Published in final edited form as:

Prev Sci. 2013 August ; 14(4): 400–410. doi:10.1007/s11121-012-0301-6.

Cultural Adaptation of an Intervention to Reduce Sexual Risk Behaviors among Patients Attending a STI Clinic in St. Petersburg, Russia

Lauretta E. Grau^{1,2,3}, Tatiana V. Krasnoselskikh⁴, Alla V. Shaboltas⁵, Roman V. Skochilov⁵, Andrei P. Kozlov⁵, and Nadia Abdala¹

¹Yale University School of Public Health

³Yale School of Public Health, 60 College Street, New Haven, CT 06520-8034, (203) 785-2904

⁴Pavlov State Medical University, St. Petersburg, RUSSIA

⁵Saint Petersburg State University, St. Petersburg, RUSSIA

Abstract

Cultural adaptation is an important step in the process of implementing health promotion interventions that, having been proven to be effective in one culture, are being applied in another. This study describes the results of a formative investigation to culturally adapt a STI/HIV risk reduction intervention for use in St. Petersburg, Russia. Analyses of data from brief elicitation interviews, focus groups, community experts, and a pilot test of the adapted intervention identified environmental, cognitive-information processing, and affect-motivation factors that needed to be addressed during the adaptation process. The participant/counselor relationship was adapted to reflect a hierarchical (cf collaborative) relationship in order to accommodate Russian expectations about patient interactions with healthcare experts. Key skills building activities (e.g., identification of personal risk behaviors, role-playing) were approached gradually or indirectly in order to maintain participants' engagement in the intervention, and close-ended questions were added to assist participants in understanding unfamiliar concepts such as "triggers" and self-efficacy. Information about the prevalence of HIV/STI infections and alcohol use included data specific to St. Petersburg to increase the personal relevance of these materials and messages. Intervention components were tailored to participants' risk reduction and informational needs. No gender differences that would have justified adaptation of the intervention approach or content were noted. Examples of specific adaptations and the key issues to attend to when adapting behavioral interventions for use in Russian clinical settings are discussed.

Keywords

cultural adaptation; sexual risk behavior; HIV; STI; alcohol

²Corresponding author: lauretta.grau@yale.edu.

Introduction

HIV prevalence in Russia remains relatively low, but the epidemic is expanding rapidly, with the estimated number of infected individuals having surpassed one million in 2008 (Cohen J, 2010; Elovich R & Drucker E, 2008; Goliusov AT *et al.*, 2008; UNAIDS, 2006, 2008). In addition, alcohol consumption in Russia is among the highest in the world (Chambers CD *et al.*, 2006; Grogan L, 2006; Pridemore WA & Chamlin MB, 2006; Tomkins S *et al.*, 2007). Its consumption in conjunction with sex (Lowndes CM *et al.*, 2003; Niccolai LM *et al.*, 2009) and a lack of knowledge about transmission risk for HIV and sexually transmitted infections (STIs) (Benotsch EG *et al.*, 2006; Takacs J *et al.*, 2006) has the potential to fuel an epidemic of STI and HIV infections. “Alcohol and HIV Risk Reduction in St. Petersburg, R.F.” is a longitudinal study evaluating the efficacy of a clinic-based STI/HIV intervention to reduce alcohol-associated STI/HIV risk and promote condom use. We are unaware of any publications concerning the cultural adaptation of behavioral interventions for use in Russian clinical settings, and therefore cultural adaptation to the Russian context comprised the initial phase of this project.

Many HIV prevention behavioral interventions have proven effective in reducing HIV risk associated with unprotected sex and substance use (Center for Disease Control and Prevention, 2001; Lyles CM *et al.*, 2007; Merson MH *et al.*, 2000; Mullen PD *et al.*, 2002). However, a failure to take into account local contexts and cultures can compromise the success of these interventions and suggests the need for cultural adaptation as a preliminary step when testing an intervention in a new country or population. A review of a family-based health promotion intervention adapted for different U.S. populations (e.g., rural, African Americans, Hispanics, Asian/Pacific Islanders, Native Americans) found that retention rates for the adapted interventions were usually superior to that of the original intervention although the effectiveness may have been the same as or slightly less (Kumpfer KL *et al.*, 2002) than the original intervention. When there is a compelling need for a given health promotion intervention and none exists that targets that particular culture, implementation of a culturally adapted intervention with equivalent or slightly lower efficacy may be a viable option until a more effective intervention is developed and tested in the targeted population.

Although many published recommendations concerning cultural adaptation exist, consensus is lacking about the specific steps in the adaptation process (Resnicow K *et al.*, 2000). A key task is to consider the cultural values and context within which the adapted intervention is to be implemented (Griner D & Smith TB, 2006) while simultaneously ensuring fidelity to the original intervention content (Backer TE, 2001; Castro FG *et al.*, 2004; Green L & Glasgow R, 2006). Other recommended tasks include assessing the acceptability of the intervention’s visual materials (Stauder A *et al.*, 2010), involving local experts and members of the targeted community (Resnicow K *et al.*, 2000; Stauder A *et al.*, 2010), and having an appreciation of any unique communication style common among the target population (Resnicow K *et al.*, 2000). Messages may need to be adapted to incorporate core cultural values such as family or spirituality or respect for authority or to alter the manner in which intervention topics are introduced (i.e., gradual vs direct). Three key dimensions – (1) cognitive-information processing or the target population’s ability to understand the key

intervention messages, (2) affect-motivation or the level of acceptance of the intervention, and (3) environmental factors that may influence participation – were considered when culturally adapting the intervention for use in Russia (Castro FG et al., 2004).

