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Selection of Film Clips and Development of a Video for the Investigation of Sexual Decision Making among Men Who Have Sex with Men

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Abstract

Experimental research on sexual decision making is limited, despite the public health importance of such work. We describe formative work conducted in advance of an experimental study designed to evaluate the effects of alcohol intoxication and sexual arousal on risky sexual decision making among men who have sex with men. In Study 1, we describe the procedures for selecting and validating erotic film clips (to be used for the experimental manipulation of arousal). In Study 2, we describe the tailoring of two interactive role-play videos to be used to measure risk perception and communication skills in an analog risky sex situation. Together, these studies illustrate a method for creating experimental stimuli to investigate sexual decision making in a laboratory setting. Research using this approach will support experimental research that affords a stronger basis for drawing causal inferences regarding sexual decision making.

From the outset of the HIV epidemic in the United States, men who have sex with men (MSM) have been disproportionately affected by HIV and AIDS. MSM represent approximately 50% of those living with HIV in the United States and over 70% of HIV+ men (Centers for Disease Control [CDC], 2007; Hall et al., 2008). The MSM community made remarkable strides to reduce rates of risky sexual behavior during the first decade of the HIV and AIDS epidemic (Martin, 1987; Ostrow, 1999). However, recent data reveal an estimated 8.6% annual increase in the number of HIV and AIDS diagnoses among MSM from 2001 to 2006 (CDC, 2008). To stem the tide of new infections among MSM and to reduce transmission of sexually transmitted diseases (STDs) and drug-resistant HIV strains among MSM already living with HIV, research involving MSM remains a critical public health priority.

Despite the considerable advances in the last 10 years in the effectiveness and accessibility of medications in slowing the progression of AIDS, there remains no medical cure for it. Therefore, behavioral interventions aimed at decreasing the incidence of HIV through promotion of safer sexual practices remain the best approach to ameliorating the HIV epidemic (Kalichman & Weinhardt, 2001). Accordingly, there has been a major emphasis among researchers on identifying biological, psychological, and social or situational factors that may be associated with the occurrence of unsafe sex and the mechanisms of their action.

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One factor routinely identified as a risk modifier is alcohol use, especially with respect to how alcohol intoxication may impair sexual decision making.

Alcohol use has been associated with the occurrence of unsafe sexual behavior in multiple populations, including MSM. A recent review of 45 studies that investigated the association of alcohol use and sexual risk behavior among MSM found ample evidence of a relationship between the two variables, but also revealed that the relationship is complex and in need of ongoing attention (Woolf & Maisto, 2008). Specifically, it was concluded that a causal relationship between the two variables cannot be assumed until theory-based experimental research confirms the results from correlational research (Woolf & Maisto, 2008). Other reviews of research on the alcohol–sexual risk relationship with heterosexual populations have made similar observations (e.g., Cook & Clark, 2005; Cooper, 2002; Leigh & Stall, 1993; Weinhardt & Carey, 2000).

To address this gap in the literature, we developed a methodology for use in an experimental study to investigate the effects of alcohol intoxication and sexual arousal on the sexual behavior of MSM. A series of pilot studies was conducted to (a) select and establish face validity for the use of erotic film clips for the experimental manipulation of arousal in an analog risky sex situation and (b) produce and establish face validity for two interactive risk-exposure and role-play videos to be used for measuring risk perception and communication skills in an analog risky sex situation. To provide a context for this pilot research, we first briefly describe the experimental study for which these procedures and materials will be used.

Alcohol Intoxication, Sexual Arousal, and Sexual Decision Making

The pilot studies described here were designed to create materials for use in an experiment that tests the effects of sexual arousal and alcohol intoxication on risk perception, behavioral intentions, risk taking, and behavioral skills in MSM. To test the causal relationships among these variables, we plan a double-blind, randomized-dose alcohol administration study. For this study, single MSM (aged 21–50 years) will consume a beverage (alcohol, placebo control, or water) and then randomly assigned to either an “arousal” or a “neutral” condition. In the arousal condition, men will view film clips depicting sexually explicit material between two men; and in the neutral condition, participants will view a “scenes of nature” film clip. After viewing the film clips, men will then respond to an interactive video-based exercise that gauges self-controlled risk exposure (sexual decision making) and assesses behavioral skills through a role-play scenario. This interactive exercise is designed to measure the four (dependent) variables of interest: (a) risk perception, (b) behavioral intention (to engage in risky sex), (c) risk taking, and (d) behavioral skills. Data collection for the experimental study is expected to be completed in early 2010.

