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Adapting a sexual violence primary prevention program to Ghana utilizing the ADAPT-ITT framework

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Abstract

Prevention of sexual violence among young people has become a priority area in Ghana, although few initiatives have focused on this topic. The ADAPT-ITT (**A**ssessment, **D**ecisions, **A**dministration, **P**roduction, **T**opical experts, **I**ntegration, **T**raining staff, and **T**esting) framework was used to systematically adapt an evidence-based sexual violence prevention program developed in the United States to a university in Ghana. Results from cognitive interviews, focus groups, beta testing, and topical experts indicate the adapted primary prevention program is promising for use in Ghanaian universities. To our knowledge, this is the first study that has used the ADAPT-ITT framework for a sexual violence program.

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Keywords

sexual violence; primary prevention; Ghana; ADAPT-ITT

Sexual violence is a global public health crisis, occurring across geographic and cultural contexts. It is part of a broader societal problem in which gender inequality and social mores normalize gender-based violence (GBV) and prime adolescents for later relationship violence. Sexual and physical violence affects more than one in three women each year globally (World Health Organization [WHO], 2013), with notably high rates of sexual violence documented among university students (Fedina, Holmes, & Backes, 2018; Hines, 2007; McMahon, Wood, Cusano, & Macri, 2018; Strauss, 2004). Despite increasing recognition that GBV is a pervasive human rights violation occurring around the world, much of the current research has focused on interventions and programs in high-income countries (Garcia-Moreno & Watts, 2011).

Gender-based violence cannot be understood in isolation from the ecological factors (i.e., gender norms, cultural beliefs, and social structures) that influence women's vulnerability to it (Heise, Ellsberg, & Gottemoeller, 2002; Moylan & Javorka, 2018). For instance, social norms that promote gender inequities such as male dominance have consistently been associated with male perpetration of violence against women (Heise et al., 2002; Moylan & Javorka, 2018). Therefore, contexts where such inequities exist, such as in sub-Saharan Africa, are likely to have high levels of violence against women. The prevention of sexual violence among young people, including university students, has become a priority area in some universities in Ghana, although existing initiatives remain less structured.

Sexual Violence on University Campuses

Sexual violence on university campuses is reported to be prevalent on a worldwide scale, while sexual assault is one of the most underreported crimes both on and off campus (Fisher, Daigle, & Cullen, 2010; James & Lee, 2015; Rominski, Moyer, Darteh, & Munro-Kramer, 2017). A multinational study of university students, with data from 30 sites around the world, showed a generally high prevalence of both dating and sexual violence in this population (Hines, 2007; Straus, 2004). These results are consistent with findings from studies conducted in individual low- and middle-income countries (Bennet, 2005; Contreras, Bott, Guedes, & Dartnall, 2010; Jejeebhoy, Shah, & Thapa, 2005; Jewkes & Abrahams, 2002; Philpart, Goshu, Gelaye, Williams, & Berhane, 2009).

The most common form of sexual violence is abuse of women by intimate male partners (Heise et al., 2002), and many reports cite the principal reason for the underreporting on university campuses is that the perpetrator is known to the victim (Fisher et al., 2010). Furthermore, many university students do not perceive or acknowledge their experiences as a rape, often because of lack of evidence, the absence of a weapon, or because alcohol and/or drugs were involved (Fisher, Cullen, & Turner, 2003; Fisher et al., 2010; Karjane, Fisher, & Cullen, 2005). These characteristics of sexual violence within the university setting contribute to the underestimation, under reporting, under prosecution, and low rates

of seeking post-assault services among survivors (Bennett, 2005; Bondurant, 2001; Britwum & Anokye, 2006; James & Lee, 2015; Karjane et al., 2005).

Prevention of Sexual Violence

Prevention of sexual violence occurs at three levels: (1) primary prevention aims to prevent the occurrence, (2) secondary prevention aims to respond immediately after sexual violence has happened, and (3) tertiary prevention is focused on rehabilitation and long-term responses (Centers for Disease Control and Prevention [CDC], 2004). Past research has investigated a number of different approaches to the primary prevention of sexual violence (DeGue et al., 2014; Rothman & Silverman, 2007; Valdutiu, Martin, & Macy, 2011).

Reviews suggest that the primary prevention programs designed to address GBV, including sexual violence, amongst adolescents in the United States (e.g., *Safe Dates* and *Shifting Boundaries*) have the best available evidence for preventing sexual violence including changing behaviors such as perpetration (DeGue et al., 2014; DeGue, 2014; Foshee et al., 1996; Foshee et al., 1998; Taylor & Woods, 2011; Taylor, Stein, Mumford, & Woods, 2013). However, these programs have not yet been shown effective in university settings. Promising programs within the university settings include *Bringing in the Bystander* (Banyard, Moynihan, & Plante, 2007) and *Green Dot* (Coker et al., 2015; Coker et al., 2017; McMahon et al., 2018), which use bystander engagement to prevent and disrupt sexual violence.