The goal of this paper is to describe the cultural adaptation process and the major issues that were addressed when adapting the intervention. The intervention, originally developed in the U.S., was chosen for adaptation for use in Russia for two reasons. First, it is based on the Information-Motivation-Behavioral Skills (IMB) model (Fisher JD & Fisher WA, 1992, 2000), a well-validated theoretical model for predicting health promotion behaviors (including HIV prevention behaviors) and has been used to develop effective behavioral interventions for use throughout the world (Ali SS & Manongi RR, 2010; Amico KR *et al.*, 2009; Ferrer RA *et al.*, 2010; Malow RM *et al.*, 2009; Nostlinger C *et al.*, 2011; Osborn CY *et al.*, 2010c; Osborn CY & Egede LE, 2010a; Osborn CY *et al.*, 2010b; Peltzer KK *et al.*, 2011; Shattuck D *et al.*, 2011; Tipwareerom W *et al.*, 2011; Zhang H *et al.*, 2011); hence, it has proven applicability across many populations and cultures. The IMB model states that HIV information (i.e., knowledge about transmission, risk, and prevention), motivation to engage in HIV preventive behaviors, and behavioral skills are necessary prerequisites to engaging in such behaviors. Factors within the motivational construct include assessment of individuals' attitudes about HIV and HIV prevention behaviors, perceptions about social norms, and intentions to engage in HIV prevention behaviors. The behavioral skills construct covers perceived self-efficacy to engage in specific HIV preventive behaviors, belief in one's behavioral control in preventing the spread of HIV, and individuals' ability to engage in these behaviors. The latter is typically addressed through skills building exercises. Second, a specific intervention, based on the model and developed for use in the U.S. and demonstrated to be effective in promoting HIV risk reduction behavior change including those associated with alcohol consumption (Kalichman SC *et al.*, 2007; Kalichman SC *et al.*, 2008), has been successfully adapted for use in South Africa (Mathiti V *et al.*, 2005). The South African intervention, "Phaphama", was selected as the more appropriate version for cultural adaptation for use with Russian STI clinic patients because: it (1) included all core elements of the original intervention, (2) was specifically developed for STI clinic patients, (3) was an individual intervention rather than a group intervention which was thought to be more appropriate for Russian participants, and (4) was a single-session intervention lasting 60 minutes. A comparison of the original and Phaphama interventions is provided in the first two columns of Table 1.

Methods

Setting

St. Petersburg is comprised of 18 districts and has one central city and 15 district STI outpatient clinics that provide gynecologic, urologic, and STI screening and treatment services to both sexes and offer anonymous HIV testing to all patients. The intervention was conducted at the Genitourinary Department of the Kalininsky District Dispensary for Skin and Venereal Diseases (henceforward referred to as STI clinic) which was selected because it is easily accessible by public transportation, had adequate numbers of patients and staff

who were interested in participating in the study, and had private, dedicated space for this project.

Conceptual Model for the Cultural Adaptation Process

The cultural adaptation process sought to identify those aspects and components of the intervention requiring modification. We assessed the cultural appropriateness of the overall intervention, environmental and contextual factors that could influence its successful implementation within the clinic, and the acceptability of specific messages and activities. A conceptual model based on Castro et al. (Castro FG et al., 2004) (See Figure 1) was used to guide the research.

Participants as well as research staff familiar with the clinic's infrastructure and physical facilities discussed environmental factors such as how to best integrate the intervention within the existing clinic activities. Participants were asked about the adequacy, degree of privacy, attractiveness of the physical space allocated for the intervention, potential interest in participating in the intervention, ideal interviewer characteristics, preferred times for scheduling the intervention session, and preferred duration of the intervention session. Examples of questions include "What kind of reasons could make you or your friends interested in participating in the intervention?", "What should be done so that you could be confident that information about yourself is protected?", and "We are trying to find out what type of person should do the intervention. Does it make any difference if it's a doctor, a psychologist or a social worker, for instance?".

The intervention materials were then translated as part of assessing cognitive-information processing factors. The translated materials included an Interviewer Guide and a Personal Plan brochure. The Interviewer Guide contained a script for interviewers to use during conversation about the key components of the intervention and a copy of all visual materials used during the intervention. The Personal Plan brochure included information about HIV transmission and prevention, schematics about STI/HIV risk and problem drinking, and pages in which participants identify and prioritize personal HIV prevention goals. At the end of the session the brochure remained with the participant. Bi-lingual members of the Russian team, all experienced in working with the target population, translated the materials into idiomatic Russian; these were then reviewed by clinic patients and a Community Advisory Panel (CAP) to ensure that the general meaning of the translated messages were consistent with the original text (i.e., semantic equivalence) while also taking into account cultural factors that make it difficult to use a literal translation of the original text (i.e., content equivalence).

Assessment of affect-motivation factors involved the identification of Phaphama components that were consistent with or differed from the prevailing local cultural beliefs and practices. This step included identifying what HIV information was needed and relevant to the Russian epidemic, identifying acceptable methods of providing feedback to participants, and determining the acceptability of intervention exercises (i.e., setting goals for risk reduction, sexual communication, and condom skills) and visual materials (i.e., format and content). Examples of questions included "How often and in what situations do you use a condom with your permanent sex partner?", "How often do you consume alcohol?

If you recall the sexual relationships that you have had in the past three months, how often has it happened that you would consume alcohol before sex?”, and “What is your opinion about using condoms?”.

Participants in the Adaptation Process

Participants included STI clinic patients and CAP members (a panel of substance abuse treatment clinicians as well as members of the substance abusing community). Inclusion criteria for clinic patients were: (1) over 18 years old, (2) self-report of having consumed at least one alcoholic beverage during the previous month, and (3) seeking consultation for genitourinary symptoms or STI/HIV voluntary counseling and testing. Although the sample was a convenience sample, we provided comprehensive coverage of clinic hours to minimize potential for selection bias. Most patients were referred to the study by two clinic physicians with rotating schedules which permitted referral during day and evening clinic hours. Key informants were invited to join the CAP based upon their clinical expertise or substance abuse experience.

Procedures

Data were collected via four activities: (1) brief elicitation interviews with members of the target audience, (2) a meeting of the CAP, (3) focus groups, and (4) pilot testing for final feedback concerning the cultural relevance and acceptability of the adapted intervention. The intervention was then finalized prior to conducting the planned randomized controlled trial to assess intervention efficacy.