This article has been divided into two sections with the hope that these two sets of procedures and materials could be made available in one place and, thus, be easily accessible to other researchers. Study 1 describes the selection of the erotic film clips, and Study 2 describes the methodology used to create the interactive risk-exposure and role-play video. Prior to study initiation, all procedures were approved by the institutional review board at Syracuse University.

Study 1: Development of Erotic Stimuli to Induce Arousal

In Study 1, we sought to identify and evaluate erotic stimuli for the purpose of inducing a mild to moderate degree of sexual arousal in the planned experimental study. This degree of arousal was chosen because the use of stimuli that induce high levels of arousal may have the potential to undermine the content of the role-play video (described in Study 2), thereby

reducing its impact. Although there is a significant body of research investigating erotica with heterosexual men and women, there has been less published work with MSM; moreover, for all populations, it is uncommon for authors to publish the details of how film clips were selected (Janssen, Carpenter, & Graham, 2003). Further, the increase in the availability, volume, and type of sexually explicit materials on the Internet (Fisher & Barak, 2001) has made the use of erotic stimuli to induce sexual arousal in the laboratory more challenging. The problem is compounded for MSM because few scientific data are available regarding the effective use of erotica in the laboratory, and MSM report higher rates of Internet use relative to other subgroups (Weinrich, 1997). In this regard, the powerful effects of stimulus novelty on sexual arousal in men (e.g., Koukounas & Over, 2000) make it essential that stimuli selected for research use be effective in the context of stimuli that are available to participants in their everyday lives.

In the planned experimental study, audio and visual erotic stimuli are used for the arousal manipulation because use of both sensory modalities optimizes arousal (Laan & Evergerd, 1995). Selection of the erotic stimuli followed the procedures reported by Janssen et al. (2003) in their study of gender differences in response to erotic stimuli.

Method

Prospective participants were screened by telephone by a research associate (RA) to assure that they met the eligibility criteria. They were also asked not to consume any illicit drugs or alcohol for at least 24 hr before their research appointment, which was scheduled in the same phone conversation.

Participants

Thirty-two MSM participated in the erotic stimuli development studies. Participants were (a) not in a sexually committed relationship in the last three months, (b) moderate or heavy drinkers (Cahalan, Cisin, & Crossley, 1969), and (c) interested in sexual contact with men as reflected by a Kinsey Scale score >3 (Kinsey, Pomeroy, & Martin, 1948). To assure that participants were moderate to heavy drinkers, the Quantity–Frequency–Variability (QFV) Questionnaire (Cahalan et al., 1969) was used to measure usual drinking patterns. Participants were asked to respond to the items of this questionnaire based on their drinking in the last three months to determine a QFV classification. Only participants who reported drinking at a level that classified them as “moderate” or “heavy” were recruited. Participants were 50% White ($n=16$) and 28% African American ($n=9$), 9% were of a mixed ethnicity ($n=3$), 6% were Asian ($n=2$), 3% were Native American ($n=1$), and 3% did not report their ethnicity ($n=1$). Age ranged from 21 to 46 years old ($M=29.30$).

Measures

In addition to the QFV and the Kinsey Scale, participants completed a questionnaire that requested information about age, relationship status, length of current relationship, educational attainment, race, employment status, and income.

The primary dependent measures were ratings of the erotic film clips. Each of the film clips were rated using Likert-type scales ranging from zero to six, on the following dimensions: “How attractive did you find the actors?” (attractiveness), and “How arousing did you find the scenario?” (arousal).

Procedures and Results

Four different phases were used to complete the selection of two 6-min erotic film clips, the length of which were determined for the following reasons. During the planned experimental study, all study procedures (including a measure of information processing, the arousal

manipulation, and the risk perception and role-play task) must be completed as blood alcohol content (BAC) is ascending. Under the conditions of this research, the projected peak BACs is expected to be reached within 45 min after participants finish their alcohol consumption (Roine, Gentry, Lim, Baraona, & Lieber, 1991). Based on our experience with some of the measures, and our projections for use of the remaining measures, six-minute film clips fit within this time-frame while still producing sufficient arousal.