While these evidence-based primary prevention programs all demonstrate value for youth, campuses in the United States are also developing their own programs from scratch with minimal evaluation of outcomes. One of these programs, *Relationship Remix,* is an interactive in-person manualized program (1.5 hours long) delivered to first year students by peers with a focus on healthy relationships and consent, using a values-based framework (Bonar, Rider-Milkovich, & Cunningham, 2017). The *Relationship Remix* program uses interactive activities, demonstration, and role-play to illustrate the concepts within eight building blocks related to values, healthy relationships, sexual health, consent, and sexual violence. Student facilitators receive training and with the aid of a Facilitator's Manual administer the program in pairs to their peers. Over the last 5 years, more than 18,000 students have received the *Relationship Remix* program at the University of Michigan. A recent analysis of 2,305 students trained in 2015 noted that immediately after receiving *Relationship Remix*, student participants had significant changes in attitudes and knowledge as targeted by the program (e.g., values-based decision making, knowing how to ask for consent, relationship communication skills), supporting the initial efficacy of this program (Christensen, 2016). *Relationship Remix* has therefore demonstrated positive changes in knowledge and attitudes, although long-term behavior change has yet to be assessed. However, the development of prevention and response programs has received little priority in African countries thus far. While evidence-based programs are available that target culturally appropriate mechanisms (i.e., challenging male dominance and discrediting rape myths) in high resource settings, they require adaptation before they can be used in other cultural settings like Africa (Tavrow et al., 2012).

ADAPT-ITT Framework

The ADAPT-ITT framework provides a sequential eight step process to adapt interventions and programs to new populations and locations (Wingwood & DiClemente, 2008). It was developed, and has previously been used, to adapt evidence-based interventions for HIV to different locations (Sullivan et al., 2014), using a teen advisory board to adapt to a different population (Latham et al., 2010; Latham et al., 2012), and using community-based methods for adaptation to a new context (Wingood et al., 2011). The ADAPT-ITT framework involves eight steps: (1) **A**ssessment of the priorities of the new population, (2) **D**ecisions on whether or not to adapt the intervention and what content to adapt, (3) **A**dministration of the intervention, (4) **P**roduction of an adapted version of the intervention, (5) **T**opical experts assist in the adaptation process, (6) **I**ntegration of feedback from the topical experts into the adapted intervention, (7) **T**raining staff to implement the adapted intervention, and (8) **T**esting the adapted intervention.

This paper describes the use of the ADAPT-ITT framework to modify the primary prevention program, *Relationship Remix*, for use with university students in Ghana. We focus on the first seven stages of the ADAPT-ITT process that resulted in a manualized program for the primary prevention of sexual violence on university campuses in Ghana.

ADAPT-ITT Phases, Methods, & Results

We utilized a mixed methods approach for the adaptation of the existing program, *Relationship Remix,* using the following methods: (1) focus group discussions (FGDs); (2) cognitive interviews to validate quantitative surveys; (3) quantitative surveys; and (4) expert reviewers. Throughout this process, we received funding from internal sources to complete the adaptation process. Before data collection, Institutional Review Board approval was obtained from the University of Michigan and the participating Ghanaian university. Table 1 outlines the adaptation process. The inclusion criteria for both rounds of Phases I and IV included being: (1) a residential student at the University of Cape Coast (2) able to speak and read English, and (3) ≥ 18 years old. All quantitative analyses were completed in Stata (v.13); p-values were set at .05.

Phase I: Assessment

The assessment phase generally includes collecting data using community-based principles to understand the priorities and needs that have been identified by the target population.

Methods—The first step in the ADAPT-ITT process for this study involved conducting FGDs with students from the participating university in Ghana in order to gain a better understanding of the cultural and contextual factors surrounding sexual relationships, violence, and participants' desires for sexual violence prevention programs. We recruited students via posters, announcements, and snowball sampling to gather information in the content domains of (1) healthy relationships, (2) GBV in their lives, (3) sexual coercion, and (4) gender equality. The semi-structured FGDs were conducted in a private room at the university in late February and early March 2016 by United States researchers and Ghanaian research assistants; the researcher from the Ghanaian university did not participate as the

team determined that his role as hall director might stifle conversation because some of the participants were residents of his hall. All participants were reminded to keep the material discussed in the FGDs private. The first two authors utilized the constant comparative method of analysis (Glaser, 1965; Glaser, 1992) to analyze the FGDs for themes related to the four content domains. After a first round of coding, the first two authors came together to reach consensus on the themes and then returned to the transcripts to find illustrative examples and quotes for each theme. All themes were verified by all authors using discussion until consensus was achieved. Validation with colleagues, memos, and an audit trail contributed to validity (Sandelowski & Barroso, 2003).

Additionally, cognitive interviews were conducted to evaluate pre-existing surveys about sexual violence including the Modified Illinois Rape Myth Acceptance Scale (Modified IRMA; McMahon & Farmer, 2011; Payne et al., 1999), Gender Equitable Men Scale (GEM; Pulerwitz & Barker, 2008), and the Sexual Relationship Power Scale (SRPS; Pulerwitz et al., 2000). Participants were asked to complete the surveys while thinking aloud and asking questions about the survey items. The cognitive interviews were conducted in private settings at the university in late February and early March 2016 by United States researchers and Ghanaian research assistants. The comments and questions elicited during the cognitive interviews were tallied, and the first four study authors made changes based on: (1) wording that was not culturally appropriate and (2) questions that were difficult to understand were removed.

