Published in final edited form as:

Health Educ Behav. 2012 October ; 39(5): 574–582. doi:10.1177/1090198111423679.

A Cross-Cultural Three-Step Process Model for Assessing Motivational Interviewing Treatment Fidelity in Thailand

Juline A. Koken, PhD¹, Sylvie Naar-King, PhD², Sanya Umasa, BA³, Jeffrey T. Parsons, PhD^{4,5}, Pichai Saengcharnchai, MD⁶, Praphan Phanuphak, MD, PhD⁷, and Chokechai Rongkavilit, MD²

¹Center for Motivation and Change, New York, NY, USA ²Wayne State University, Detroit, MI, USA ³Thai Red Cross AIDS Research Centre, Bangkok, Thailand ⁴Center for HIV/AIDS Educational Studies and Training, New York, NY, USA ⁵Hunter College and the Graduate Center of the City University of New York, New York, NY, USA ⁶Pramongkutklao Hospital, Bangkok, Thailand ⁷The HIV Netherlands Australia Thailand Research Collaboration, Bangkok, Thailand

Abstract

The provision of culturally relevant yet evidence-based interventions has become crucial to global HIV prevention and treatment efforts. In Thailand, where treatment for HIV has become widely available, medication adherence and risk behaviors remain an issue for Thai youth living with HIV. Previous research on motivational interviewing (MI) has proven effective in promoting medication adherence and HIV risk reduction in the United States. However, to test the efficacy of MI in the Thai context a feasible method for monitoring treatment fidelity must be implemented. This article describes a collaborative three-step process model for implementing the MI Treatment Integrity (MITI) across cultures while identifying linguistic issues that the English-originated MITI was not designed to detect as part of a larger intervention for Thai youth living with HIV. Step 1 describes the training of the Thai MITI coder, Step 2 describes identifying cultural and linguistic issues unique to the Thai context, and Step 3 describes an MITI booster training and incorporation of the MITI feedback into supervision and team discussion. Throughout the process the research team collaborated to implement the MITI while creating additional ways to evaluate in-session processes that the MITI is not designed to detect. The feasibility of using the MITI as a measure of treatment fidelity for MI delivered in the Thai linguistic and cultural context is discussed.

Keywords

cross-cultural research; HIV; MITI coding; motivational interviewing (MI); Thailand; treatment fidelity

The purpose of this article is to present a case study of a cross-cultural three-step process model for implementing a treatment fidelity monitoring instrument for motivational interviewing (MI) as part of a pilot intervention targeting HIV risk behaviors among Thai youth living with HIV (TYLWH). The treatment fidelity monitoring instrument in this case

© 2012 by SOPHE

Corresponding Author: Juline A. Koken, Center for Motivation and Change, Suite 1101, 276 Fifth Avenue, New York, NY 10001, USA, jkoken@motivationandchange.com.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interests with respect to the research, authorship, and/or publication of this article.

study is the Motivational Interviewing Treatment Integrity (MITI 3.0) coding system (Moyers, Martin, Manuel, Miller, & Ernst, 2007). The training and implementation process for using the MITI in Thailand raised several questions about linguistic and cultural issues that the MITI was not originally designed to address. The research team thus worked to balance the need for identifying and understanding issues specific to the Thai language with adherence to MITI coding protocol. As a result, the research team developed a three-step process model for preliminary MITI implementation across the United States/Thai context. The first step was to train the Thai MITI coder and establish intercoder agreement in English, in the second step, the team worked to identify cultural issues specific to the Thai language, and in the third step, the team conducted a booster MITI training and incorporated MITI feedback into supervision with the study therapist. This three-step process model may prove useful to others implementing the MITI across cultures.

The global HIV pandemic has created an urgent need for proven treatment and prevention approaches to reduce HIV risk behaviors, particularly among youth, one of the fastest growing groups of newly infected individuals (United Nations Programme on HIV/AIDS [UNAIDS], 2010). Teenagers and young adults have become the main risk groups of new HIV infection in Thailand (National AIDS Prevention and Alleviation Committee, 2010). Provision of medical treatment and services for HIV in Thailand is rapidly expanding. Antiretroviral coverage to those who require treatment based on the national guideline has increased from 4% in 2003 to 75% in 2009 (National AIDS Prevention and Alleviation Committee, 2010; UNAIDS, 2008). However, availability of these life-saving treatments alone is not sufficient to address HIV prevention and care needs for TYLWH. One recent study of TYLWH found that up to one third of participants reported less than optimal rates of adherence (Rongkavilit et al., 2007). Among the young people sampled in this study, alcohol use was common, as was unprotected sexual behavior and nondisclosure of one's HIV status to uninfected or unknown status partners. Among TYLWH, higher levels of HIV stigma, particularly perceived negative public attitudes toward HIV+ persons, are associated with reduced quality of life and higher rates of mental health problems (Rongkavilit, Wright, Chen, Naar-King, Chuenyam, & Phanuphak, 2010). Thus health care providers working with TYLWH must address not only prevalent risk behaviors among this group but also pressing mental health needs. Clearly there is a need for the provision of evidence based, yet culturally relevant, counseling approaches to promote healthy behaviors and to reduce risk behaviors in order to improve the lives of those living with HIV and reduce the spread of HIV.