Selection of video stimuli—Internet Web sites targeting gay and bisexual men and video catalogues were searched for the selection of films for potential use in the experiment. Candidate films were selected if they advertised mild sexual content, partial nudity, or both; but an effort was made to avoid DVDs advertising scenes depicting explicit anal sexual intercourse. A total of 14 DVDs were selected to create an initial pool of potential erotic film clips (a complete list of the DVDs is available upon request).

Consent—Upon arrival at the laboratory, eligibility was confirmed and then participants were asked to provide informed written consent. Next, participants completed a battery of self-administered questionnaires. Participants were then escorted by an RA to a room with a computer monitor, keyboard, and mouse; and then they received an explanation about the next part of the study.

Phase I—Participants were informed that they would be viewing one or more DVDs containing mildly explicit sexual material. They were instructed to view the DVDs and select portions of the DVDs that they found arousing. Participants viewed erotic film clips on a standard 15-in. flat panel monitor in a private room in a research laboratory. To “select” the clips, participants clicked the mouse at the beginning and at the end of each potential clip; they were told to choose as many clips as they wanted (all chosen clips were stored in a separate data file identifiable by participant identification number). Participants were left to view the DVDs in a private room while the RA presented them from a computer in an adjoining room. After the participant had finished viewing the DVDs, he was debriefed and paid for his time (\$10 per hour plus \$15 for transportation). Five participants viewed the 14 DVDs and selected an initial pool of 84 erotic film clips. These film clips contained sexual material that included kissing, fondling, oral sex, and the clear suggestion of anal intercourse (i.e., only partial nudity).

Phase II—The purpose of Phase II was to reduce the 84 films selected in Phase I to a smaller pool that provided at least moderate ratings of attractiveness and arousal.

Twelve participants viewed and rated the 84 film clips selected in Phase I. Participants were instructed to view and rate each film clip for “arousal” and “attractiveness.” The film clips were presented in a random order. Across the entire set of 84 film clips, mean ratings of arousal ranged from 0.17 to 3.10 ($M=1.16$), and mean ratings of “attractiveness” ranged from 0.50 to 4.00 ($M=2.03$). Based on these ratings, 14 film clips from four different DVDs were chosen. For these 14 clips, mean levels of “arousal” ranged from 1.42 to 3.70, and mean levels of “attractiveness” ranged from 1.80 to 3.10. Table 1 shows the mean ratings and length of each of the 14 chosen film clips.

Phase III—In preparation for Phase III, the 14 film clips from each of the four DVDs were reduced to four clips based on which DVD they belonged to. Specifically, combined Film Clip “A” corresponded to DVD 4, from which two of the 14 film clips were taken; “B” corresponded to DVD 5, from which five of the 14 clips were taken; “C” corresponded to DVD 8, from which five of the 14 film clips were taken; and “D” corresponded to DVD 11, from which two of the 14 clips were taken. This was done to create a coherent montage of

erotic stimuli while maintaining and increasing sexual arousal. To assure that the film clips still induced an acceptable level of arousal after being combined, 10 participants viewed and evaluated Film Clips A, B, C, and D on the previously described dimensions of attractiveness and arousal. Film clip sequence was presented in a balanced design. Mean ratings of arousal and attractiveness (respectively) for the four film clips were as follows: Film Clip A=1.90 and 2.20, Film Clip B=2.30 and 2.70, Film Clip C=2.45 and 1.80, and Film Clip D=2.00 and 2.70.

Phase IV—In preparation for Phase IV, the four film clips were made into pairs (AC, BD, CA, and DB), based on the respective lengths, to create four clips that were approximately six minutes in length. A new group of participants ($n=5$) evaluated these “combined” film clips on the same dimensions of attractiveness and arousal with the intention of selecting the two combined film clips that were rated the highest. As can be seen in Table 2, combined Film Clip 1 (AC) and combined Film Clip 4 (DB) were selected for use in the experimental study. Both of these film clips produced the highest ratings of attractiveness while still producing an adequate level of arousal.