Results—Four gender-separated FGDs (2 with females and 2 with males) were conducted with a total of 26 participants that lasted between 56 and 106 minutes. Themes that emerged included: (1) communication using body language and actions, (2) expectation of abstinence before marriage, (3) gendered power differentials in relationships, (4) no means yes, (5) some degree of violence and control is accepted in marriages, and (6) alcohol is not a precipitating factor in sexual violence. We also learned that sexual harassment was the umbrella term used to encompass all forms of sexual violence.

A total of 20 participants completed cognitive interviews which revealed most of the questions were appropriate and well understood.

Modifications—We used this information from the FGDs to begin to culturally adapt *Relationship Remix* to the Ghanaian context by shifting the focus from alcohol-facilitated sexual assault to recognizing and eventually reducing gender inequality. Based on the cognitive interviews, two questions were removed from the GEM, one item was removed from the Modified IRMA, and terminology was changed in the Modified IRMA to make some of the questions more culturally appropriate (i.e. ‘slut’ changed to ‘flirt’).

Phase II: Decisions

The second phase of the ADAPT-ITT process involved identifying evidence-based programs that may be suitable for adoption or adaptation to the new cultural context. Based on a review of the assessment data, a program is chosen for either adoption or adaptation.

Methods—Based on information gathered from the initial FGD's the decision was made to adapt the pre-existing program, *Relationship Remix.* A series of changes were made to the original *Relationship Remix* program in order to make it more culturally and contextually appropriate.

Results & Modifications—Changes to the original *Relationship Remix* program included renaming it *Relationship Tidbits* based on feedback from student participants in the FGDs. Additionally, the following changes were made to the content: (1) addition of victim blaming scenarios, (2) addition of a short video on consent, (3) and the addition of a building block focused on gender equality.

Phase III: Administration

The third phase involved administering, or pre-testing, the program with the target audience in order to ascertain feedback on the format, content, and attitudes about the program. This is often done with the original program, but has also been completed with some modifications made (Sullivan et al., 2014). We chose to complete this phase with some minor adaptations based on the themes present during our initial FGDs.

Methods—After the initial round of changes was made, student participants were recruited for beta testing using announcements and snowball sampling. Ghanaian research assistants delivered the adapted *Relationship Tidbits* program in group settings with observation by the Ghanaian and United States researchers. The first round of beta testing took place in April 2016 and focused on how students would interact with the new content in terms of understanding, participation, and asking questions. The length of time it would take to administer the revised program was also evaluated. Extensive field notes and digital audio recordings were used to document this process. All digital audio recordings were transcribed verbatim by the Ghanaian research assistants. Participants also completed pre- and post-test measures using the revised data collection instruments including the basic demographic information, Modified IRMA, GEM, and SRPS.

Since this was an initial beta test and the researchers were interested in the flow of the program, participants did not use study-specific ID numbers; thus, pre- and post-test scores could not be linked. Therefore, the April 2016 data are presented as aggregate group changes. Quantitative data were analyzed both descriptively and using paired sample t-tests to measure changes pre- and post-intervention. Each scale, and all sub-scales, were tested for change. Changes in quantitative variables were tested for the whole sample as well as independently for male versus female participants.

Results—The first administration of the beta test lasted between 111 and 178 minutes. Participants had difficulty completing some of the activities included in the program, and the facilitators felt it was too lengthy. During the administration of *Relationship Tidbits*, the pre- and post-surveys were completed by 71 of the 76 participants, although not all questions were completed by all participants, leaving 70 responses for the Modified IRMA and GEM scales, and 69 for the SPRS.

Most participants, both the males and females, have had a boy/girlfriend and have had sex. Fewer currently had a boy/girlfriend. Experiences of violence within a relationship were not uncommon for these students; 10 males (27.8%) and 13 females (37.1%) have been insulted by a partner(s), and 9 of the males (25.0%) and 10 of the females (28.6%) have been physically forced to have sex when they did not want to. Demographic characteristics of participants are included in Table 2.

The pre-post Modified IRMA, GEM, and SRPS scores are presented below in Table 3. Male participants had significantly improved scores (a higher score is associated with less rape myth acceptance) in the Modified IRMA (Pre =60.1 [SD=13.1] vs. Post =73.4 [SD=18.3], p<.001). Each sub-scale of the Modified IRMA ('she asked for it', 'he didn't mean to', 'it wasn't really rape', 'she lied') also showed significant improvement among the male participants. Both male and female participants showed significant improvement in endorsement of gender equality as measured by the GEM between the pre- and post-intervention (Pre =57.6 [SD=6.8] vs. Post =59.0 [SD= 6.8]), although not all sub-scales changed. The SRPS did not show any change [Pre= 61.4 [SD= 9.8] vs. Post =60.1 [SD=8.8]).

Modifications—No modifications were made after the administration phase. However, extensive field notes were taken, and all beta testing sessions were audio recorded. This information was then taken to the topical experts in Phase V.

Phase IV: Production

The production phase involves creating the materials needed for the program. In this particular study, materials included a Facilitator's Manual to maintain fidelity. These materials were developed based on the original content from *Relationship Remix* as well as from results of the first three phases of the ADAPT-ITT framework.

Methods—Based on the decisions made after the assessment, the study team undertook the production of a Facilitator's Manual for the *Relationship Tidbits* program.