1. Brief elicitation interviews—STI clinic patients participated in individual audio-recorded interviews, each lasting approximately 30 minutes. The purpose was to collect data about Russian patients’ sexual practices and HIV-associated risk behaviors such as multiple sexual partnerships, drug and alcohol use, alcohol- and drug-related sexual risk behaviors, and lack of condom use, and to assess feasibility (e.g., potential interest in participating in the study and intervention, ideal interviewer characteristics) and logistics (e.g., optimal types of incentives, recruitment strategies, transportation needs).

Two separate processes were used to analyze these data. In the first, two members of the Russian research team independently coded all transcripts for major themes, then met to reach consensus about any coding discrepancies. In the second process, two other members of the Russian research team independently reviewed the audio-recordings twice, first to obtain a general impression of participants’ perceptions about logistical and feasibility issues and then to identify the specific elements requiring adaptation based on participant input. The interviewers were also queried about their general impressions of the interviews. In a final meeting, the findings were discussed by all members of the Russian and American research team, and consensus was reached that saturation had been achieved, and no further interviews were needed.

2. Community Advisory Panel—After all of the brief elicitation interviews and one focus group session had been completed and analyzed, the Russian research team met with the CAP for approximately two hours to review and discuss possible revisions to the

intervention format and materials and to the focus group guide with the goal of further improving the subsequent focus group sessions. The meeting was not audio-recorded; the research team took notes and met immediately after the session to discuss the meeting and create a summary report of the proceedings.

3. Focus groups—Participants were STI clinic patients. The one-hour sessions were led by trained facilitators on the Russian research team, audio-recorded, and subsequently transcribed. Given the potential sensitivity of discussions about sexual practices, substance use, and gender roles, it was felt that single-sex groups would encourage more frank and open discussions. The purpose of these meetings was to collect additional data concerning intervention feasibility issues and to assess the appropriateness and acceptability of modifications already made to the intervention based on the preliminary data from the brief elicitation interviews and CAP meeting. Each member of the Russian team independently reviewed the audio-recordings and transcripts and met with the facilitators to discuss the findings and revise the materials prior to the next step in the adaptation process.

4. Pilot test of the culturally adapted intervention—Following completion of analyses of all data from the first three activities and revision of all materials, the culturally adapted intervention was delivered to clinic patients in individual, audio-recorded sessions of approximately 90 minutes duration. During the intervention, they discussed their knowledge and perceptions about HIV/AIDS, STIs, alcohol consumption, and risk behaviors. They also engaged in exercises to increase behavioral skills (e.g., condom application exercise, role-playing), and motivational interviewing was used to increase their motivation to engage in risk reduction behaviors. The goal of motivational interviewing is to focus discussion on and resolve participants' ambivalence about engaging in risk reduction behaviors, thereby increasing the potential for behavior change (Miller WR & Rollnick S, 2002, 2010; Motivational Interviewing Network of Trainers (MINT), 2009). Additional time beyond the 60-minute intervention was needed in order to collect data about participants' experience and opinions of the intervention as well as feasibility issues related to implementation of the intervention.

5. Finalizing the intervention—Back-translated materials were systematically compared to the Phaphama intervention by two members of the Yale research team in order to identify the specific ways in which the documents had been modified for use in Russia.

The elicitation interviews, focus groups, and pilot tests were conducted anonymously by three trained researcher with backgrounds in psychology, sociology, or communications. Personal identifiers were removed during verbatim transcription in Russian (at BMC) and then translated into English by translators whose first language was Russian (at Yale).

All participants provided informed consent prior to their interview. STI clinic patients received free condoms and STI/HIV prevention brochures and the equivalent of US\$10 in convenience store vouchers as reimbursement for participating in the study. CAP members received no reimbursement. IRB approvals for the study were obtained from the Biomedical Center (BMC) IRB and Yale Human Investigations Committee.

Data Analysis

Given the relatively short time frame for the cultural adaptation task, all interviews were evaluated as they were completed. The existing intervention model was refined using analytical induction and comparative analysis (Glaser B & Strauss A, 1967; Strauss A & Corbin J, 1998) to identify common patterns and themes central to the research objectives. This involved an iterative process of formal review of an initial set of interviews, development of a conceptual scheme related to the IMB model and alcohol risk, and subsequent modification based on analysis of subsequent interview data. Data concerning logistics, intervention acceptability, and level of comprehension of key intervention content were also analyzed. A list of alcohol and sex risk reduction strategies suggested by participants and not already included in the intervention was compiled and rated by the research team in terms of each strategy's relative effectiveness in preventing HIV/STI infection; these were then used to create a more culturally relevant list of risk reduction strategies for use in Russia. "Negative" instances that did not fit initial constructs were purposively sought in order to expand, adapt, or restrict the original conceptual scheme. The goal was to construct a framework of respondents' experiences and intervention needs and to develop approaches to specifically address these needs. The data were independently reviewed by members of the research team and then discussed as a group until consensus was reached concerning the key issues to emerge from the data. The process was repeated until no new information emerged (i.e., saturation) from subsequent interviews.

Results

Characteristics of Participants in the Adaptation Process

Participants involved in activities concerning the cultural adaptation process were either STI clinic patients or STI/substance abuse experts (See Table 2). All participants, regardless of activity, were ethnic Russians. Most patients in the brief elicitation interview task reported seeking clinic services for either a suspected STI or follow-up treatment of a previously diagnosed STI ($n=20$), having a steady partner ($n = 20$), and not using condoms with their steady partner in the previous three months ($n = 18$). Alcohol consumption associated with sexual activity was common, with only five patients not reporting alcohol consumption prior to sexual activity during the past three months. The CAP included a physician (narcologist), three substance abuse treatment specialists (2 psychologists and a social worker), and three substance abusers (2 drug abusers and a homeless alcoholic). Four, single-sex focus groups were convened (4 members/group); the age range was 18–45 years and 25–50 years, respectively, for the men's and women's groups. Eight females and seven males, all of whom were STI clinic patients, participated in the pilot test.