Discussion

Study 1 described the procedures for selecting and validating erotic film clips. The formative research described here provides a framework from which other arousal-based research can standardize the process for selecting erotica for use in a laboratory setting. Prior published articles using erotic film clips seldom “include any variables related to how, or by whom, sexual stimuli [are] selected” (Janssen et al., 2003, p. 244). In fact, most often it is the researchers themselves who have selected the stimuli (Janssen et al., 2003). This underscores the importance of sharing our procedures with other researchers interested in conducting similar research.

To our knowledge, there are no other research studies that have attempted to experimentally manipulate arousal and alcohol intoxication in the laboratory with MSM.

Despite recent recognition of the importance of emotional factors, such as sexual arousal, as determinants of high risk sexual behavior (Crepaz & Marks, 2001; Gold, 1993; Murphy, Monahan, & Miller, 1998), little risk-reduction research has investigated arousal as a risk enabler. Furthermore, major theoretical models guiding HIV sexual risk-reduction efforts (e.g., information–motivation–behavioral skills model; Fisher & Fisher, 2000) have paid little attention to the role of arousal, and few researchers have explored the role that sexual arousal may play in the alcohol–risky sex relationship (for exceptions, see George & Stoner, 2000; Gold, 1993; Murphy et al., 1998). Research is beginning to investigate the role of sexual arousal as a determinant of risky sex among heterosexual populations (e.g., Ariely & Loewenstein, 2006; George et al., 2007) and less frequently with MSM (Gold, 1993), but the literature is still scant.

Although the procedures described in Study 1 are novel, there are limitations to note. First, the film clip selection is largely based on the evaluations of Caucasian MSM, limiting the generalizability of the findings to MSM from other races and ethnicities. Similarly, the actors in the clips were mostly young, Caucasian, middle-class MSM. However, as noted in Study 2, these match the demographics that we expect for our experimental research. Lastly, the potential pool of erotic film clips was limited by the 14 DVDs initially chosen for inclusion in the study. Perhaps a larger pool of DVDs may have resulted in a more diverse selection of film clips. Thus, although the formative work described is innovative, it can be improved in future research. For now, the results from this study begin to address an important gap in the literature, and will facilitate research designed to improve our

understanding of how arousal and alcohol interact to influence sexual decision making among MSM.

Study 2: Development of an Interactive Risk-Exposure and Role-Play Video

The purpose of Study 2 was to develop an interactive risk-exposure and role-play scenario that (a) provides reliable measures of condom use negotiation skills and (b) elicits a moderate degree of sexual arousal in young MSM. Participants were asked to evaluate the scenarios' realism and difficulty, as well as the attractiveness of the actors to accomplish these objectives.

The procedures used in this study were adapted from previous alcohol-administration studies that used interactive risk-exposure and role-play scenarios to (a) measure behavioral skills in sexual scenarios with heterosexual men and women (Maisto, Carey, Carey, & Gordon, 2002; Maisto, Carey, Carey, Gordon, & Schum, 2004; Maisto, Carey, Carey, Gordon, Schum, & Lynch, 2004) and (b) study heterosexual young men's judgments of sexual aggression in sexual scenarios (Noel et al., 2008). Although previous studies reflect advances that have been made in developing role-play procedures that are effective with specific subgroups, behavioral measures of risk-exposure and condom-use negotiation skills have not been standardized (Gordon, Forsyth, Weinhardt, & Carey, 1995), and no measures of sexual decision making and behavioral skills have been developed for use with MSM. Therefore, this study was designed to create an engaging, moderately arousing, interactive risk-exposure and role-play scenario that approximates a realistic sexual encounter involving two men.

Method

Screening procedures for Study 2 were identical to those described in Study 1.

Participants

Thirty-four MSM participated—20 participated in qualitative individual interviews, and 14 participated in the quantitative portion of the study. Participants were not in a sexually committed relationship in the last three months, were moderate or heavy drinkers (Cahalan et al., 1969), and reported having sexual experiences with other men as assessed by a score of >3 on the Kinsey Scale (Kinsey et al., 1948). Of the 88% of participants who reported ethnicity, 38% were White ($n = 13$), 32% were African American ($n = 11$), 9% were of a mixed ethnicity ($n = 3$), 6% were Asian ($n = 2$), and 3% were Hispanic ($n = 1$). Mean age was 25.80 years (range=21–35 years).