Results & Modification—The *Relationship Tidbits'* Facilitator's Manual included a script for the student facilitators, a description of any interactive activities, a link to the consent video, and the role-play scenarios.

Phase V: Topical Experts

Working with topical experts comprises the fifth phase. Topical experts are identified based on the type of program, who developed the program, and the context to which the program is being adapting. These individuals should be able to give feedback on the format, content, and types of materials developed during the ADAPT-ITT framework.

Methods—The *Relationship Tidbits'* Facilitator's Manual produced in Phase IV was reviewed by the following topical experts: (1) the sexual assault and wellness centers at the University of Michigan which originally developed the program for consistency of main messages (i.e., values, healthy relationships); and (2) the sexual assault center at the

participating university in Ghana for cultural and contextual applicability. In June 2016, each group had an opportunity to review the *Relationship Tidbits'* Facilitator's Manual and ask the research investigators questions and offer suggestions.

Results & Modifications—The *Relationship Tidbits'* Facilitator's Manual was reviewed with topical experts while providing them with feedback garnered from the first round of beta testing that included: (1) the program was too lengthy, (2) participants did not understand the communication activity, and (3) victim blaming was not being sufficiently addressed by the included scenarios. The topical experts provided feedback on content that should not be cut, such as the sexual health content, and potential new activities to include (e.g., telephone game to illustrate the concept of open communication).

Second Round of Phases II-V (Decisions, Administration, Production, and Review with Topical Experts)

After completing Phases I-V, further changes were needed through a second round of decisions, administration, production, and review with topical experts. Although repeating Phases II-V is not a standard part of the ADAPT-ITT framework, we found it necessary since we were adapting a program to a new location, population, and a significantly different cultural context.

Methods—The second round of decisions was conducted after receiving feedback from the topical experts in July – August 2016. Minor changes were incorporated into the *Relationship Tidbits'* Facilitator's Manual in order to address activities that were not culturally appropriate and content that needed additional emphasis.

A second round of beta testing was then conducted in September 2016. New student participants were recruited for the second round of beta testing using announcements and snowball sampling and the same inclusion criteria outlined above. The Ghanaian research assistants delivered *Relationship Tidbits* using the Facilitator's Manual in group settings with observation by the Ghanaian and United States researchers. Extensive field notes and digital audio recordings of the group interactions were used to document this process; digital audio recordings were transcribed verbatim. Participants also completed pre- and post-test measures using the revised data collection instruments, including the basic demographic information, Modified IRMA, GEM, SRPS, and the Sexual Experiences Survey – Short Form for Victimization and Perpetration (SES-SFV, SES-SFP, Koss et al., 2007).

Study-specific ID numbers were utilized in order to evaluate individual and aggregate changes. Quantitative data were analyzed both descriptively and using paired sample t-tests to measure changes pre- and post-intervention. Each scale was tested for change, as well as each sub-scale within the scales. Changes in quantitative variables were tested for the whole sample as well as independently for male versus female participants.

Based on the second round of beta testing, a second version of the *Relationship Tidbits'* Facilitator's Manual was produced in October 2016. This second version was then circulated to the topical experts for additional questions, feedback, and comments.

Results—Based on results from repeating Phases II-IV, additional revisions were incorporated into the *Relationship Tidbits'* Facilitator's Manual. These included: (1) replacing two activities that did not work in the Ghanaian cultural context (e.g., the game "telephone" replaced a "20 question activity" designed to illustrate open communication) and (2) adding additional content on victim blaming.

The second round of beta testing took between 127 and 135 minutes. Participants reported they enjoyed the new activities. During the second round of beta testing, the pre- and post-test surveys were completed by 57 participants, although not all participants completed all questions, leading to 51 pairs of responses for the Modified IRMA and 53 for the GEM. Only 48 of the participants completed the SRPS; the others did not have a recent sexual relationship from which to base answers. Most participants, both the males and females, have had a boy/girlfriend and have had sex. Fewer currently have a boy/girlfriend. Experience of violence within a relationship is not uncommon for these students; 13 males (40.6%) and 10 females (40.0%) have been insulted by a partners, and 7 of the males (21.9%) and 5 of the females (20.0%) have been physically forced to have sex when they did not want to (Table 2).

Quantitative results from the second round of beta testing demonstrated similar findings to the first round (Tables 4 & 5). The SRPS was only completed in the pre-test (as no changes were documented in the first round, and the pre- and post-surveys were deemed lengthy), and the SES-SFV and SES-SFP were added to the post-test only, as these were not hypothesized to be influenced by the program based on the first round of beta testing. Similar to the first round of beta testing, both the GEM and the Modified IRMA showed significant improvement from pre- to post-test, although when divided by gender, the mean GEM score was only significantly changed in the female participants (Pre=59.9 [SD=5.6] vs. Post=62.0 [SD=5.8], $p< .001$). The Modified IRMA was significantly improved for both female participants (Pre=71.9 [SD=15.7] vs. Post=85.8 [SD=14.9], $p <.001$) and male participants (Pre=66.5 [SD=5.0] vs. Post=76.2 [SD=23.9], $p=.005$), although not all sub-scales demonstrated a significant change between pre- and post-intervention.

Phase VI: Integration

The integration phase involves incorporating changes based on the first five phases that result in an adapted program suitable for pilot testing.