Environmental Factors

Participants discussed the clinic's physical environment and infrastructure; most patients in the brief elicitation interview task and the CAP deemed it an appropriate venue for the intervention. CAP members recognized that clinics are organized to optimize clinicians' schedules, with long waits for patients as a consequence. The CAP discussed possible ways in which to make efficient use of patients' time and concluded that patients would only be willing to devote an additional 20–30 minutes to meeting with the counselor at the time of

their initial clinic visit; this was corroborated by the clinic patients. Since the intervention lasts one hour and could not cover all necessary components in less time, it was decided to advise potential participants of this during the screening process so they could elect to return for the intervention at a later time.

Concerning the method of delivery of the intervention, the decision to provide the intervention as a private, individual session was further supported by feedback from the STI patients. Although few were familiar with procedures for informed consent and protection of participant confidentiality, patients expressed little concern about these procedures once they were explained, provided that the intervention occurred in private, individual sessions.

The intervention training and information needs of the intervention staff were examined. Behavioral interventions are uncommon in Russia and therefore the behavioral counseling section was expanded. It included detailed and concrete descriptions of the role of the counselor and techniques to be employed when interacting with the participant (e.g., creating a safe environment, not attempting to convince or argue, identifying contradictions, reducing resistance). The Guide was streamlined to render it more user-friendly but augmented to include a more concise, but no less complete, description of motivational interviewing. It omitted the risk reduction plan and gave less detail about how to elicit self-motivational statements than the Phaphama version. Instead, additional training resources were used for training on motivational interviewing and the IMB model (Brown LK & Lourie KJ, 2002; Miller WR & Rollnick S, 2002; Motivational Interviewing Network of Trainers (MINT), 2009).

Finally, although recruitment considerations may seem extraneous to the cultural adaptation process, they can be critical in intervention adaptation studies and was therefore discussed with participants. The CAP believed that briefing clinic staff about the study and intervention would be critical to the success of patient recruitment. They recommended that clinic staff receive detailed information about the study. The Russian research team leader initially met individually with each clinician to explain the study and distribute written materials concerning the inclusion criteria. Thereafter, presentations about the study occurred regularly at monthly staff meetings. Incentives were also believed to be critical to participant recruitment. Participants in the brief elicitation interviews suggested food, cosmetics, condoms, vitamins, clothing such as caps or tee-shirts, and HIV/STI prevention brochures as suitable incentives. It was decided to provide HIV/STI prevention brochures and coupons, redeemable at local convenience stores, the latter permitting participants to get whatever they wanted.

Cognitive-Information Processing Factors

The target audience for the intervention is adults; the general clinic policy on the language level of written materials for patients is that it should be at a ninth-grade reading level. Lay, rather than medical, terminology was used to describe HIV and alcoholism prevalence rates and symptoms.

Several modifications were made in order to ensure the semantic and content equivalence of the intervention. Feedback about the translated materials from clinic patients and the CAP

indicated that some terms concerning sexual practices were confusing (e.g., the meaning of “dry sex”, “petting”, “fingering”) and required clarification. Participants suggested using the phrase “high risk drinking” rather than “problem drinking” or “alcohol abuse”, as it has a less pejorative connotation and therefore would be more acceptable to participants. Counselors could then discuss the topic (a key component of the intervention) without implying that the participant’s drinking style would be characterized as problematic or abusive. Reference to “psychologist” or “psychological support” was reframed as “counselor” or “counseling” based on feedback that participants would expect to receive psychological counseling for emotional problems as part of any project that involved a “psychologist” or “psychological intervention.” By contrast, terms such as “counselor” or “counseling” did not carry such expectations and therefore deemed more appropriate terminology as the intervention is not intended to be psychotherapy. A question at the beginning of the session in the Phaphama version, “How do you feel right now?” was also omitted in order to further reduce the potential for participants to view the session as an opportunity to discuss personal problems unrelated to HIV/STI risk, alcohol use, or STI treatment.

Affect-Motivation Factors

Both the patients and the CAP were enthusiastic about the intervention materials and content. They considered it to be an important topic, particularly for young adults who may minimize the potential negative consequences of alcohol consumption and unprotected sex. A review of the data revealed no gender differences in clinic patients’ willingness to discuss their risk behaviors, attitudes about the topics covered in the intervention, or need to tailor intervention approach or messages.

Cultural norms appeared to influence acceptability of the intervention in terms of the general approach to discussions and the counselor/participant relationship. Clinic patients were not forthcoming when responding to open-ended questions, and several close-ended questions were substituted. For example, instead of asking “What do you know about STIs?”, the Russian counselor asks the participant to list the names of STIs and then STI symptoms, after which the counselor provides a brief explanation of STI classification and symptomatology. Interview data also suggested that notions of patient empowerment and provider/patient collaboration are not widely understood or accepted in traditional Russian healthcare settings. To be consistent with the cultural expectation of “learning from the expert” when seeking healthcare, interactions were more formal and didactic in the Russian version. For example, the counselor assumes the role of expert when discussing topics such as STI symptoms and treatment, HIV risk, and prevention strategies.

Modifications based upon data suggesting that cultural norms could influence specific intervention topics or activities covered the provision of information about STI/HIV risk and prevention and alcohol risk and the approach to some intervention activities. While participants and CAP members were very enthusiastic about providing participants with written STI/HIV information that could be reviewed later on at participants’ convenience, they also noted that references to international data and studies are often mistrusted or viewed by Russians as not personally relevant. Hence, to improve acceptability of the

intervention materials, only information about STI/HIV prevalence, resources, and websites that pertained to Russia or St. Petersburg was included in the Personal Plan brochure. Instead of including two diagrams about the prevalence (based on the AUDIT scale) and physical consequences of problem drinking that appeared in the Phaphama Personal Plan, the Russian version of the Personal Plan used data on drinking rates of STI clinic patients that were collected in a previous study. The rationale for this decision was two-fold: (1) participants had difficulty relating to the AUDIT score's meaning since it is not widely used in Russia and (2) experts felt that it would be more meaningful for participants to see where they fell on a drinking spectrum for their fellow patients. Participants who may have under-reported alcohol use during the interview could then contextualize their consumption, mentally assess their position on the pyramid, and privately reflect upon their own alcohol use and HIV/STI risk.