Secondary prevention efforts are a critical component of fighting the HIV pandemic, and these efforts must move beyond simple provision of education and information. The potential for effective counseling interventions to affect public health is significant. However, as the majority of such interventions have been developed in the United States and other affluent Western nations, the issue of how to maintain the fidelity to the interventions once adapted cross-culturally and internationally without losing their "active ingredients" becomes challenging.

The Importance of Treatment Fidelity in Intervention Delivery

To evaluate the internal and construct validity of an intervention, treatment fidelity measures must be implemented (Perepletchikova, Treat, & Kazdin, 2007). Without assessing whether or not the intervention is being delivered as planned, it is impossible to interpret study findings at completion. Yet a recent review of more than 400 publications describing behavioral interventions found that only 12% of publications could be said to have followed a "gold standard" for measuring and maintaining treatment fidelity by reporting the use of a treatment manual, measures of protocol adherence, or strategies to improve the competence

of treatment providers (Borrelli et al., 2005). Perepletchikova et al. (2007) reviewed six prominent journals that frequently report outcome studies and found that only 3.5% of such studies reported adequate measures of treatment fidelity. The Treatment Fidelity Workgroup of the NIH Behavior Change Consortium recommends fidelity monitoring strategies to ensure that counselors meet criteria for skill proficiency, monitoring be conducted throughout the intervention to prevent “drift” in adherence to manual protocol, and training be adapted to meet the needs of diverse trainees (Bellg et al., 2004). The assessment of treatment fidelity is especially necessary when a Western-originated intervention is adapted to a different social and cultural setting in order to ensure the validity and reliability of the intervention (Bellg et al., 2004).

MI is an effective counseling and communication method for targeting HIV health behaviors such as medication adherence, safer sex, and reduction in substance use (Burke, Arkowitz, & Menchola, 2003; Hettema, Steele, & Miller, 2005; Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010). This approach draws on the therapist’s empathy and selective reinforcement of client’s statements regarding their motivation for change (Miller & Rose, 2009). This is accomplished through skilled reflective listening—conceptualized as asking open-ended questions, affirming the client, and statements selectively reflecting the client’s perspective (Miller & Rose, 2009). MI, initially developed in the United States and Great Britain (Miller & Rollnick, 1991) has been adopted widely in the United States and European nations (Burke et al., 2003; Hettema et al., 2005), yet is relatively new to Asian countries. To date, only one published study—a pilot intervention for psychiatric medication adherence—has described the use of MI in Thailand (Maneesakorn, Robson, Gournay, & Gray, 2007).

The MI intervention described in this article was conducted to target sexual risk, alcohol/drug use, and medication nonadherence among Thai youth aged 16 to 25 years, living with HIV in Bangkok. The intervention was adapted from the U.S.-based Healthy Choices, an individualized four-session MI intervention for youth with HIV in the United States, which was shown to improve their health outcomes (i.e., plasma HIV viral load; Naar-King, Parsons, Murphy, Kolmodin, & Harris, 2010; Naar-King et al., 2009). All MI sessions were conducted entirely in Thai by an MI-trained therapist and all sessions were taped. The present report presents the process model for evaluating MI treatment fidelity developed by the research team during the pilot phase of the intervention. Although many studies have found MI to be effective for improving health behaviors, delivery of the treatment often varies among therapists and across samples (Carroll et al., 2006; Madson & Campbell, 2006; McCambridge, Day, Thomas, & Strang, 2011). This is especially critical as therapist fidelity to MI techniques and style has been found to predict client behavioral outcomes (Cox et al., 2011; McCambridge et al., 2011; Moyers, Martin, Houck, Christopher, & Tonigan, 2009). Fidelity is even more critical when MI is being adapted in international settings. Therefore, a feasible cross-cultural process modeling for evaluating therapist fidelity to MI is necessary in order to determine the effectiveness of MI across cultural and linguistic contexts. The purpose of this article is to outline a three-step process model for training an MITI fidelity rater to evaluate therapist fidelity to MI techniques in the Thai setting. We specifically aimed to balance the need for evaluation of treatment fidelity with the need to identify and understand linguistic and cultural differences in communication in this new MI research context.

Description of the Motivational Interviewing Treatment Integrity Coding Instrument

The MITI coding instrument is a measure of therapist proficiency in MI skill and “spirit” (the therapist’s collaborative working style, reliance on evoking the client’s perspective,

ideas about change, and respect for the client's autonomy). The MITI 3.0 manual (Moyers et al., 2007) outlines the use of the MITI for assessing therapist competency in MI in English. A set of simple calculations (e.g., ratio of reflections to questions, global assessments of therapist empathy, and collaborative style, etc.), result in general proficiency scores of MI style and specific techniques. These scores offer feedback that may be used to guide the therapist toward targeted improvement of specific MI skills, and also may be used as a measure of overall therapist adherence to the intervention approach.

Although the MITI has been translated in Swedish (Forsberg, Kallmen, Hermansson, Berman, & Helgason, 2007), German (Brueck et al., 2009), and other languages, there have been no published studies offering a process model for implementing the MITI in Asian cultures and languages. Several advantages in using the MITI as a treatment fidelity monitoring tool include the following: (a) It offers a reliable assessment of the quality of MI delivered in a treatment session (Moyers, Martin, Manuel, Hendrickson, & Miller, 2005; Pierson et al., 2007); (b) the MITI coding system is designed to assess both specific therapist behaviors as well as an overall measure of MI style; (c) the MITI has been shown to have good sensitivity in documenting improvements in MI as a result of clinical training and is frequently used to supplement and enhance supervision by sharing the results of the coding with therapists (Moyers et al., 2005); and (d) The MITI requires only a 20-minute audio segment randomly selected from a longer counseling session to evaluate the quality of MI being delivered in the session as a whole (Moyers et al., 2005; Pierson et al., 2007).