Methods—The integration phase took place in November 2016, in which the results of both iterations of Phases I-V were combined to create the final *Relationship Tidbits'* Facilitator's Manual for the Ghanaian context. At this time, readability testing was performed using the Flesch-Kincaid readability test (Flesch, 1948; Kincaid et al., 1975).

Results & Modifications—Integration resulted in a fully manualized version of *Relationship Tidbits* that included 10 building blocks, or content areas (see Table 6). Since *Relationships Tidbits* is an interactive, peer-delivered program, our team believes there may be future changes to the Facilitator's Manual. However, the current program has undergone a rigorous adaptation process and current readability test results indicate a Flesch-Kincaid

Grade Level of 8.4, which would be appropriate for an incoming group of university students.

Phase VII: Training

The training phase involves training the individuals who will administer the program.

Methods—In our study, the training phase involved training students to deliver *Relationship Tidbits* using the final version of the Facilitator's Manual. A total of 10 students were identified by the gender center and our research collaborator to receive the 3-day training that included training on: sexual violence, sexual health, facilitation skills, identifying bias, and self-care (Authors, under review).

Results—A total of 10 students were trained to administer the *Relationship Tidbits* program to their peers.

Discussion

In this adaptation, a cross-national, multidisciplinary team of researchers from the United States and Ghana collaboratively and systematically modified an existing sexual violence prevention program to a new setting, where the prevention of sexual violence has been determined to be important, but work has not yet begun. The ADAPT-ITT framework provided a systematic model for adaptation to a new context and location. Given the significant differences in contexts, our team found that we needed to complete a second round of Phases II-IV (decisions, administration, production, and review with topical experts), something that has not been done in previous studies using the ADAPT-ITT framework (Latham et al., 2010; Latham et al., 2012; Sullivan et al., 2014; Wingwood et al., 2011).

There is a culture of sexual violence on university campuses across the world, which is undoubtedly linked to the high levels of GBV outside the universities. According to a cross-country measure of discrimination against women in social institutions (formal and informal laws, social norms, and practices), Ghana scores as 'highly discriminatory' (African Development Fund, 2008; Social Institutions and Gender Index, 2015). Discrimination against women is rooted in the country's early history, when the imposition of the colonial systems excluded women from certain roles in society and reinforced women's subordinate position in society.

The post-independence development initiatives continue to draw from and build on existing patriarchal structures in ways that have resulted in the deepening of social and gender divides. Gender-based violence has recently been brought to the spotlight in the country. Statistics indicate that 27% of Ghanaian women have been sexually assaulted in their lifetime, and for two in ten women their first sexual experience is against their will (Cusack & Manuh, 2009)). In 2005, the government established the Domestic Violence Victims Services Unit within the police force. Although the establishment of this unit to address the high prevalence of GBV is encouraging, the unit lacks sufficient resources to effectively

investigate and has little reach onto university campuses, nor has this unit been able to change the social norms that allow GBV to exist (Agbitor, 2012).

It is imperative that primary prevention programs are implemented during a timeframe when youth are first forming relationships and when they are amenable to change. Ideally this would be happening in early adolescence; however, we also recognize that university students represent a fairly captive audience, and a population which experiences high levels of sexual violence (Gonzales et al., 2005). In Ghana, university graduates often serve as leaders within the country. By focusing on developing a primary prevention program within the university context, where there is desire, we hope to change the attitudes, knowledge, and ultimately behaviors of future leaders in the country who will be in a position to advocate for more widespread sexual violence prevention programs. Furthermore, a primary prevention program initiated in a college-age population has the potential to disrupt potentially violent intimate and non-intimate partner relationships that may precipitate chronic physical, mental, and reproductive health consequences and disrupt a survivor's access to a university education.

Our results from the first and second round of beta testing demonstrate some pre- and post-test changes in rape myth acceptance; this was predominantly seen in males in round one of the beta testing. We also saw small but significant changes in views on gender equity; this was predominantly seen in females in the second round of beta testing. Although these are preliminary data, we believe this demonstrates that the adapted program holds great promise in starting to change views around gender equity, victim blaming, and the acceptance of rape myths that perpetuate a rape culture (Rominski, Darteh, & Munro-Kramer, 2017). Past work on bystander intervention (Coker et al., 2011; Foubert et al., 2010; Langhinrichsen-Rohlinget al., 2011) and education of healthcare providers (Milone et al., 2010) have also demonstrated positive reductions in rape myth acceptance; however, these programs did not address views of gender equity. In fact, a recent compilation of literature reviews noted that there are a number of interventions focused on the prevention of college-or university-based sexual assault that have reduced rape myth acceptance, but recommend that future programs consider gender-role socialization (Vladutiu et al., 2011). A systematic review of interventions related to HIV and violence prevention programs found evidence that suggests that gender transformative interventions, or those that reconfigure gender roles, did impact gender roles and masculinity (Dworkin et al., 2013). However, these studies were limited by study design, varying measures of gender roles and masculinity, and incomplete reporting on intervention fidelity (Dworkin et al., 2013). Future work should therefore use rigorous study designs, a program manual to ensure fidelity, and should measure both rape myth acceptance and participant views on gender equity, as our program will.

