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## A Feasibility Study of Motivational Interviewing for Health Risk Behaviors Among Thai Youth Living with HIV

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alcohol; HIV infection; motivational interviewing; sexual behavior; Thailand

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Thailand is among the few less developed countries with successful HIV prevention among segments of the population (National AIDS Prevention and Alleviation Committee, 2010). However, the success of HIV prevention among Thai adolescents and young adults has been questionable. The highest percentage of Thai persons with AIDS remain in the age group of 25–34 years, indicating that the time of greatest HIV acquisition has occurred in adolescence and young adulthood (Thai Working Group on HIV/AIDS, 2010). Most Thai youth living

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with HIV (TYLH) acquire HIV through sexual contact (National AIDS Prevention and Alleviation Committee, 2010). In a study of TYLH, only half reported consistent condom use in the previous 30 days (Rongkavilit et al., 2007); therefore secondary prevention targeting sexual risk behaviors in TYLH are needed.

Behavioral intervention research targeting youth with HIV in less developed countries remains non-existent. An intervention that is brief, culturally acceptable, and can increase young people's intrinsic motivation to reduce risk behaviors and maintain these changes over time is critically needed for this setting. Motivational Interviewing (MI), an empirically supported behavioral counseling approach, targets an individual's intrinsic motivation for change by exploring and resolving ambivalence about behavior change while supporting the individual's self-efficacy and autonomy for making changes. The MI approach can impact the information, motivation, and behavioral skills necessary to achieve a behavior change according to the Information-Motivation-Behavioral Skills model (Fisher & Fisher, 1992). MI has been successfully shown to reduce risk behaviors among youth in developed countries (Fisher, Fisher, Misovich, Kimble, & Malloy, 1996; Spirito et al., 2004). Furthermore, Healthy Choices, an MI-based intervention, reduced plasma HIV viral load and depression among youth living with HIV in the United States (Naar-King, Parsons, Murphy, Kolmodin, & Harris, 2010; Naar-King et al., 2009). In this article, we present the adaptation of the original Healthy Choices for TYLH and the feasibility testing of the adapted Thai Healthy Choices to improve risk behaviors in TYLH.

## Method

### Adaptation of Healthy Choices for TYLH

The original Healthy Choices is a four-session individual MI-based intervention targeting the two most problematic of three behaviors: sexual risk, alcohol/illicit drug use, and HIV medication non-adherence (Naar-King et al., 2009). The MI approach, which emphasizes counselor-client collaboration, evocation of a client's ideas about change, and respect for client autonomy, is used throughout all sessions (Miller & Rollnick, 2002). The first session (week 1) focuses on eliciting the young person's view of the first problem behavior and allowing him/her to explore personal viewpoints about barriers, facilitators, or other sociocultural factors affecting risks and building motivation to initiate and maintain behavior change. The session incorporates the provision of personalized feedback of the individual's risk behaviors obtained at baseline and the consideration of a behavioral change plan. The second session (week 2) follows a similar format focusing on the second problem behavior. After the second session, the counselor prepares a letter to the youth that includes his/her statements of self-motivation and/or optimism for change. The third and fourth sessions (weeks 6 and 12) focus on renewing motivation and commitment to change, and strategies to prevent relapse.

**Adaptation procedures**—The Healthy Choices manual was translated from English to Thai by the first author, back translated to English by an independent translator, and assessed for accuracy to the original intent. Two focus groups evaluating the Thai manual were conducted, one with five Thai care providers (a male physician, a female nurse, two female counselors, and one male peer advocate) and one with five TYLH ages 16–24 years (two males, two females and one male-to-female transgender). Both groups were asked to discuss (a) the usefulness of Healthy Choices to improve a young person's risk behaviors; (b) the suitability of Healthy Choices in a Thai setting; (c) the compatibility of Healthy Choices within the social context of Thai peers, families, and Buddhism; and (d) any modification needed to increase the relevance of Healthy Choices in TYLH. The discussions in both groups were led by the first author, audiotaped, transcribed, and translated into

English. Afterward, the research team discussed the suggestions raised by the focus groups and revised the Thai Healthy Choices manual.

**Counselor training**—After revision of the manual, the counselor (a Thai psychologist with no prior MI experience) and her supervisor (an MI-trained Thai psychiatrist) participated in a 3-day training in MI from members of the Motivational Interviewing Network of Trainers with the help of a translator. The essential styles of MI were addressed, including: (a) emphasizing the spirit of MI (collaboration with clients; evocation, i.e., eliciting the client's ideas about the behavior; and supporting the client's autonomy in making decisions); (b) aiming to decrease MI-inconsistent counseling (advising, confronting, and directing the client to change); and (c) offering the teaching in a style consistent with MI (eliciting trainee perspectives through the use of open questions, affirmations, reflections, summaries, and dealing with resistance). The training included presentation of MI theory, styles, and techniques, live demonstrations of each specific skill, role play practice of MI skills in small groups, English audiovisual multimedia (digital video discs), and written handouts.