However, there are limitations to what the MITI can detect. As it measures only therapist speech, not client responses or therapy process, the MITI can identify specific therapist behaviors but not describe in-session processes between therapist and client as its parent measure, the MISC, can do (Moyers et al., 2005). In spite of these limitations, the MITI was an ideal instrument for use in the present study due to its time and cost efficiency, its ability to offer feedback on skills for use in supervision and training, and its simple design. The research team felt that the MITI was an ideal choice for training in treatment fidelity coding across linguistic barriers commonly encountered in international research.

This article describes a cross-cultural three-step process model for implementation of the MITI 3.0 instrument as a treatment fidelity measure of MI in the Thai setting. The study was approved by the Human Investigation Committee of Wayne State University, the Institutional Review Board of Hunter College of the City University of New York, and the Institutional Review Board of Chulalongkorn University in Thailand. The MITI 3.0 includes five global ratings of therapist style: therapist empathy, collaboration with the client, respect for client's autonomy, evocation of client's perspective, and direction of the session (focus) toward the target behavior. In addition to the global scales, the MITI 3.0 measures seven therapist behaviors: (a) giving information, (b) MI adherent behaviors (such as statements of support, affirmations, and reinforcing client autonomy), (c) nonadherent behaviors (confrontation, advice giving, arguing with the client), (d) open questions, (e) closed questions, (f) simple reflections, and (g) complex reflections (statements reflecting the client's perspective, ranging from simple repeating or paraphrasing client speech, to more nuanced "hypothesis testing" statements guessing at the underlying cognitive or emotional content of client speech). MITI coders listen to randomly selected 20-minute segments of sessions, coding only the therapist's speech.

Selection, Initial Training, and Reliability Testing of the MITI Coder

During the initial 1-week MI training of the Thai therapist (a psychologist) and her supervisor (a psychiatrist experienced in MI) at the Bangkok site for the Thai Healthy Choices study, a bilingual native Thai translator was used to facilitate communication

between the English-speaking MI trainers and the Thai staff, who had varying degrees of proficiency in English. The translator was an employee of the Thai Red Cross AIDS Research Centre, where he was a peer counselor and advocate who had previously lived for several years in an English-speaking country. Thus, he was an ideal assistant during the training process as he possessed language skills to facilitate the training, as well as cultural and clinical competency gained through his experiences working in HIV services in Thailand. During the MI training the Thai translator became familiar with the basic tenets of MI practice and the therapist skills associated with competency in MI. Following this training, he was invited to be trained as an MITI coder.

The Three-Step Process Model for Implementing the MITI Across Cultural Contexts

Throughout the project, the Thai-U.S. study team collaborated to develop a three-step process model for developing MITI coding reliability while also exploring issues that are unique to the Thai cultural context that are not included in the MITI protocol. Although the MITI coding rating system was not altered for this study, the team found that additional procedures (described in “Step 2” of the process model) were necessary in order to better understand how to apply the MITI rating system in the Thai language and cultural context. We will first describe our efforts to train the Thai MITI coder (Step 1), second, we will discuss the informal “dialogue process checks” that were developed to resolve questions about the counselor/client interactions that the MITI was not designed to detect (Step 2). Finally, we will describe the booster training of the MITI coder and incorporation of the MITI feedback into the counselors’ supervision and study team discussion (Step 3).

The pilot intervention, MITI training, MITI coding, and cross-cultural fidelity evaluation described here were conducted over a 9-month period. Eleven HIV-infected Thai youth participated, and of these 10 completed the four-session MI protocol; one participant attended two sessions and then dropped out of the study. A total of 42 MI sessions were thus conducted; of these 18 were randomly selected for MITI coding (using audio recordings); a 20-minute segment of each hour-long session was randomly selected from the beginning, middle, or end of the session for rating. These 18 sessions were also translated and transcribed from the tapes to allow for discussion of cultural and linguistic issues by the full study team. Translation was checked by an additional member of the study team to verify accuracy.

Step 1: Training of the Thai MITI Coder

The initial MITI coding training of the bilingual Thai coder was conducted over the course of 5 days in April 2008, in English, at a Hunter College-affiliated research center in New York City. The trainer is an English-speaking MI trainer and fidelity expert, and is a member of the Motivational Interviewing Network of Trainers. Coder trainings followed procedures outlined in the MITI 3.0 manual by Moyers et al. (2007). During the training, the Thai coder was given an overview of the coding manual and materials, all of which were presented in English. The MITI manual was not translated into Thai as part of this research study, as the Thai trainee spoke English fluently and was able to work with the original English manual. The Thai trainee was trained on a series of coding tasks of increasing difficulty, including parsing of therapist utterances, coding the five global dimensions of MI, and coding MI-specific therapist behaviors. Coder competence at each task was assessed before proceeding to the next task. Instructional materials included the English language video sessions of MI role-play provided by Drs. Miller, Rollnick, and Moyers, which are accompanied by standardized, coded English transcripts of these sessions.