Intervention content was also modified to be consistent with Russian medical views. This included introducing the concept of "latent infections" when Chlamydia is untreated, classifying scabies, pubic lice, and infections caused by *Mycoplasma hominis* and *Ureaplasma urealyticum* as STIs, and revising a diagram depicting the continuum of STI/HIV risk. Behaviors classified as low risk in the Phaphama version were re-classified as medium risk in the Russian version; group sex was added as a high risk activity and dry sex with condom as a medium risk. Furthermore, Russians often attempt to self-treat genitourinary symptoms, and counselors were instructed to specifically encourage seeking medical attention for these problems.

Four intervention activities in the original intervention – recognizing alcohol as a trigger for unprotected sex, role-playing condom negotiation, applying a condom to a penile model, and goal setting – were particularly challenging for Russian participants. Alternative strategies that were more consistent with existing cultural norms were developed to address these core elements of the intervention. Participants were unfamiliar with the concept of "triggers"; once explained, the task of having participants identify how alcohol could be a trigger for unprotected sex needed to be approached gradually and with considerable assistance from counselors. Questions to assist participants in recognizing and understanding their triggers and internal processes during risk situations were added to the Russian version. These included "What did you think at the moment when you just met that person?", "How soon did you decide to have sex with that person?", "How strong were your emotions when you thought about intimacy?" and "Did you plan to have sex, or did it all happen spontaneously?" To further focus participants on alcohol risks (and since illicit substance use is less than 2% in this patient population), the Russian version only mentions "alcohol" and not "substances" when discussing triggers.

Russians are unfamiliar with role-playing exercises or being asked by a healthcare clinician to demonstrate their ability to perform actions such as applying a condom to a penile model. These exercises are key elements of the intervention; consequently, the intervention was adapted to permit a more gradual and indirect approach to these novel tasks. Hypothetical risk situations were used to introduce the topic of condom negotiation rather than attempting to use actual risk situations that the participant may have previously described. In so doing, the role-play initially appeared to be an academic exercise, and the counselor was then able

to gradually focus discussion on the participant's actual risk situations. Instructions to counselors in the Phaphama role-playing section stressed the importance of having the participant articulate that there will be no sex without a condom. In the Russian context, insistence upon making such statements was considered "too pushy" by many participants. Thus, the Russian version did not require the "no condom, no sex" statement as the ultimate goal of the role-play exercise. Alternative strategies to achieve successful condom negotiation were explored with each participant instead. A take-home list of reminders and sample statements about how to talk with a partner about safety were also added to the Personal Plan to reinforce what had been learned during the intervention session. For those who were reluctant to perform the condom use exercise, the counselor initially described the appropriate steps and then encouraged the participant to try it on the model. As a last resort, the counselor would first demonstrate it to the participant.

Participants' ability to set personal goals to reduce risk depended upon their having a clear understanding of the contexts in which they were personally most likely to engage in risk behaviors. Many participants were reluctant to discuss their own experiences with alcohol-associated unprotected sex, and a list of hypothetical risk scenarios that had been prepared from risk situations described during the brief elicitation and focus group interviews was used to initiate discussion. Counselors could then gently encourage participants to identify their own risk behaviors and set goals to reduce their risk of infection.

Finally, the cultural adaptation process led to several additions and deletions to the original intervention. The CAP and research staff agreed that it would be useful to add to the Personal Plan a figure depicting one's link through the current sex partner to infection risk from the partner's previous sex partners, a detailed diagram of the correct manner in which to put on a condom, photos of different brands of condoms, and examples of appropriate and inappropriate lubricants available in Russia.

Information about HIV stigma (i.e., the phenomenon of discriminating against individuals known to be HIV-positive) and female condoms in the Phaphama Personal Plan were omitted since the former is not a pervasive problem among STI clinic patients and the latter have limited availability and are expensive in Russia. Clinic patients and the CAP thought that photographs of STI lesions in the Phaphama version had little informative value and, as graphic appeals to fear, were counterproductive. They were removed from the main portion of the Intervention Guide and placed in a backup section for participants who wished to see images of symptomatic untreated STIs symptoms. Extant Russian HIV myths (e.g., one can be infected with an STI or HIV by using a public bathroom or shaking someone's hand) were substituted for South African myths.

Discussion/Conclusions

The clear challenge to the ultimate success of any cultural adaptation is to maintain the participant's interest and engagement in the intervention while preserving fidelity to the core components of the intervention. These components must, therefore, be tailored to the local style of communication, values and beliefs, and environmental factors (i.e., the fit). As noted in the third column of Table 1, the core components of the intervention remained essentially

the same as in the original and Phaphama versions. This study is the first to systematically examine the cultural adaptation process for a behavioral intervention implemented in Russia. While the reported adaptations may not apply exactly to other interventions, populations, or regions, the reported processes should be considered when adapting other interventions for use in Russia and possibly other countries of the former Soviet Union.

Environmental and cognitive-information processing factors were examined extensively in order to ensure easy integration of the intervention into the existing clinic environment and the content and semantic equivalence of the translation. Unfamiliar terms for specific sexual practices were clarified as this was a critical aspect of the adaptation. The duration of an intervention session should always be considered as part of any cultural adaptation process, and if necessary, a compromise should be made between the desired amount of time to be allotted and that which is necessary to accomplish the key intervention activities. The duration and number of intervention sessions may vary depending on participants' needs and clinical settings. For example, in the current study, it was critical to the success of the adapted intervention that the session should last no more than 60 minutes.