By adapting a pre-existing evidence-based program focused on values-based decisions and healthy relationships, we were able to engage faculty, staff, and university students in a more rapid adaptation and dissemination of the primary prevention program. Adapting a pre-existing evidence-based program was efficient, ensured accuracy and quality, and allowed us to reuse some of the universal content (i.e., values-based decision making) as it related to the needs identified by Ghanaian university students. The process engaged multiple stakeholders and incorporated numerous interactions with these individuals to ensure that *Relationship*

Tidbits was appropriate and applicable. Using the ADAPT-ITT framework also allowed for a user-centered program and gave ownership to the participants to ensure future sustainability. Next steps will include the **T**esting phase of the framework, which will include a pilot test to ensure feasibility and to continue to look at trends in outcome measures such as rape myth acceptance, gender equality, victimization, and perpetration.

Although this presentation of the ADAPT-ITT framework is limited by its focus on one geographical region and small sample sizes, these are precisely the elements needed to adapt a primary prevention program focused on sexual violence. The ADAPT-ITT framework specifically focuses on new locations, contexts, and/or populations. In this adaptation, we focused on a new location (Ghana) and context.

There are a number of areas for future direction. These include utilizing the ADAPT-ITT framework with nationally recognized interventions such as *Green Dot* or *Bringing in the Bystander*. A systematic adaptation of these programs would be useful for many college institutions, particularly those with limited resources such as community colleges, international universities in low- and middle-income countries, and trade schools. It is also essential to conduct longitudinal evaluations on sexual violence programs and interventions to ensure that they are not only changing knowledge and attitudes but also are changing behaviors that last over time (DeGue et al., 2014). Ideally these evaluations would be implemented during a student's first year on campus so that they can be followed throughout their college career. Finally, evaluation of primary prevention programs should also incorporate randomized controlled trial designs to ascertain the differences between "standard programming", adapted interventions, and adapted interventions with reinforcement. Principles of learning suggest that attitude change and skill change are more effective with reinforcement (Skinner, 1958).

The ADAPT-ITT framework is a promising model to consider adapting pre-existing evidence-based program related to sexual violence. To our knowledge, this is the first study that has used the ADAPT-ITT framework for a sexual violence intervention or program. The ADAPT-ITT model has previously been used in HIV research and has resulted in the successful adaption of many evidence-based interventions regarding HIV (Latham et al., 2010; Latham et al., 2012; Sullivan et al., 2014; Wingwood et al., 2011). Given the growth in sexual violence interventions and the limitations of existing resources, it is important to consider adoption and adaptation of pre-existing interventions with an evidence base as opposed to starting from scratch.

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Table 1.

Applying the ADAPT-ITT Framework to *Relationship Remix* for a Ghanaian Setting

Date	ADAPT-ITT Phase	Goal of the Phase	Methodology	Results
February 2016	**A**ssessment	Understanding the priorities and needs of the community/population	4 FGDs (2 each with women and men) to discuss issues around sexual relationships and sexual violence. Total number of participants: 26 2) 20 cognitive interviews to validate measures	Themes that emerged included: • communication using body language and actions • expectation of abstinence before marriage • gendered power differentials in relationships • no means yes • some degree of violence and control is accepted in marriages • alcohol is not a precipitating factor in sexual violence 2) Validation and minor changes to the: • Modified Illinois Rape Myth Acceptance Scale • Gender Equitable Men's Scale • Sexual Relationship Power Scale
March-April 2016	**D**ecisions	Determining if there is a pre-existing intervention/ program to adapt.	• Decided that the *Relationship Remix* primary prevention program was appropriate to adapt.	Based on information gathered from the FGDs, the first round of revisions to *Relationship Remix* included: • Addition of victim blaming scenarios • Removal of much of the focus on alcohol • Addition of a short video on consent • Addition of a content area focused on gender equality
April 2016	**A**dministration	Administering the program	Beta-testing conducted with 6 groups (2 with men, 2 with women, 2 with combined sexes) to administer the new intervention. Total number of participants = 76	• Male participants had significantly improved scores in rape myth acceptance • Both male and female participants showed significant improvement in endorsement of gender equality.
June 2016	**P**roduction	Producing an adapted version of the program	Production of the *Relationship Tidbits'* Facilitator's Manual	*Relationship Tidbits'* Facilitator's Manual
July 2016	**T**opical Experts	Topical experts assist in the adaptation process	Production draft #1 reviewed with topical experts (Ghanaian and United States sexual assault centers).	Revised case studies suggested by topical experts
July-August 2016	**D**ecisions #2		Based on assessment, administration, and discussion with topical experts, a second round of revisions was undertaken.	Additional decisions led to the following changes: •Replaced two activities •Added additional content on victim blaming
September 2016	**A**dministration #2		Beta-testing repeated with 6 groups (3 with men, 3 with women) to test the additional revisions implemented into the *Relationship Tidbits'* Facilitator's Manual. Total number of participants = 57	• Gender equality was significantly changed in the female participants • Rape myth acceptance was significantly improved for both male and female participants
October 2016	**P**roduction #2		Production of draft #2 of the *Relationship Tidbits'* Facilitator's Manual	Second version of the *Relationship Tidbits'* Facilitator's Manual
October-November 2016	**T**opical Experts #2		Review content with topical experts (Ghanaian and United States sexual assault centers)	No further changes recommended by topical experts during this phase
November 2016	**I**ntegration	Integration of feedback from the topical experts into the adapted program	Results of both beta-testing sessions, two meetings with topical experts, and readability testing integrated to create final version of the *Relationship Tidbits'* Facilitator's Manual	Final version of the *Relationship Tidbits'* Facilitator's Manual

Date	ADAPT-ITT Phase	Goal of the Phase	Methodology	Results
March 2017	**T**raining	Training staff to implement the adapted program	Students trained on the following topics to administer the *Relationship Tidbits* program: sexual violence, sexual health, facilitation skills, identifying bias, & self-care	10 trained student facilitators
	Testing	Testing the adapted program	Forthcoming	

*The shaded sections indicate the steps that were repeated by the study team

Table 2.