Once the Thai coder demonstrated a basic grasp of the MITI global scales and behavioral codes, he and the trainer independently wrote codes on transcript of a Thai Healthy Choices MI session that had been translated from Thai to English as a practice exercise and preliminary attempt to identify potential cultural questions regarding MITI codes. Discrepancy in codes between the Thai coder and the trainer were resolved through discussion, often involving clarification of the translated session, offered by the Thai coder, and clarification of the definitions and of the MITI codes, offered by the MITI trainer. The use of the translated Thai MI transcript helped the trainer and trainee begin to identify and discuss questions about MITI coding in a Thai context; however, the coding of this transcript was used as a learning tool, not a formal assessment of intercoder reliability. The Thai coder also attended an MITI coder trainee meeting conducted at the research center with a group of MITI trainees, all English-speaking research interns and staff. On the final day of the training, the trainer and the Thai coder independently coded an audio recording of an MI session conducted in English. This sample session had been conducted at the research center where the trainer was employed as part of an English language MI intervention. Because assessment of interrater reliability was conducted entirely in English, statistical reliability will not be reported here as we trained only one Thai-speaking coder. Thus, we have no direct way of assessing his reliability to MITI code in Thai as there were no additional reliable Thai-speaking MITI coders to compare his ratings with.

Long distance MITI coding communication between Thai MITI coder and the trainer—Following the completion of the initial MITI training, the Thai coder returned to Bangkok where he began coding the Thai Healthy Choices sessions. Moyers et al. (2007) advise ongoing reliability checks posttraining to recognize and prevent intercoder “drift” in reliability. Because of the cross-cultural nature of the Thai Healthy Choices study, collaboration between research teams in Bangkok, Detroit, and New York City; and barriers of geography, time, language, and scheduling prevented in-person coding meetings and direct assessment of Thai MITI coding. Nonetheless, the Thai coder and the trainer continued to “meet” approximately once a month following the initial training, using e-mail and Skype Internet chat to communicate about coding questions as they arose.

Not all questions appeared to be specific to the Thai study setting. For example, the trainee’s question regarding how to differentiate therapist “structuring” of the session (speech regarding session agenda, scheduling, or other matters that are not coded) from giving information or asking questions was easily resolved through e-mail clarification of which kinds of therapist speech remain uncoded. The trainer generated a list of different forms of therapist talk that are not coded in the MITI for this purpose (the recent release of the MITI “3.1” [Moyers, Martin, Manuel, Miller, & Ernst, 2009] now expands on this issue in the updated manual, which was not available at the time this research was in process). To clarify such questions and work to maintain inter-coder reliability long-distance, the Thai coder would e-mail translated portions of transcripts of the Thai MI sessions, which he and the trainer would independently mark up with codes and then compare, resolving any differences through online discussion. The coding of the translated transcript was a useful communication tool for resolving coding questions; however, this was not a formal check of reliability.

Step 2: Identifying and Resolving Cultural and Linguistic Issues

As the pilot study progressed, discussions among the study team about specific Thai language and cultural issues raised questions about how to MITI code unique aspects of Thai speech. This required the team to develop “dialogue process checks” to check client responses to the therapist’s speech in order to understand what the MITI captures, and fails to capture, about the unique characteristics of Thai language and culture. The dialogue

process checks were conducted by listening to Thai MI sessions to check client responses to therapist's speech when linguistic or cultural issues arose; the study principal investigator (PI) as well as the Thai coder both conducted these checks (as both are native Thai speakers) and then the results and coding implications were discussed with the team as a whole. The dialogue process checks do not constitute an addition to the MITI coding ratings or formal MITI coding protocol and were not a measure of coding reliability. However, these informal "checks" on in-session processes provided invaluable insight into cultural and linguistic issues specific to the Thai context and helped the team make decisions about how best to adhere to MITI coding rules in this new setting, while still working to adhere to MITI coding protocol.

The first dialogue process check was conducted in response to a linguistic issue noted by the Thai coder regarding the therapist's use of the particle "na" or "noeh." This particle is often used to "soften" or add emotion to a sentence, and can be used in the middle of a statement or at the end, with an upward inflection. Some Thai members of the team interpreted the use of this particle as adding a question word to the sentence (similar to "ok?"). A reflection that ends with an upturned vocal inflection or the addition of a word such as "right" or "okay" is coded as a closed question (e.g., "You want to reduce your drinking because of your health concerns, right?"). However, other Thai-speaking members of the team felt that this particle indicated added meaning or emotional emphasis, and depending on where in the statement the particle appears, may not always change the statement into a question. If the particle was not a question, and added emphasis or meaning to the statement, such a statement would be coded as a complex reflection. For this reason, the way in which this linguistic issue was handled would affect the MITI scores of the therapist's MI competency in the reflection-to-questions ratio and would also shape feedback to be used in supervision. Thus, it was important to gain an accurate understanding of how this particle was perceived in the local context.

The therapist's supervisor, a native Thai psychiatrist who speaks English and is experienced in MI, was consulted on this issue. He felt that the addition of "na" or "noeh" at the end of a reflection was a way of adding emotion or emphasis to the statement, and did not transform the reflection into a closed question. The study PI, who is also a bilingual native Thai, was consulted and he initially agreed with this interpretation. However, after team discussion of the issue and some uncertainty over how to code the "na" or "noeh" particle, the team decided to conduct a dialogue "process check" of how clients responded to the particles in the sessions, in order to ensure that the team's decision on this issue was correct.