### **Pilot Testing of Thai Healthy Choices**

After the completion of counselor training, we conducted Thai Healthy Choices with TYLH attending the Thai Red Cross AIDS Research Center in Bangkok in 2008 who met the following eligibility criteria: infected with HIV, ages 16–24 years, able to understand spoken and written Thai, and not participating in the initial focus group (above). At baseline, youth completed demographics, medication adherence questionnaires, and the Timeline Follow-Back procedure that captured their sexual activities and alcohol/illicit drug use in the previous 30 days (Sobell & Sobell, 1992; Weinhardt et al., 1998). At 1 week following baseline, youth began to attend four Thai Healthy Choices sessions focusing on sexual risk and either alcohol/substance use or medication non-adherence, depending on the problem level. Sexual risk was targeted as our primary outcome for all youth because of the high rate of inconsistent condom use reported in the prior study (Rongkavilit et al., 2007). An assessment similar to the baseline assessment was conducted 1 month after the fourth session. Each session took 60–90 minutes to complete. Youth received 200 Baht (approximately \$6 U.S.) at each session as a compensation for transportation and time. The ethical review boards of all affiliated institutions approved the study. All participants provided informed consent; a waiver of parental consent was permitted for youth.

### **Treatment Fidelity Assessment**

To assess the counselor's MI proficiency and fidelity to MI, half the sessions ( $n = 18$ ) were randomly selected and rated for the quality of MI delivered in the sessions by the Motivational Interviewing Treatment Integrity (MITI) rating system using procedures for non-English speaking countries (Koken et al., 2012; Moyers, Martin, Manuel, Miller, & Ernst, 2007). We used the MITI version 3.0 for this study. The MITI 3.0 rating instrument includes five global scales that measure the spirit of MI and the counselor's focus and empathy present in the session, as well as the counselor's adherence to MI techniques (Moyers et al., 2007), which result in counselor proficiency ratings. A bilingual Thai research assistant was trained in the MITI 3.0 rating system. Both the U.S. team and the Thai supervisor reviewed the ratings and feedback was provided to the counselor by her supervisor during weekly supervision meetings with the aim to improve and/or maintain her MI proficiency while the MI sessions were ongoing.

## Data Analysis

Descriptive statistical analysis was used to describe the quantitative data. Fisher's Exact test was used to compare primary outcome variables (i.e., condom use, alcohol use while engaging in sex) between pre-intervention and post-intervention and to assess the association between alcohol use and condom use during sex.

## Results

### Focus Group Discussions

Both the care provider group and the TYLH group indicated that the MI approach described in the manual was appropriate and applicable to the Thai setting, and that MI could be an effective counseling tool for risk behavior intervention in TYLH. Both groups suggested that the number of sessions was appropriate, although some questioned if more sessions were needed for behavior change. Both groups believed that time and availability were important factors and that the MI sessions should be flexible enough for TYLH to attend. Furthermore, they indicated that the content of the session should not be excessively structured. Both groups felt that the value of family was important to TYLH; however, the TYLH group stated that families might be more important to youth in rural settings, whereas peers were more important to youth living in urban settings. The care provider group felt that the MI approach was consistent with Buddhist doctrines; however, the TYLH group indicated that there was no relevance to Buddhism in MI. The TYLH group suggested that mailing a letter (between Sessions 2 and 3) could be problematic because addresses could be incorrect, the mail system was slow, and there were concerns about breaches of confidentiality. E-mailing and short-messaging service (SMS) via mobile phones were suggested as better alternatives.

Input from the focus groups was assessed and used to inform revisions to the manual. Manual revision was minimal and included the incorporation of family and religion (Buddhism) factors as part of the exploration of youth's views. We also decided that letters would be provided by e-mail or SMS based on the youth's preference.

### Pilot Testing of the Thai Healthy Choices

Twelve TYLH were approached, 11 (5 men) agreed to participate, and 10 (91%) completed all study visits. The median age was 22.3 years (range = 17.1–24.8 years). All but two participants lived in Bangkok. The highest level of education was high school for all but two participants. Four men identified themselves as homosexual and one as bisexual. Five women identified as heterosexual and one as bisexual. All were behaviorally infected and had been diagnosed with HIV for a median of 2 years (range = 0–7 years). Median CD4+ T-lymphocyte count was 268 cells/mm<sup>3</sup> (interquartile range, 193–507 cells/mm<sup>3</sup>). Six (2 men) were receiving antiretroviral treatment at study entry. Five participants reported alcohol use but none reported illicit drug use in the previous 30 days.

On a visual analog scale of 0–10, participants reported being comfortable talking with the counselor and being honest with their answers at means of 9.8 and 9.7, respectively. Five youth agreed to receive letters by e-mail and provided e-mail addresses. However, all youth gave mobile phone numbers for contact; thus, SMS was more feasible than letters or e-mails for TYLH in this study. All stated that MI was suitable and relevant in the Thai setting. A 22-year-old female wrote, "This project is beneficial because youth usually do not view sexual health as an important issue. Having a chance to talk to the counselor makes me feel satisfied." A 24-year-old homosexual male noted, "This project is relevant to Thai youth because it makes them think about preventing HIV spread to others. I learned more about HIV and how to take care of my health from this project." A 23-year-old female who frequently drank alcohol wrote, "This project gave me guidance and motivation to make

decisions. It motivates me to drink less and have risky sex less.” An 18-year-old male recently diagnosed with HIV infection wrote, “I really like this project. The visits should be more frequent. I want this project to stay on.”