Measures

Similar to Study 1, participants completed the QFV, Kinsey Scale, and a demographics questionnaire. The primary measures for this study were participant ratings of the interactive risk-exposure and role-play scenarios and of actors. Participants used seven-point Likert scales ranging from zero to six to rate each of the following dimensions: “How realistic did you think the scenario was?” (realism), “How attractive did you find the actors?” (attractiveness), “How arousing did you find the scenario?” (arousal), and “How difficult was it to complete the task?” (difficulty). It was expected that the scenarios be viewed as moderately realistic, that the actors be seen as moderately attractive, and the task be moderately difficult (to ensure some level of variability). These questions were asked of the entire risk-exposure and role-play tasks for each of two sets of actors, and were the main variables of interest for this pilot study.

Procedures

Each participant completed his session individually. Upon arrival at the laboratory, participants signed an informed consent and completed several screening questionnaires to confirm eligibility. An RA then accompanied the participant to a room with a computer monitor, keyboard, and mouse and explained that instructions for the rest of the session would come directly from the computer. The RA informed the participant that he would be viewing two interactive videos and would be asked to rate *each* of them on several dimensions. Participants viewed the role-play and risk-exposure videos on a standard 15-in. flat panel monitor in a private room in a research laboratory. The RA left the room and initiated the video, allowing the participant to engage in the risk-exposure and role-play task. When the participant had finished evaluating the first randomly selected scenario, the RA informed the participant that he would be engaging in the same process for a second scenario. The participant then viewed and evaluated the second risk-exposure and role-play scenario. Once both scenarios had been viewed and evaluated, the RA asked the participant open-ended questions about how the scenario and procedures might be changed to make them more (a) realistic, (b) more or less challenging to complete, and (c) sexually arousing. The participant was debriefed and paid \$40. The session took about 60 min.

Procedure for Adaptation of an Existing Interactive Video

We began with an existing interactive computer-based sexual risk-reduction intervention targeting MSM aged 18 to 35 years (Read et al., 2006), and adapted this video with the permission of its creators. Our interest was to use the video to measure risk taking and condom use negotiation skills for our planned experimental study. Read et al.'s (2006) video had been pilot tested and proved to be effective for use with young adult MSM. We also created a second interactive video to provide additional stability of measurement, as we have done in our past research (Maisto et al., 2002).

To adapt the interactive component of the Read et al. (2006) prevention intervention, we used the results of individual semi-structured interviews with 20 MSM.

During these interviews, participants were asked what type of variables and situations would contribute to condom or non-condom use. One major theme was the status or length of the relationship. In general, participants reported that being in an established relationship engendered feelings of trust and safety that contributed to having sex without a condom. Based on this feedback, we decided that there would have to be some element of familiarity between the two characters in the interactive video (described later).

Participants were also asked to identify circumstances in which risky sex was likely to occur. The most common theme to emerge was use of alcohol or other drugs.

With this in mind, we thought it important for the scenarios to include drinking to make them realistic. Other than the presence of alcohol, suggestions about what type of context would contribute to risky sexual behavior were variable. Thus, we included a variety of situations in the initial pool of scenarios with the intention that the most relevant scenarios would be selected during the quantitative pilot work. Finally, when asked about the physical appearance and personality that should be reflected in the protagonist in the story, participants indicated that he should be attractive, masculine, outgoing, nice, assertive, and trustworthy. These characteristics were taken into account when casting and writing the scripts for the role of the protagonist, "Jim." Furthermore, we chose to depict Jim as a young, middle-class, Caucasian man because we expected our sample to be mostly characterized by these demographics.

In the adapted video, the audio accompaniment asks participants to identify with a gay male character named “Dave,” who interacts with Jim in several sexual scenarios (described later). Jim is portrayed as a sexually assertive individual who is eager to have sex with Dave. In the course of the scenarios, Jim makes sexual advances toward Dave, such as offering a glass of wine, touching him, and kissing him. These advances were defined as “choice points” where the participant was forced to choose between a safer or a riskier behavior by clicking on the desired option. Thus, the video was interactive and took approximately three minutes to complete.