The Thai coder listened (without MITI coding) to portions of 20 of the Thai (study name redacted for blind review) sessions and noted the client's immediate response following the therapist's statements that contained the particle. He found that in approximately 60% of the instances when the therapist used the particle at the end of a sentence, the client would respond with a yes or no answer. Additionally, when the therapist used the particle at the end of a statement, it was often vocalized with an upturned inflection. The "yes or no" response and the upward turned inflection, thus made it appear that this would appropriately be classified as a "closed question" and not a "reflection." However, this was not the case when the particle was used mid-statement, in which case the client usually followed the statement with further elaboration, indicating that the statement containing the particle was perceived as a complex reflection. Following this assessment of therapist's use of the "na" or "noeh" particle and client's responses, the team created a new MITI coding rule. It was decided that when this particle closed a therapist's statement, it would be coded as a closed question (similar to what is sometimes called a "reflection-turned-into-a-question," a reflective statement that ends with an upturned vocal inflection). The study team also noted that as the study progressed and the therapist received feedback and supervision on her MI

skills (described in Step 3), this phrasing seemed to occur less frequently in the subsequent sessions.

Another linguistic and coding issue raised by the study PI concerned questions worded using the “mai” form; this form is difficult to translate directly from Thai to English. The study PI described the most literal way to translate this kind of question as a kind of “question that seems open but might technically be closed.” The PI felt that perhaps this particular kind of question should not be coded as closed if this is the case. On the other hand, the MITI trainer wondered if these questions might be similar to English questions such as “Can you tell me more about that?” She felt that people often perceived these questions as being open, but they are still closed questions as they can be answered with a “yes” or “no,” and thus are coded as closed. The decision regarding whether such questions are coded as open or closed would affect the therapist’s open-to-closed questions ratio and alter her competency rating on this aspect of the MITI. In effect, the team’s concern was that in this way she might be rated “poorly” for asking questions in a culturally appropriate Thai style.

The team decided to conduct another dialogue process check to verify client’s responses to questions in the “mai” form; if they typically respond with yes or no answers, it would be treated as a closed question. If they usually responded with elaboration, however, the “mai” questions would be coded as open. The study PI reviewed five complete session transcripts in the original Thai, noting when the “mai” questions arose and how the clients responded. He found that in more than 90% of the occasions when the “mai” form was used, clients responded with a “yes” or “no” answer. The only exceptions were when the “mai” question was immediately followed by an open question (what the MITI manual refers to as “stacked questions”), in which case clients often responded with elaboration. The MITI decision rule for coding “stacked questions” containing both an open and closed question is to treat it as an open question. However, the “mai” question on its own appears to be received as a closed question by Thais, and thus is coded as one when it is not followed by an open question. In this case, the dialogue process check was useful in affirming the already existing standard MITI coding protocols. Again, the dialogue process check constituted a valuable way to explore in-session cultural and linguistic issues specific to the Thai context such as the “mai” question coding debate, although it was not itself a form of reliability assessment or an addition to the MITI scores.

Other cultural/linguistic issues identified by the team did not affect the MITI behavior counts, but appeared to be an important element for the global scales, which reflect the overall tone and spirit of the session. Thais emphasize harmonious social relations and avoid interpersonal conflict when possible. Thus, the study team felt that MI, with its emphasis on “rolling with resistance” (avoiding conflict or argument with the client) and showing empathy to the client’s perspective, would be a good fit with Thai culture. However, in Thailand, cultural norms for interaction are often shaped by social hierarchies based on age and status; health care providers may be perceived as authority figures, particularly by the youth who participated in the present study. As MI emphasizes building a collaborative alliance with the client and eliciting their perspective on their risk behaviors, the Thai therapist may need to work harder to build the collaborative, egalitarian relationship that characterizes the MI approach.

The team noted that the Thai therapist had consistently high scores on the global “collaboration” and “empathy” scales and appeared to be very well liked by the clients (so much so that they sometimes called her on the phone to check in between sessions—not an original component of the study protocol). One strategy she often used in the initial session with the client was to ask about the client’s nickname, which she would then use to refer to them in the sessions. She also sometimes referred to clients using the Thai phrase “nong,” a

friendly term that can be translated as “brother” or “sister.” In Thailand, the use of nicknames or referring to someone as “brother” or “sister” is common among friends and family members. It appeared to the team that the therapist was using more familiar, informal language with the clients as a way of “coming down out of the ivory tower” (as the study PI put it) and building a collaborative, more egalitarian therapeutic alliance. Although there is no specific behavior code for this in the MITI, the counselor’s warm and informal manner did contribute to high scores on the global scale for collaboration. The MITI 3.0 manual (Moyers et al., 2007) specifies that counselors high on the collaboration scale show clear efforts to build an egalitarian relationship and explicitly share power with the client. The cross-cultural study team felt that the therapist’s use of nicknames and other forms of informal language constituted an active effort to build a trusting relationship with the client.