Because sexual risk behaviors were the primary outcome, we compared changes in two key outcome variables (alcohol use while engaging in sex and condom use) before and after Healthy Choices sessions (Table 1). There was a trend in a decrease in alcohol use while engaging in sex from 36% at baseline to 18% post-intervention ( $p = .087$ ), yet there was no change in the proportion of TYLH who used condoms in at least 80% of their sexual acts. Alcohol use while engaging in sex appeared to be associated with less than 80% condom use at baseline (odds ratio = 0.06, 95% confidence interval = 0.00–1.23,  $p = .087$ ) and at 1-month post-intervention (odds ratio = 0.50, 95% confidence interval = 0.02–11.09,  $p = .509$ ).

In regard to counselor’s fidelity to MI as measured by MITI coding, the counselor scored as solid competence at least 80% of the time in MI spirit, MI-adherent behaviors, and complex reflections. For open-ended questions and the overall reflection-to-question ratio, her ratings ranged from below proficiency to solid competence. Competency measures were used during weekly supervision to provide timely feedback to the counselor on specific aspects of MI techniques.

## Discussion

Our findings support the feasibility and acceptability of Healthy Choices, an MI-based behavior change intervention, for TYLH. MI skills can be effectively transferred to Thai counselors through multiple approaches, including audiovisual multimedia, didactic presentations, open discussions and role-plays, all through simultaneous English-Thai translation by bilingual staff. The counselor’s fidelity to the intervention was high, suggesting the effectiveness of training procedures, quality assurance through the MITI rating system, the availability of local supervision mechanisms, and teamwork.

Two modifications were needed to adapt Healthy Choices to the Thai context. One was the incorporation of family and religious (Buddhism) factors into MI sessions as part of the exploration of TYLH personal viewpoints with regard to their risk behaviors. This was in contrast to HIV-infected youth in the United States in the original Healthy Choices who rarely mentioned family or religious factors in relation to their risk behaviors (Naar-King et al., 2009). Family and religious factors have been shown to be relevant to HIV-related behaviors in TYLH (Rongkavilit et al., 2010). In that study, familial mutual obligation and social responsibility based on Buddhist value played an important role in youth’s adherence to antiretroviral treatment and day-to-day living with HIV. Another modification was the use of SMS to communicate with youth. SMS through mobile phones is widely used in Thailand due to its reasonable cost (3 Baht or \$0.10 U.S.). SMS has been shown to be medically beneficial in Thailand (Jareethum et al., 2008). However, there remain unanswered questions about the safety of SMS in the context of highly stigmatized conditions such as HIV and HIV-related risk behaviors. It is also unknown how SMS can be effectively utilized as part of MI intervention.

Retention of study participants was high and greater than in the U.S. Healthy Choices study (Naar-King et al., 2009). While the high retention rate may be related to the small sample, it is possible that the intervention sessions were the only outlet for TYLH to discuss their life experiences in a culture less open about HIV and with fewer resources for supportive services. Although the sample size was small, there was preliminary evidence of a post-intervention reduction of alcohol-related sexual risks. The association between alcohol use

before engaging in sex and non-condom use raised the question about whether condom use in TYLH can be enhanced by interventions targeting alcohol consumption prior to sex.

Several limitations exist in the study. First, we did not perform a formal thematic analysis of qualitative data obtained from the two focus groups. Second, the sample size in the pilot test was small. Third, most participants were from an urban setting, and the applicability of the intervention to rural TYLH is unknown. Fourth, all males in the pilot testing self-identified as homosexual/bisexual, and it is uncertain how acceptable this intervention would be for heterosexual male TYLH. Nevertheless, our sample reflected the demographics of the current epidemic in Thailand where HIV infection is increasing rapidly among young men who have sex with men (van Griensven & de Lind van Wijngaarden, 2010).

Our study suggests that Healthy Choices, a four-session individual MI-based intervention, targeting HIV-related risk behaviors is feasible and acceptable to TYLH and is ready for further evaluation in a randomized controlled trial. As access to antiretroviral treatment is increasing worldwide, the number of youth living with HIV and seeking medical care in resource-constrained settings is expected to increase. Therefore, an effective risk behavior intervention in parallel to the scale-up of antiretroviral treatment is urgently needed for the well being of youth and society.

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**Table 1**  
Changes in Alcohol Use and Condom Use Between Baseline and 1-Month Post-Healthy-Choices Intervention

	Baseline		1-month post-intervention		Comparison
	Yes	No	Yes	No	
<b>Alcohol use while engaging in sex</b>	Yes	2	2	2	$p = .087$
	No	0	0	7	
	Subtotal	2 (18%)	9 (82%)	11 (100%)	
<b>Condom use at least 80% of the time</b>	Yes	5	1	1	$p = .242$
	No	2	2	3	
	Subtotal	7 (63.6%)	4 (36.4%)	11 (100%)	

*Note.*  $p$  value was estimated by Fisher's exact test.