The major portion of the adaptation process concerned affective-motivation factors (i.e., identifying cultural norms that influence intervention acceptability). Although participants may have preferred a didactic presentation on STI/HIV prevention, active participant involvement is a key component of the intervention. Hence, counselors needed to help participants feel comfortable and engaged during the session. As noted in the third column of Table 1, we modified the participant/counselor relationship to be consistent with existing cultural norms about patient/provider interactions (i.e., more formal and hierarchical), moving from a collaborative relationship to one in which the counselor often assumed the role of expert. As such, counselor actively directed the conversation and used focused, close-ended questions rather than general and open-ended ones to involve participants in thinking about how unfamiliar concepts such as "triggers" and self-efficacy applied to their own lives.

Another adaptation concerned cultural norms about role-plays or discussions of alcohol use (Gruenewald PJ & Treno A, 2006). Clinic patients' reluctance to engage in either may have been due to a lack of familiarity with the former or cultural proscription about the latter and was overcome by approaching these tasks gradually and indirectly. As noted under "Behavior" in the third column of Table 1, role-plays were accomplished by gradually transitioning from a discussion of hypothetical risk situations to examining the participant's actual risk behaviors. Similarly, it was necessary for the counselor to gradually introduce the topic of alcohol use in order to minimize resistance.

In order to render interventions culturally acceptable, local context needs to be assessed carefully (Griner D & Smith TB, 2006) so that topics with little relevance to the local context and not central to the intervention can be omitted. The intervention contained only local information about HIV, alcohol use, and resources as participants expressed distrust of references to international data and studies. Additional information about non-HIV STIs was added in response to participants' view that this was both highly relevant and desired information. Details about HIV/STI treatment, female condoms, photographs of STI lesions,

and HIV stigma were omitted (see “Motivation” in the third column of Table 1). These topics were deemed less important to address within the 60-minute timeframe than helping participants to recognize their own HIV/STI risk.

Several limitations to this study should be noted. As a convenience sample with a relatively small sample size, the findings may have limited generalizability. To compensate, we collected in-depth information from community experts, clinicians, and clinic patients to obtain multiple perspectives about elements of the intervention needing adaptation. Another limitation is that the STI clinic approved of this study, and it is possible that challenges not identified during the current study could be encountered in less supportive environments.

In summary, cultural adaptation is critical to the process of implementing health promotion interventions that have proven effective in one culture to that of another (Kumpfer KL et al., 2002) and should be completed prior to any attempt to test intervention effectiveness in the new culture. Without this, interventions may be found to be ineffective when, in fact, the problem may be one of a less-than-optimal cultural adaptation. A randomized controlled trial is underway at present, and the efficacy of key characteristics of the culturally adapted Russian intervention will be measured and compared to the findings from the original intervention.

Acknowledgments

This work was supported by Grant Number R01AA017389 PI: N Abdala) from the National Institute on Alcohol Abuse and Alcoholism. We thank Roman Dyatlov, Yulia S. Levchenko, Natalia V. Nold, Kevin Irwin, and Elena V. Nuciforo for their help with the preparation of the interview guides, translation, and the initial analyses of the qualitative data. We are also grateful to Demetria Cain for her help in training the counselors and in reviewing the culturally adapted scripts and to Wilson R. Palacios for his invaluable advice in conceptualizing this manuscript.

References

- Ali SS, Manongi RR. Caretakers acceptability in the provision of information on sexuality to adolescents using Information Motivation Behavioral skills (IMB) model in urban district Zanzibar. *East African Journal of Public Health*. 2010; 7:250–257. [PubMed: 21516964]
- Amico KR, Barta W, Konkle-Parker DJ, Fisher JD, Cornman DH, Shuper PA, et al. The information-motivation-behavioral skills model of ART adherence in a Deep South HIV+ clinic sample. *AIDS and Behavior*. 2009; 13:66–75. [PubMed: 17876697]
- Backer, TE. Finding the balance - program fidelity and adaptation in substance abuse prevention: A state-of-the art review. Rockville, MD: Center for Substance Abuse Prevention; 2001.
- Benotsch EG, Pinkerton SD, Dyatlov RV, DiFranceisco W, Smirnova TS, Dudko VY, et al. HIV risk behavior in male and female Russian sexually transmitted disease clinic patients. *International Journal of Behavioral Medicine*. 2006; 13:26–33. [PubMed: 16503838]
- Brown, LK.; Lourie, KJ. Motivational interviewing and the prevention of HIV among adolescents. 1. New York: Guilford Press; 2002.
- Castro FG, Barrera M Jr, Martinez CR Jr. The cultural adaptation of prevention interventions: Resolving tensions between fidelity and fit. *Prevention Science*. 2004; 5:41–45. [PubMed: 15058911]
- Center for Disease Control and Prevention. Compendium of HIV prevention interventions with evidence of effectiveness. 2001. Retrieved December 1, 2011, 2011, from http://www.cdc.gov/hiv/resources/reports/hiv_compendium/
- Chambers CD, Kavteladze L, Joutchenko L, Bakhireva LN, Jones KL. Alcohol consumption patterns among pregnant women in the Moscow region of the Russian Federation. *Alcohol*. 2006; 38:133–137. [PubMed: 16905438]