Select Descriptive Statistics of April & September 2016 Participants

	April 2016 Beta Testing		September 2016 Beta Testing	
	Male n (%)	**Female n (%)**	**Male n (%)**	**Female n (%)**
Currently have a boy/girlfriend	24 (66.7)	20 (57.1)	18 (56.3)	16 (64.0)
Ever had boy/girlfriend	31 (86.1)	32 (88.9)	28 (87.5)	22 (88.0)
Ever had sexual intercourse	29 (80.1)	27 (77.1)	19 (59.4)	14 (56.0)
Since the age of 15 has anyone, other than your current boyfriend/ girlfriend, ever beaten or physically mistreated you in any way	2 (5.6)	1 (2.8)	3 (9.4)	3 (12.0)
Since the age of 15 has anyone, other than your current boyfriend/ girlfriend, ever forced you to have sex or to perform a sexual act when you did not want to	4 (11.1)	8 (22.9)	3 (9.4)	6 (24.0)
Has your current partner, or any other partner ever…				
Insulted you or made you feel bad about yourself	10 (27.8)	13 (37.1)	13 (40.6)	10 (40.0)
Belittled or humiliated you in front of other people	5 (13.9)	2 (5.7)	5 (15.6)	2 (8.0)
Done things to scare or intimidate you on purpose	5 (13.9)	8 (22.9)	10 (31.3)	4 (16.0)
Threaten to hurt you or someone you care about	4 (11.1)	4 (11.4)	5 (15.6)	2 (8.0)
Slapped you or thrown anything at you that could hurt you	2 (5.6)	2 (5.7)	5 (15.6)	2 (8.0)
Pushed you or shoved you or pulled your hair	1 (2.8)	2 (5.7)	4 (12.5)	4 (16.0)
Hit you with their fists or with something else	1 (2.8)	2 (5.7)	2 (6.3)	2 (8.0)
Kicked you, dragged you, or beat you up	1 (2.8)	0	0	1 (4.0)
Choked or burnt you on purpose	0	0	0	0
Threatened to use or actually used a weapon against you	0	0	0	0
Has your current partner or any other partner ever physically forced you to have sexual intercourse when you did not want to	9 (25.0)	10 (28.6)	7 (21.9)	5 (20.0)
Have you had sexual intercourse when you did not want to because you were afraid of what your partner or any partner might do	7 (19.4)	5 (14.3)	3 (9.4)	4 (16.0)
Has your partner or any other partner ever forced you to do something sexual that you found degrading or humiliating	7 (19.4)	7 (20.0)	1 (3.1)	5 (20.0)

Table 3.

Pre- and Post-Intervention Results for First Round of Beta Testing

Scale	Item	Pre-male	Post-male	Pre-female	Post-female
Modified IRMA (n=70)	Overall Scale	60.1 (13.1)	73.4 (18.3) ***	71.1 (14.4)	66.4 (22.6)
	'She Asked For It' Subscale	15.0 (2.1)	20.5 (6.6) ***	18.4 (6.6)	18.5 (7.8)
	'He Didn't Mean To' Subscale	15.6 (4.9)	19.5 (6.6) ***	18.1 (5.9)	17.2 (7.2)
	'It Wasn't Really Rape' Subscale	18.6 (4.9)	19.5 (4.9)	19.5 (3.6)	17.0 (6.2) *
	'She Lied' Subscale	10.9 (3.7)	13.9 (4.3) ***	15.1 (3.4)	13.7 (5.3)
SPRS (n=69)	Overall Scale	59.0 (9.4)	60.3 (8.6)	63.8 (9.6)	59.5 (8.6)
	'Relationship Control' Subscale	41.3 (7.9)	43.8 (8.0)	47.5 (8.2)	43.3 (8.1) *
	Decision Making Subscale	17.7 (3.4)	16.5 (2.5)	16.4 (3.5)	16.2 (2.2)
GEM (n=70)	Overall Scale	54.5 (7.6)	59.5 (6.3) *	60.8 (4.2)	57.8 (7.3) *
	Violence Domain	15.3 (2.4)	16.9 (1.9) ***	17.5 (.742)	16.7 (2.1)
	Sexual Relationship Domain	17.0 (2.5)	17.9 (2.1)	18.0 (2.1)	17.2 (2.9)
	Reproductive Health and Disease Prevention Domain	12.1 (2.2)	13.4 (1.8) **	13.5 (1.5)	13.1 (2.2)
	Domestic Chores Domain	10.1 (2.6)	11.3 (2.5)		10.9 (2.6)

* $p<.05$

** $p<.05$

*** $p<.001$

Table 4.