Step 3: MITI Booster Training and Incorporation of the MITI Feedback Into Supervision and Team Discussion

Maintaining communication about MI coding long distance over the course of the study across barriers of geography, time zone, language and culture presented challenges to the cross-cultural research team. The use of e-mail and online videoconferencing proved to be helpful for maintaining team dialogue during the pilot study. However, in-person meetings are ideal due to the ease of communication and team cohesion that in-person interaction can foster, although economic and other barriers may render in-person booster trainings unfeasible in some circumstances. In order to conduct team dialogue about cultural issues to lay the groundwork for future projects implementing MI and the MITI in Thailand, a booster MI and MITI coding meeting was convened at the Bangkok study site in February 2009.

To prepare for this meeting, the Thai coder and the MITI trainer both coded a new English language MI session that originated from the trainer’s research site, in order to clarify differences in understanding of MITI coding rules. The Thai coder also prepared a list of questions regarding coding decision rules; for example, “How do I distinguish complex reflections from simple reflections?” These questions were addressed fairly easily through discussion and clarification. On the conclusion of the first day of the meeting, the Thai coder completed coding on an additional 20-minute English language MI sample that had also been coded by the trainer. On the second day of the booster, the trainer and the Thai coder met to compare coding results, which were highly similar and indicated a shared understanding of MITI coding (at least as it is conducted in English). Following this meeting, the Thai coder and the trainer stayed in close communication via e-mail to continue to resolve any questions or coding issues, and the team discussions continued to address cultural issues as they arose.

Following the booster meeting, the MITI coding of study sessions has provided not only a measure of treatment fidelity for the overall study but also useful feedback on the therapist’s MI skills which has been incorporated into her supervision and ongoing training. This information provided critical insight into specific aspects of the therapist’s MI practice, such as the ratio of reflections to questions, and the degree of focus of session dialogue on the target behaviors (HIV medication adherence, sexual risk behavior, or alcohol/drug use). The MITI coding thus proved to be a crucial tool for facilitating communication and feedback about therapist skills between the trainer and the therapist’s supervisor in Bangkok. The cultural and linguistic issues uncovered in the second step of the process model also provided direction to team discussion of how to interpret MITI proficiency ratings of the therapist and target skills for follow-up training and support. These discussions helped support the supervisor in his biweekly supervision meetings with the therapist, where he would offer feedback based on his review of video-recorded study sessions (not all of which were MITI coded), MITI feedback, and insight from team member consultation. These training and supervision methods follow recommendations based on research showing that

therapists need supervision, coaching, and feedback on observed sessions following an initial training workshop to demonstrate and maintain skill in implementing MI, and can benefit from both traditional in-person and distance learning approaches (Martino, 2010; Miller, Yahne, Moyers, Martinez, & Pirritano, 2004; Moyers et al., 2005).

Discussion

This article presents the development of a cross-cultural collaborative three-step process model for implementing the MITI 3.0 as a treatment fidelity tool in Thailand as part of an efficacy trial of MI for TYLWH. We believe that the model could become a useful guide for preliminary implementation of the MITI and MI to non-English-speaking parts of the world. In Step 1, the team trained the Thai MITI coder using English training materials, and practiced coding using translations of Thai study sessions to check the validity of the MITI constructs in the Thai context. In Step 2, the team explored cultural and linguistic issues that the MITI is not designed to detect by conducting dialogue process checks which were not included in the MITI ratings. These process checks helped solidify coding decision rules to accommodate unique aspects of Thai culture and language into the treatment fidelity process. In Step 3, the team maintained communication about MITI coding and helped support the Thai coder's skills by conducting a booster training. At this stage, the MITI feedback was also used in the therapist's supervision to support her acquisition of MI skills. The process model described here meets several of the recommendations outlined by Borrelli et al. (2005), including the use of a manual, measures of protocol adherence (in this case measured with the MITI 3.0), and ongoing supervision (with feedback provided by the MITI coding) as a strategy to support therapist competence and development.

In spite of the language, distance, and time zone barriers between the MITI trainer and the Thai study team, the training of the Thai MITI coder enabled the team to evaluate the quality of MI being delivered in study sessions while attending to cultural and linguistic aspects of counselor behaviors that the MITI was not originally designed to identify. The MITI was found to be useful as a tool for assessing treatment fidelity, as well as feedback for supervision and therapist development in MI skills. The three-step process model described here may prove useful for other cross-cultural treatment research projects, which often must bridge significant differences in culture and language as programs are adapted for the new cultural context. Our team discovered that online meetings were a vital part of maintaining communication over the course of the project; however, occasional barriers imposed by difference in time zone, language barriers, and technical problems with online communication sometimes impeded these meetings.

The field of implementation science offers some useful guidelines for implementing evidence-based programs in new settings (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). The pilot study described here combined the initial stages of program instillation with initial implementation. Having only trained one therapist and one MITI coder, with one on-site supervisor experienced in MI, the next stage will be to implement this program on a broader scale, scaffolding onto the existing team in order to disseminate MI for TYLWH across other sites in Thailand. However, in order to do so effectively, the team will need to ensure that the process is responsive to the unique cultural context and sustainable over the long term (Proctor et al., 2009).

