the stories of parents and teachers, and empathetic to the plight in which many disenfranchised people find themselves. Coaches who hold these values or have these attributes will have a much easier time learning and practicing MI than those who do not. Miller and Moyer (2006) did not regard them as prerequisites, but they argued that a willingness to think this way about clients and consultation is imperative. Given the myriad of constraints that can lead to reduced supervision in school settings, we believe selecting highly qualified coaches may be necessary to successfully implement MI proficiently.

Another skill that is highly correlated with the successful use of MI is compassion (Moyers & Miller, 2012). Prescreening coaches for empathic skills prior to expecting them to use an MI approach may reduce disruption and expense associated with excessive training and supervision costs.

Another critical skill is the ability to implement MI techniques. Whereas our procedures have been carefully designed so that those persons with baseline skills in the MI approach can apply them with proficiency in the context of this intervention, the tertiary First Step and First Step classroom check-up manuals do not include procedures to initially train coaches in the MI approach. Although a specialized training procedure for school personnel is currently being pilot tested, it has not yet been disseminated. To date, the Motivational Interviewing Network of Trainers has served as a primary vehicle to create a pool of qualified instructors using a training of trainers approach.

How Should Proficiency Be Measured?

Although the MITI is an extremely useful tool for training and clinical supervision, we believe it (whether using the original or our revised version) may require modifications if it is to be useful for establishing proficiency or measuring fidelity for the purpose of research. This conclusion is based on several observations. First, although it has been used for research on multiple occasions, MI interrater reliability has typically not been reported. When it has been reported is has only met minimal adequacy standards (Moyers et al., 2005). The third edition of Motivational Interviewing was recently released (Miller & Rollnick, 2012). The conceptualization of MI appears to have been modified enough to also warrant changes to the MITI. We suggest the development of two versions, one for clinical feedback and one for research. Despite the clinical usefulness of having global dimensions, behavior codes,
and summary scores, we believe fewer coding categories would improve interrater reliability.

Improving the measurement options for evaluating MI fidelity would enhance replication efforts substantially. For example, it may be useful to examine the functionality of fewer MITI codes. Although the level of detail in the current measure is useful for providing feedback in the context of clinical supervision, it is cumbersome and difficult to establish adequate reliability for use as a measure within the context of applied research. In addition, there are several other instruments that have been used to measure MI fidelity in other settings. For example, Leffingwell (2006) created the Motivational Interviewing Knowledge and Attitudes Test, and Martino, Haeseler, Belitsky, Pantalon, and Fortin (2007) developed a nine-item, multiple-choice test to evaluate students’ knowledge, attitude, confidence, and commitment of brief motivational interviewing principles and practices. Furthermore, a number of options exist, in addition to the MITI, for measuring proficiency, such as the Motivational Interviewing Skills Code (Moyers, Martin, Cately, Harris, & Ahluwalia, 2003); the Behaviour Change Counselling Index (Lane, 2002; Lane, Hood, & Rollnick, 2008), the Independent Tape Rating Scale (Gibbons et al., 2010); the Motivational Interviewing Assessment: Supervisory Tools for Enhancing Proficiency (Martino et al., 2006); the Video Assessment of Simulated Encounters-Revised (Bell & Cole, 2008); and the Helpful Response Questionnaire (Martino et al., 2007). All of these measures except the Video Assessment of Simulated Encounters-Revised and the Helpful Response Questionnaire involve the coding practice samples. Each of these would require modification for evaluation of school personnel.

Our review of these tools offers us a perspective on the measurement of MI proficiency that we had not yet considered. Up to this point, we have relied only on the coding of audio-recorded MI interviews to assess the MI proficiency of our coaches. The instruments we reviewed reflected a variety of methods (e.g., paper-and-pencil tests, written responses to video-recorded scenarios). The application of a variety of measurement methods might lead to a more diversified training, supervision and measurement structure that we feel is necessary in school settings for effective use of MI.

What Thresholds Should Be Used to Demonstrate Proficiency?

Although additional study is required, our initial impression is that the thresholds established by the MITI (see Table 1) are appropriate to establish beginning proficiency and competency in school settings. However, not only is it important for replication studies to be conducted on this question, with First Step and other school-based applications, it is also important to determine whether there are positive empirical relations between MI proficiency and intervention participation rates, implementation fidelity, and proximal
or distal child outcomes. It would also be interesting to learn more about how educational professionals who have not been trained to use the MI approach to consult with schools for the purpose of changing teacher or parent behavior fare on the MITI. For research purposes, the ability to distinguish between MI trained and nontrained consultants may be more meaningful than achieving proficiency and competency thresholds.

Conclusion

An iterative development process designed to infuse MI into an existing Tier 2 intervention—First Step to Success—has been described in this article. In addition, we have suggested a measurement and evaluation protocol that we believe could be of great value to researchers who are developing or modifying existing interventions using an MI approach. Furthermore, we have articulated several aspects of MI applications in school settings, such as beneficial skills, training and supervision requirements, and applications in home and school settings that may represent important areas of research in the next decade in adopting MI for effective application in school settings.

The promise of MI within the context of school-based intervention research and practice is very exciting. There may be many applications that are yet to be systematically studied, such as (a) embedding MI techniques in conversations with students, parents, and teachers to encourage adoption of promising interventions; (b) increasing parent involvement in the schooling process; and (c) building collaborative relationships between teachers and parents.

We see multiple possibilities for the use of adaptations of MI within schools and educational practice, as the movement to assure the provision of scientifically based instructional practice has accelerated. Our findings suggest MI and adaptations of MI could be used to bolster the fidelity with which scientifically based instructional practices, including Tier 2 interventions, are implemented. This is particularly relevant as implementation challenges (i.e., fidelity) are inherently difficult within the field of education itself (Fixsen, Naoom, Blasé, Freidman, & Wallace, 2005). Our work with parents is equally encouraging and might serve to open the schoolhouse doors to many disenfranchised parents who have not experienced the importance of education or are alienated and lack the confidence to engage fully in their children’s education or with their children’s teachers. This is often no fault of their own but results from distrust of schools and schooling on the basis of their previous personal experience. None of these barriers are insurmountable, as many of the parents served by the intervention described herein could attest.

We believe replication is the primary vehicle or path to better understand MI proficiency related issues. Replication studies could compare results within the context of different interventions, interventionists, and training and supervision procedures. We are also interested in pilot testing...
and refining the MING. We believe there exists a need to develop a training structure for school-based personnel as well. Last, although this demonstration provides evidence that school personnel can become proficient in MI, it is critical to demonstrate that the proficient use of MI results in high levels of motivation and, ultimately, improvements in children’s academic and behavioral performance.

REFERENCES