- Cohen J. Late for the epidemic: HIV/AIDS in Eastern Europe. *Science*. 2010; 329:160–164. [PubMed: 20616262]
- Elovich R, Drucker E. On drug treatment and social control: Russian narcology's great leap backwards. *Harm Reduction Journal*. 2008; 5:23. [PubMed: 18577225]
- Ferrer RA, Morrow KM, Fisher WA, Fisher JD. Toward an information-motivation-behavioral skills model of microbicide adherence in clinical trials. *AIDS Care*. 2010; 22:997–1005. [PubMed: 20552466]
- Fisher JD, Fisher WA. Changing AIDS-risk behavior. *Psychological Bulletin*. 1992; 111:455–474. [PubMed: 1594721]
- Fisher, JD.; Fisher, WA. Theoretical approaches to individual-level change. In: Peterson, J.; DiClemente, R., editors. *HIV prevention handbook*. New York: Kluwer Academic/Plenum Press; 2000. p. 3-55.
- Glaser, B.; Strauss, A. *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine De Gruyter; 1967.
- Goliusov, AT.; Dementyeva, LA.; Ladnaya, NN.; Briko, NI.; Tumanova, MS.; Korzhayeva, NA., et al. Country progress report of the Russian Federation on the implementation of the declaration of commitment on HIV/AIDS. Moscow, federal service for surveillance of consumer rights protection and human well-being of the Russian Federation. 2008. Retrieved May 21, 2009, from http://data.unaids.org/pub/Report/2008/russia_2008_country_progress_report_en.pdf
- Green L, Glasgow R. Evaluating the relevance, generalization, and applicability of research: Issues in external validation and translation methodology. *Evaluation & the Health Professions*. 2006; 29:126–153. [PubMed: 16510882]
- Griner D, Smith TB. Culturally adapted mental health interventions: A meta-analytic review. *Psychotherapy: Theory, Research, Practice, Training*. 2006; 43:531–548.
- Grogan L. Alcoholism, tobacco, and drug use in the countries of Central and Eastern Europe and the former Soviet Union. *Substance Use and Misuse*. 2006; 41:567–571. [PubMed: 16522564]
- Gruenewald PJ, Treno A. Comments on Rossow & Romelsjo (2006). Dispelling illusions about the prevention paradox. *Addiction*. 2006; 101:294–295. [PubMed: 16445561]
- Kalichman SC, Cherry C, White D, Pope H, Cain D, Kalichman M. Altering key characteristics of a disseminated effective behavioral intervention for HIV positive adults: The “Healthy Relationships” experience. *Journal of Primary Prevention*. 2007; 28:145–153. [PubMed: 17333382]
- Kalichman SC, Simbayi LC, Vermaak R, Cain D, Smith G, Mthebu J, et al. Randomized trial of a community-based alcohol-related HIV risk-reduction intervention for men and women in Cape Town South Africa. *Annals of Behavioral Medicine*. 2008; 36:270–279. [PubMed: 18836789]
- Kumpfer KL, Alvarado R, Smith P, Bellamy N. Cultural sensitivity and adaptation in family-based prevention interventions. *Prevention Science*. 2002; 3:241–246. [PubMed: 12387558]
- Lowndes CM, Alary M, Platt L. Injection drug use, commercial sex work, and the HIV/STI epidemic in the Russian Federation. *Sexually Transmitted Diseases*. 2003; 30:46–48. [PubMed: 12514442]
- Lyles CM, Kay LS, Crepaz N, Herbst JH, Passin WF, Kim AS, et al. Best-evidence interventions: Findings from a systematic review of HIV behavioral interventions in US populations at high risk, 2000 – 2004. *American Journal of Public Health*. 2007; 97:133–143. [PubMed: 17138920]
- Malow RM, Stein JA, McMahon RC, Devieux JG, Rosenberg R, Jean-Gilles M. Effects of a culturally adapted HIV prevention intervention in Haitian youth. *Journal of the Association of Nurses in AIDS Care*. 2009; 20:110–121. [PubMed: 19286123]
- Mathiti V, Simbayi LC, Jooste S, Kekana Q, Nibe XP, Shasha L, et al. Development of an HIV risk reduction counseling intervention for use in South African sexually transmitted infection clinics. *Journal of Social Aspects of HIV/AIDS*. 2005; 2:267–276. [PubMed: 17601009]
- Merson MH, Dayton JM, O'Reilly K. Effectiveness of HIV prevention interventions in developing countries. *AIDS*. 2000; 14:S68–S84. [PubMed: 11061644]
- Miller, WR.; Rollnick, S. *Motivational interviewing: Preparing people for change*. 2. New York: Guilford Press; 2002.