Some limitations should be considered when evaluating the three-step process model described here. As only one Thai MITI coder received training for this project, we are unable to directly verify the coder's reliability in MITI coding Thai language sessions. Thus, it is possible that the resulting coding may reflect this trainee's particular style or subjectivity in MITI coding. Additionally, the Thai Healthy Choices study trained only one

Thai therapist in MI; as such, all MITI coding was conducted as an assessment of one therapist's MI skill across sessions. It is possible that a different therapist may have brought other cultural or linguistic issues to light. The MITI trainer's lack of fluency in Thai prevented her from directly evaluating the MITI coding of the Thai Healthy Choices sessions (English sample sessions were coded as a proxy measure of reliability). The use of written codes on translated transcripts helped bridge that gap by inspiring discussion of coding rules as well as cultural and linguistic issues between Thai- and English-speaking team members.

Future research and practice using the MITI across linguistic and cultural contexts would be improved through the training and employment of MITI trainers who are native speakers of the local language. The training of multiple MITI coders in the local context would improve the reliability of the MITI ratings and help maintain a rigorous level of treatment fidelity assessment. The training and implementation of local MITI teams would also enable regular, in-person coding meetings to establish reliability and help prevent intercoder drift. Consulting linguists who are highly knowledgeable about local dialects and linguistic issues particular to the location where the MITI is to be implemented would be especially useful. This would not only improve the cultural accuracy of the fidelity assessment but would also reduce the cost, language, and geographic barriers that can limit the feasibility of fidelity monitoring across cultures.

The lessons learned in developing the three-step process model presented here may prove useful in future efforts at adapting treatments and maintaining fidelity across cultures. The treatment fidelity process model presented here lends support to the feasibility of using the MITI as a measure of MI delivery outside the Anglophone/Western cultural setting in which it was initially developed and validated. This study demonstrates the feasibility of evaluating treatment fidelity as evidence-based approaches such as MI are adapted and implemented across cultures. The three-step process model for implementing the MITI as a measure of treatment fidelity for the present pilot study laid the foundation for larger scale testing of MI intervention for TYLWH. By training and conducting ongoing treatment fidelity monitoring as well as cross-cultural dialogue and adaptation of the MITI to the local context, the Thai MITI coder, the study therapist, the site supervisor, and other team members are now poised to begin incorporating the "lessons learned" presented here into future research plans.

Acknowledgments

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article

Thai Healthy Choices was funded by a grant from the NIMH (5R34MH077523-02). Additional funding for Dr. Koken was provided by the Behavioral Sciences Training in Drug Abuse Research Program sponsored by Public Health Solutions of New York City, and the National Development and Research Institutes, Inc. (NDRI), with funding from the National Institute on Drug Abuse (T32 DA07233). Points of view, opinions, and conclusions in this paper do not necessarily represent the official position of the U.S. Government, Public Health Solutions, or National Development and Research Institutes.

References

- Bellg AJ, Borrelli B, Resnick B, Hecht J, Minicucci DS, Ory M, Czajkowski S, et al. Enhancing treatment fidelity in health behavior change studies: Best practices and recommendations from the NIH Behavior Change Consortium. *Health Psychology*. 2004; 23:443–451. [PubMed: 15367063]
- Borrelli B, Sepinwall D, Ernst D, Bellg AJ, Czajkowski S, Breger R, Orwig D, et al. A new tool to assess treatment fidelity and evaluation of treatment fidelity across 10 years of health behavior research. *Journal of Consulting and Clinical Psychology*. 2005; 73:852–860. [PubMed: 16287385]