Individual Level Pre- and Post-Intervention Results for Second Round of Beta Testing

Scale	Item	Pre-intervention M(SD)	Post-intervention M(SD)	Mean change (*p*)
Modified IRMA (n=51)	Overall Scale	68.8 (16.2)	80.5 (20.5)	−11.0 (<.001)
	'She Asked For It' Subscale	18.3 (5.8)	22.8 (7.1)	−4.3 (<.001)
	'He Didn't Mean To' Subscale	18.0 (5.9)	20.6 (7.1)	−2.6 (.002)
	'It Wasn't Really Rape' Subscale	18.6 (4.7)	21.2 (4.8)	−2.5 (<.001)
	'She Lied' Subscale	14.1 (4.3)	15.9 (4.3)	−1.8 (.006)
	Cronbach's Alpha	.894	.950	
SRPS (n=48) [+]	Overall Scale	61.0 (8.3)	-	-
	'Relationship Control' Subscale	45.3 (7.3)	-	-
	Decision Making Subscale	16.0 (2.4)	-	-
	Cronbach's Alpha	.836	-	-
GEM (n=53)	Overall Scale	57.9 (7.8)	59.6 (8.7)	−1.7 (.003)
	Violence Domain	16.7 (1.8)	16.6 (2.4)	−.02 (.929)
	Sexual Relationship Power Domain	17.0 (2.8)	17.8 (3.1)	−.84 (.007)
	Reproductive Health and Disease Prevention Domain	13.3 (1.8)	13.6 (2.1)	−.22 (.229)
	Domestic Chores and Daily Life Domain	10.9 (2.8)	11.6 (2.9)	−.64 (.022)
	Cronbach's Alpha	.888	.916	

[+] Individuals who had not been involved in a sexual relationship (n=9) answered not applicable to this scale and were not included in the analyses

Table 5.

Pre- and Post-Intervention Results by Gender for Second Round of Beta Testing

Scale	Item	Pre-Female M(SD)	Post-Female M(SD)	Pre-Male M(SD)	Post-Male M(SD)
Modified IRMA (n=51)	Overall Scale	71.9 (15.7)	85.8 (14.9)***	66.5 (5.0)	76.2 (23.9)**
	'She Asked For It' Subscale	19.3 (4.6)	24.7 (5.2)***	17.5 (6.5)	21.3 (8.1)**
	'He Didn't Mean To' Subscale	18.9 (6.3)	21.8 (5.6)*	17.3 (5.5)	19.5 (8.0)*
	'It Wasn't Really Rape' Subscale	18.8 (4.5)	22.0 (3.5)***	18.5 (4.9)	20.5 (5.7)
	'She Lied' Subscale	15.1 (3.7)	17.1 (2.7)**	13.3 (4.5)	14.9 (5.0)
SRPS (n=48)+	Overall Scale	62.3 (8.7)	-	60.0 (8.0)	-
	'Relationship Control' Subscale	47.7 (7.1)	-	43.4 (7.0)	-
	Decision Making Subscale	15.3 (2.3)	-	16.5 (2.5)	-
GEM (n=53)	Overall Scale	59.9 (5.6)	62.0 (5.8)***	56.5 (8.9)	57.6 (10.1)
	Violence Domain	17.4 (1.0)	17.2 (1.9)	16.1 (2.1)	16.1 (2.7)
	Sexual Relationship Power Domain	17.0 (2.7)	18.6 (1.9)***	16.9 (2.9)	17.2 (3.7)
	Reproductive Health and Disease Prevention Domain	13.9 (1.4)	14.1 (1.4)	12.9 (2.0)	13.1 (2.4)
	Domestic Chores and Daily Life Domain	11.3 (2.2)	12.1 (2.4)*	10.6 (3.2)	11.2 (3.2)

* $p < .05$

** $p < .01$

*** $p < .001$

+ Individuals who had not been involved in a sexual relationship (n=9) answered not applicable to this scale and were not included in the analyses

Table 6.

Final Building Blocks of *Relationship Tidbits*

Building Blocks	Title	Main Activities
1	*Create a safe and welcoming space*	Participants identify ideas to create a safe space during the training (i.e., confidentiality, no judgment)
2	*Thinking about our values*	Participants identify values important to them using a worksheet & then discuss why it is important to think about our values
3	*Decision-making from our own value system*	Participants think about their values and how they uphold them or what happens when people do not act in accordance with their values
4	*Developing relationship skills*	Four quadrants exercise – participants use a worksheet to identify Essential, Tolerable, Deal-Breaker, and Bonus characteristics in a relationship
5	*Communication*	Telephone game to illustrate the need for open and honest communication
6	*Gender equality*	Read a handout on gender equality and share a story in groups about how they have personally noticed their gender impact their life
7	*Consent*	Consent as Tea video, case studies where students determine whether or not consent has been garnered, practice giving and receiving consent
8	*Making choices about sex*	Discussion about the health consequences of being in a sexual relationship (i.e., pregnancy, sexually transmitted infections)
9	*Sexual harassment*	Review the definitions of sexual harassment (terminology used at the Ghanaian university) as well as coercion. Students were asked to create a case to discuss where sexual harassment has occurred.
10	*Campus resources*	Discuss resources available on campus