- Miller, WR.; Rollnick, S. What makes it motivational interviewing?. International Conference on Motivational Interviewing (ICMI); Stockholm. 2010. Retrieved February 12, 2012, from <http://www.fhi.se/Documents/ICMI/Dokumentation/June-7/Plenary/Miller-june7-plenary.pdf>
- Motivational Interviewing Network of Trainers (MINT). Motivational interviewing [resources for clinicians, researchers, and trainers]. 2009. Retrieved November 15, 2011, from <http://www.motivationalinterview.org/>
- Mullen PD, Ramirez G, Strouse D, Hedges LV, Sogolow E. Meta-analysis of the effects of behavioral HIV prevention interventions on the sexual risk behavior of sexually experienced adolescents in controlled studies in the United States. *Journal of Acquired Immune Deficiency Syndromes*. 2002; 30:S94–S105. [PubMed: 12107363]
- Niccolai LM, Shcherbakova IS, Toussova OV, Kozlov AP, Heimer R. The potential for bridging of HIV transmission in the Russian Federation: Sex risk behaviors and HIV prevalence among drug users (DUs) and their non-DU sex partners. *Journal of Urban Health*. 2009; 86(Suppl 1):131–143. [PubMed: 19507037]
- Nostlinger C, Niderost S, Platteau T, Muller MC, Stanekova D, Gredig D, et al. Sexual protection behavior in HIV-positive gay men: Testing a modified Information-Motivation-Behavioral skills model. *Archive of Sexual Behavior*. 2011; 40:817–827.
- Osborn CY, Amico KR, Cruz N, O'Connell AA, Perez-Escamilla R, Kalichman SC, et al. A brief culturally tailored intervention for Puerto Ricans with type 2 diabetes. *Health Education and Behavior*. 2010c; 37:849–862. [PubMed: 21076128]
- Osborn CY, Egede LE. Validation of an information-motivation-behavioral skills model of microbicide adherence in clinical trials. *Patient Education and Counseling*. 2010a; 79(1):49–54. [PubMed: 19699601]
- Osborn CY, Rivet Amico K, Fisher WA, Egede LE, Fisher JD. An Information-Motivation-Behavioral skills analysis of diet and exercise behavior in Puerto Ricans with diabetes. *Journal of Health Psychology*. 2010b; 15:1201–1213. [PubMed: 20453056]
- Peltzer KK, Naidoo PP, Matseke GG, Zuma KK. Screening and brief interventions for hazardous and harmful alcohol use among patients with active tuberculosis attending primary care clinics in South Africa: A cluster randomized controlled trial protocol. *BMC Public Health*. 2011; 11:394. [PubMed: 21615934]
- Pridemore WA, Chamlin MB. A time-series analysis of the impact of heavy drinking on homicide and suicide mortality in Russia, 1956–2002. *Addiction*. 2006; 101:1719–1729. [PubMed: 17156171]
- Resnicow K, Soler R, Braithwaite RL, Ahluwalia JS, Butler J. Cultural sensitivity in substance use prevention. *Journal of Community Psychology*. 2000; 28:271–290.
- Shattuck D, Kerner B, Gilles K, Hartmann M, Ng'ombe T, Guest G. Encouraging contraceptive uptake by motivating men to communicate about family planning: The Malawi motivator project. *American Journal of Public Health*. 2011; 101:1089–1095. [PubMed: 21493931]
- Stauder A, Thege BK, Kovacs ME, Balog P, Williams VP, Redford BW. Worldwide stress: Different problems, similar solutions? Cultural adaptation and evaluation of a standardized stress management program in Hungary. *International Journal of Behavioral Medicine*. 2010; 17:25–32. [PubMed: 19597996]
- Strauss, A.; Corbin, J. Techniques and procedures for developing grounded theory. 2. Thousand Oaks CA: Sage Publications; 1998.
- Takacs J, Amirkhanian YA, Kelly JA, Kirsanova AV, Khoursine RA, Mocsonaki L. A qualitative analysis of AIDS-related beliefs and attitudes of young heterosexual adults in Budapest, Hungary, and St. Petersburg, Russia. *Central European Journal of Public Health*. 2006; 14:59–66. [PubMed: 16830606]
- Tipwareerom W, Powwattana A, Lapvongwatana P, Crosby RA. Effectiveness of a model of risky sexual behavior prevention among adolescent boys in Thailand. *Southeast Asian Journal of Tropical Medicine & Public Health*. 2011; 42:726–736. [PubMed: 21706953]
- Tomkins S, Saburova L, Kiryanov N, Andreev E, McKee M, Shkolnikov V, et al. Prevalence and socio-economic distribution of hazardous patterns of alcohol drinking: Study of alcohol consumption in men aged 25–54 years in Izhevsk, Russia. *Addiction*. 2007; 102:544–553. [PubMed: 17362291]

- UNAIDS. 2006 report of the global AIDS epidemic. 2006. Retrieved November 15, 2007, from www.unaids.org/en/HIV_data/2006GlobalReport/default.asp
- UNAIDS. AIDS epidemic regional update, Eastern Europe and Central Asia, 2007. 2008. Retrieved May 21, 2009, from http://data.unaids.org/pub/Report/2008/jc1529_epibriefs_eeurope_casia_en.pdf
- Zhang H, Liao M, Nie X, Pan R, Wang C, Ruan S, et al. Predictors of consistent condom use based on the Information-Motivation-Behavioral skills (IMB) model among female sex workers in Jinan, China. BMC Public Health. 2011; 11:113. [PubMed: 21329512]

Figure 1.
Conceptual Model of the Cultural Adaptation Process

Table 1
Comparison of Intervention Characteristics Between the Original and Phaphama Interventions

Original Intervention	Phaphama Intervention
Group session	Individual session
Five-session intervention	Single session intervention
Target audience: People living with HIV	Target audience: STI clinic patients
Multiple facilitators, including at least one mental health professional and one peer counselor	Single facilitator
Collaborative and egalitarian relationships between facilitators and participants	Collaborative and egalitarian relationships between facilitators and participants
Information <ul style="list-style-type: none"> Define stressors related to disclosure and engaging in safer relationships 	Information <ul style="list-style-type: none"> Describe local HIV prevalence and modes of transmission Correct HIV myths and misinformation
Motivation <ul style="list-style-type: none"> Teach decision-making skills around the issue of disclosure Model, role-play, and provide feedback to teach and practice coping skills Set personal goals for disclosure and risk reduction Provide Personal Feedback Report to motivate change in risky behaviors and continuation of HIV prevention behaviors 	Motivation <ul style="list-style-type: none"> Describe continuum of risk; decisional balance exercise Feedback on personal risk behaviors AIDS destigmatization Set personal goals for risk reduction Provide Personal Plan to motivate change in risk behaviors and continuation of HIV prevention behaviors
Behavior <ul style="list-style-type: none"> Examine disclosure and personal risk situations Use movie clips for discussing and role-playing of disclosure & risk-reduction behaviors Condom skills building exercise 	Behavior <ul style="list-style-type: none"> Examine personal risk situations Identify antecedents to risk situations Sexual communication skills exercise Condom skills building exercise

Table 2

Description of the Cultural Adaptation Activities

Task	Date	Subject Type	N	Males (%)	Age (years) ^I	Advanced Education (%)	Data Collected
Brief Elicitation Interview	Nov 2007 – Mar 2008	STI Clinic Patients	30	50.0	27.1 (6.6); 19–41	*	Risk Behaviors & Logistics
Community Advisory Panel	Oct 2008	Experts	7	42.9	34.7 (7.9); 25–50	42.9	Feedback on Intervention
Focus Group	Oct – Nov 2008	STI Clinic Patients	16	50.0	30.3 (9.9); 18–50	*	Feedback on Intervention
Pilot Test	Jan – Feb 2009	STI Clinic Patients	15	46.7	26.1 (6.4); 21–41	*	Feedback on Intervention

^I Mean (SD); range

* Data not collected