- Burke BL, Arkowitz H, Menchola M. The efficacy of motivational interviewing: A meta-analysis of clinical trials. *Journal of Consulting and Clinical Psychology*. 2003; 71:843–861. [PubMed: 14516234]
- Brueck RK, Frick K, Loessl B, Kriston L, Schondelmaier S, Go C, Berner M, et al. Psychometric properties of the German version of the Motivational Interviewing Treatment Integrity Code. *Journal of Substance Abuse Treatment*. 2009; 36:44–48. [PubMed: 18547779]
- Carroll KM, Ball SA, Nich C, Martino S, Frankforter TL, Farentinos C, Woody GE, et al. and for the National Institute on Drug Abuse Clinical Trials Network. Motivational interviewing to improve treatment engagement and outcome in individuals seeking treatment for substance abuse: A multisite effectiveness study. *Drug and Alcohol Dependence*. 2006; 81:301–312. [PubMed: 16169159]
- Cox ME, Yancy WS Jr, Coffman CJ, Ostbye T, Tulskey JA, Alexander SC, Pollak KI, et al. Effects of counseling techniques on patients' weight-related attitudes and behaviors in a primary care clinic. *Patient Education and Counseling*. 2011 Advance online publication. 10.1016/j.pec.2011.01.024
- Fixsen, DL.; Naoom, SF.; Blase, KA.; Friedman, RM.; Wallace, F. Implementation research: A synthesis of the literature. Tampa: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network; 2005. FMHI Publication No. 231
- Forsberg L, Kallmen H, Hermansson U, Berman AH, Helgason AR. Coding counsellor behaviour in motivational interviewing sessions: Inter-rater reliability for the Swedish motivational interviewing treatment integrity code (MITI). *Cognitive Behaviour Therapy*. 2007; 36:162–169. [PubMed: 17852172]
- Hettema J, Steele J, Miller WR. Motivational interviewing. *Annual Review of Clinical Psychology*. 2005; 1:91–111.
- Lundahl BW, Kunz C, Brownell C, Tollefson D, Burke BL. A meta-analysis of motivational interviewing: Twenty-five years of empirical studies. *Research on Social Work Practice*. 2010; 20:137–160.
- Madson MB, Campbell TC. Measures of fidelity in motivational enhancement: A systematic review. *Journal of Substance Abuse Treatment*. 2006; 31:67–73. [PubMed: 16814012]
- Maneesakorn S, Robson D, Gournay K, Gray R. An RCT of adherence therapy for people with schizophrenia in Chiang Mai, Thailand. *Journal of Clinical Nursing*. 2007; 16:1302–1312. [PubMed: 17584349]
- Martino S. Strategies for training counselors in evidence-based treatments. *Addiction Science & Clinical Practice*. 2010; 5:30–43. [PubMed: 22002451]
- McCambridge J, Day M, Thomas BA, Strang J. Fidelity to motivational interviewing and subsequent cannabis cessation among adolescents. *Addictive Behaviors*. 2011; 36:749–754. [PubMed: 21440994]
- Miller, WR.; Rollnick, S. Motivational interviewing: Preparing people for change. New York: Guilford Press; 1991.
- Miller WR, Rose GS. Toward a theory of motivational interviewing. *American Psychologist*. 2009; 64:527–537. [PubMed: 19739882]
- Miller WR, Yahne CE, Moyers TB, Martinez J, Pirritano M. A randomized trial of methods to help clinicians learn motivational interviewing. *Journal of Consulting and Clinical Psychology*. 2004; 72:1050–1062. [PubMed: 15612851]
- Moyers TB, Martin T, Houck JM, Christopher PJ, Tonigan JS. From in-session behaviors to drinking outcomes: A causal chain for motivational interviewing. *Journal of Consulting and Clinical Psychology*. 2009; 77:1113–1124. [PubMed: 19968387]
- Moyers TB, Martin T, Manuel JK, Hendrickson SML, Miller WR. Assessing competence in the use of motivational interviewing. *Journal of Substance Abuse Treatment*. 2005; 28:19–26. [PubMed: 15723728]
- Moyers, TB.; Martin, T.; Manuel, JK.; Miller, WR.; Ernst, D. Revised global scales: Motivational Interviewing Treatment Integrity 3.0. Albuquerque: University of New Mexico Center on Alcoholism, Substance Abuse and Addictions (CASAA); 2007. (MITI 3.0, unpublished manual). Retrieved from <http://casaa.unm.edu/codinginst.html>

- Moyers, TB.; Martin, T.; Manuel, JK.; Miller, WR.; Ernst, D. Revised global scales: Motivational Interviewing Treatment Integrity 3.1. Albuquerque: University of New Mexico Center on Alcoholism, Substance Abuse and Addictions (CASAA); 2009. (MITI 3.1, unpublished manual). Retrieved from <http://casaa.unm.edu/codinginst.html>
- Naar-King S, Parsons JT, Murphy D, Kolmodin K, Harris DR. A multisite randomized trial of a motivational intervention targeting multiple risks in youth living with HIV: Initial effects on motivation, self-efficacy, and depression. [Multicenter Study Randomized Controlled Trial Research Support, N.I.H., Extramural]. *Journal of Adolescent Health*. 2010; 46(5):422–428.10.1016/j.jadohealth.2009.11.198 [PubMed: 20413077]
- Naar-King S, Parsons JT, Murphy DA, Chen X, Harris DR, Belzer ME. Improving health outcomes for youth living with the human immunodeficiency virus: A multisite randomized trial of a motivational intervention targeting multiple risk behaviors. *Archives of Pediatrics & Adolescent Medicine*. 2009; 163(12):1092–1098. [PubMed: 19996045]
- National AIDS Prevention and Alleviation Committee. UNGASS Country Progress Report: Thailand. Geneva, Switzerland: United Nations Programme on AIDS; 2010.
- Perepletchikova F, Treat TA, Kazdin AE. Treatment integrity in psychotherapy research: Analysis of the studies and examination of the associated factors. *Journal of Consulting and Clinical Psychology*. 2007; 75:829–841. [PubMed: 18085901]
- Pierson HM, Hayes SC, Gifford EV, Roget N, Padilla M, Bisset R, Fisher G, et al. An examination of the motivational interviewing treatment integrity code. *Journal of Substance Abuse Treatment*. 2007; 32:11–17. [PubMed: 17175394]
- Proctor EK, Landsverk J, Aarons G, Chambers D, Glisson C, Mittman B. Implementation research in mental health services: An emerging science with conceptual, methodological, and training challenges. *Administration and Policy in Mental Health*. 2009; 36:24–34. [PubMed: 19104929]
- Rongkavilit C, Naar-King S, Chuenyam T, Wang B, Wright K, Phanuphak P. Health risk behaviors among HIV-infected youth in Bangkok, Thailand. *Journal of Adolescent Health*. 2007; 40(4): 358.e1–8. [PubMed: 17367731]
- United Nations Programme on HIV/AIDS. 2008 Report on the global AIDS epidemic. Geneva, Switzerland: Author; 2008.
- United Nations Programme on HIV/AIDS. Young people most at risk of HIV: A meeting report and discussion paper from the Interagency Youth Working Group, U S Agency for International Development, the Joint United Nations Programme on HIV/AIDS (UNAIDS) Inter-Agency Task Team on HIV and Young People, and FHI. Research Triangle Park, NC: Family Health International; 2010.