Four different scenarios relevant to MSM were used to set the scene in which the risk-exposure and role-play tasks unfolded (described later). These descriptions were narrated to participants prior to the onset of the interactive tasks.

Scenario 1—Dave has been at a party for most of the evening, where he bumped into Jim, an old friend. Dave had never had sex with Jim, but he had always been attracted to him, and seeing Jim again really brought back all of Dave's old feelings. The two of them flirted most of the evening and, by the end of the night, all they could think about was leaving the party so they could finally be alone.

Scenario 2—While Dave was out at a party, he met up with Jim, a guy he had been seeing for a few weeks. Dave was happy they met up because he had been horny all night and Jim's pretty hot. They make out at the party for awhile, but both feel like they want to go somewhere more intimate.

Scenario 3—Dave is on a date with Jim, a guy he has been interested in for awhile. Everything has gone really well, and their attraction and desire for each other are intense. As they leave the restaurant where they had dinner, both are thinking about what might happen next.

Scenario 4—Dave just had a date with Jim, a guy he has been seeing for about one month. They both always have a good time, especially when they end up going home together. They have had sex before, but they have always used a condom. In fact, both men have been thinking about how good the sex usually is and whether it is going to happen tonight.

Scripts for each scenario were created based on the choice points and the setting in which the scenario unfolded. Each scenario was filmed with two different male couples, creating a pool of eight potential interactive videos (1a, 1b, 2a, 2b, 3a, 3b, 4a, and 4b). A professional production company cast and produced the videos, as in our previous research (Maisto et al., 2002; Maisto, Carey, Carey, Gordon, & Schum, 2004; Maisto, Carey, Carey, Gordon, Schum, & Lynch, 2004). Participants viewed a random selection of four of the eight videos (based on feedback from early participants that viewing all eight videos was too burdensome), with the intention that two of the eight videos would be selected for use in the experimental study.

Risk-exposure task—Risk exposure has not been a dependent variable in published alcohol–sexual risk research. The rationale for its use is based on beliefs and practices that are evident in the HIV intervention literature. A substantial body of research has established the importance of situational factors that increase the likelihood of unprotected sex (Blanton & Gerrard, 1997; Seage et al., 1998). For this reason, a central component of many risk-reduction interventions is the identification of strategies for avoiding “high-risk” situations in which risky sex occurs (Kelly, 1995). Typically, participants are encouraged to identify a hierarchy of risk “triggers” that, when activated or present, increase the likelihood of risky sex. The analog risk-exposure measure that we developed represents such risk gradients.

Choice points—For the purpose of developing the risk-exposure measure, we adapted the Read et al. (2006) video, so that it presented five choice points; at each choice point, two options were presented (“yes” or “no”). For the planned experimental study, a participant views the next choice point only if the participant (who has taken the role of Dave) makes the riskier choice (yes). Otherwise, the video ends at the point of the first lower risk decision. In this study, however, every participant viewed the entire risk-exposure video regardless of his response. This ensured that the entire risk-exposure video was viewed by each participant, allowing for more accurate responses to the dependent measures of interest. Thus, the actual score on the risk-exposure task was not of central importance to this study, and these scores are not reported here.

The five choice points for the risk-exposure task varied slightly, dependent on the scenario in which the risk exposure unfolded. In all of the scenarios, the first choice point was, “Do you go with Jim to his apartment?” The second choice point for Scenarios 1, 3, and 4 was, “Do you accept a drink from Jim?,” whereas the second choice point for Scenario 2 was, “Do you accept a massage from Jim?” The third choice point for Scenarios 1 and 2 was, “Do you go upstairs with Jim?,” whereas the third choice point for Scenarios 3 and 4 was, “Do you get in the hot tub with Jim?” The fourth and fifth choice points were the same for all scenarios, and asked the participant if he would have anal sex with Jim (the fourth choice point), and then if he would have barebacked, receptive anal sex with Jim (the fifth choice point). This final choice point was also the scene for the role-play task, which is described next.

Role-play task—Once the participant completed the entire risk-exposure task, the role-play task was initiated. The narrator told the participant that he was about to complete a brief role-play task where he would have to make a verbal response to Jim's remarks. The participant was told to once again take the role of Dave and to respond to Jim's prompts as if he were actually in the situation by speaking directly into a small microphone located next to the computer monitor (all audio recordings were stored directly on the computer). The participant engaged in two practice role-plays that were nonsexual in nature to become familiar with the computer program. After the practice session, the participant was told that the actual role-play scenario was about to begin. He was then returned to the bedroom scene where the fifth choice point had occurred, where both Dave and Jim are on the verge of engaging in anal intercourse. Jim articulates his desire to have anal sex without a condom, adding that there is no cause for concern because he is “safe” (Prompt 1). The video then paused for 60 sec while the participant responded. After this pause, Jim delivered a second, more insistent, prompt that reminded the participant that unprotected anal sex (with Jim) would not be risky and that it would be very pleasurable. The video then paused for 60 sec while the participant responded, after which the program terminated. All audio recordings were stored directly on the computer.

Results

Eight participants viewed Scenarios 1a, 2b, 4a, and 4b; and six participants viewed Scenarios 1b, 2a, 3a, and 3b. As can be seen in Table 3, Scenarios 1b and 3a had the highest mean ratings of realism (5.17 and 5.00, respectively), arousal (4.00 and 4.17, respectively), and attractiveness (4.17 and 3.83, respectively), as well as acceptable levels of difficulty (3.00 and 2.00, respectively). Thus, Scenarios 1b and 3a were selected for inclusion in the experimental study.

In regards to the role-play task, responses indicated that participants were engaged with the task and had no trouble identifying with the role of Dave. The majority of the participants declined Jim's request to have sex without a condom; however, there was some variability in

the reasons given to justify this decision. Responses generally touched on themes of personal safety, trust, or annoyance at Jim's sexual assertiveness. Some participants were very brief and direct with their response by simply stating, "No," "I only have safe sex," or "No glove, no love." Others provided more elaborate justifications, as can be seen in the following examples:

Well, if we are going to have sex we definitely need to have a condom on because it's just not going to happen like any other way. You know we don't really know each other well and ya know we need to both be safe for each other—so we have to use it. Ya know ... it's the only way it's goin to go down. I'm not about to risk my life for anybody, and you really shouldn't be doin it like that either.

You know I can't trust you! I don't know how many other people you slept with like yesterday or the day before or whatever. When's the last time you got tested? I got tested? It just ... you know it's just not going to happen like that so

General Discussion

These procedures adapted an existing computer-administered sexual risk-reduction intervention for use as a laboratory measure of sexual risk taking. This laboratory measure is innovative and will allow experimental research on the sexual behavior of MSM that improves on self-report in response to risk scenarios. However, it is also important to acknowledge several limitations.

Role-play measures have been valued because they provide an opportunity to observe a behavior of interest directly, instead of relying on more indirect self-report measures. However, the external validity and utility of role-play measures rests on the assumption that an individual's performance in a role-play corresponds to his or her behavior in the natural environment (Meier & Hope, 1998). Unfortunately, the concordance between behavior displayed in analog and real-life situations is imperfect due to factors in real-life situations that can affect behavior and that are difficult to simulate in analog situations. This difficulty is enhanced in behavioral simulations and role-plays of sexual behavior (McConaghy, 1998). However, the videotaped role-play and risk-exposure tasks that we have used in prior research with heterosexual men and women have been rated by participants as realistic and mildly arousing (e.g., Gordon & Carey, 1996; Gordon, Carey, & Carey, 1997; Maisto et al., 2002; Maisto, Carey, Carey, Gordon, & Schum, 2004; Maisto, Carey, Carey, Gordon, Schum, & Lynch, 2004); further, in these Maisto et al. studies, skills scores showed small to medium negative correlations with unprotected sex (for both men and women); data also showed small to large positive correlations between condom attitudes and skills scores (measured only in men). Lastly, according to Read et al. (2006), computer-based interventions, compared to other laboratory techniques (e.g., written narrative stories), create the opportunity to (a) more fully connect to the story and characters on an emotional level, (b) become more engrossed or "absorbed" in the narrative, and (c) more realistically approximate a real-life sexual encounter. For Read et al. (2006), this translates into "more automatic activation of learned behavioral responses" (p. 20), such as safer sex practices. For our planned experimental research, this enhances the likelihood that the responses to the risk-exposures and role-play tasks are valid. It should be noted that, similar to the erotic film clips, at present, the procedures and findings established through the role-play are biased toward Caucasian MSM. Future research would benefit from efforts to develop role-play scenarios tailored to other subgroups, such as African American MSM.

In sum, Study 2 described a method for creating analog measures of risk-exposure and behavioral skills in a risky sexual situation for use in a laboratory setting. Read et al. (2006) already demonstrated how virtual environments provide an effective way to deliver sexual risk-reduction interventions. Now, this type of computerized, interactive interface can be

used to test hypotheses regarding the theorized causal relationship between alcohol and sexual risk behavior.

Conclusion

This article described the development of a methodology to investigate high-risk sexual behavior among MSM populations in a laboratory setting. Formative research such as this can help to facilitate experimental research and enhance our understanding of sexual decision making and risk behavior in ways that correlational research cannot. Together, correlational and experimental research can optimize the external and internal validity of research, increase knowledge, and ultimately inform interventions that can help to reduce the incidence of HIV and other STDs among MSM.

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Table 1

Mean (Standard Deviation) Responses and Film Clip Length^a for Attractiveness and Arousal of Erotic Film Clips for Potential Use in Main Experimental Study

DVD	Film Clip (Length in Seconds)	Arousing		Attractive	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
A ^b	a1 (120)	3.20	1.56	2.08	1.93
	a2 (47)	3.60	1.73	2.40	2.11
B ^c	b1 (95)	3.20	2.04	3.10	2.37
	b2 (99)	3.70	1.93	2.80	1.83
	b3 (35)	2.80	1.54	1.90	1.54
	b4 (20)	2.40	1.50	1.80	1.72
	b5 (64)	2.50	1.51	2.20	1.93
	b6 (12)	2.40	1.50	1.80	1.72
C ^d	c1 (119)	1.67	1.61	1.92	2.27
	c2 (75)	2.58	2.39	3.08	2.11
	c3 (30)	2.08	1.78	2.08	1.78
	c4 (17)	3.17	1.85	1.92	2.11
	c5 (35)	2.42	2.39	2.00	2.22
D ^e	d1 (12)	1.42	1.51	1.92	1.98
	d2 (49)	3.08	1.88	2.75	2.26

Note. Means based on Likert-type scales ranging from zero to six.

^aGrand means: film clip=58.36 sec (range=12–120); arousing=2.70 sec (range=1.42–3.70), attractive=2.28 sec (range=1.80–3.10).

^bGrand means: arousing=3.40, attractive=2.24.

^cGrand means: arousing=2.92, attractive=2.36.

^dGrand means: arousing=2.38, attractive=2.20.

^eGrand means: arousing=2.25, attractive=2.34.

Table 2

Mean (Standard Deviation) Responses for Attractiveness and Arousal of Erotic Film Clips for Main Experimental Study

Combined Film Clip	<u>Arousing</u>		<u>Attractive</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>1 (AC)</i>	<i>3.00</i>	<i>2.65</i>	<i>3.00</i>	<i>2.65</i>
2 (BD)	3.00	4.24	0.50	0.71
3 (CA)	2.00	0.00	2.50	0.71
<i>4 (DB)</i>	<i>2.00</i>	<i>2.65</i>	<i>3.33</i>	<i>1.15</i>

Note. Means based on Likert-type scales ranging from zero to six. Items in italics represent the clips chosen for the analog study.

Table 3

Mean (Standard Deviation) Responses for Difficulty, Realism, Attractiveness, and Arousal of Interactive Role-Play Scenarios

Scenario	<u>Realistic</u>		<u>Arousing</u>		<u>Attractive</u>		<u>Difficult</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1a	3.88	1.81	2.50	1.69	2.88	1.64	1.13	1.81
1b	<i>5.17</i>	<i>1.17</i>	<i>4.00</i>	<i>1.90</i>	<i>4.17</i>	<i>2.40</i>	<i>3.00</i>	<i>2.00</i>
2a	4.33	1.63	3.67	1.97	3.50	1.64	2.67	2.25
2b	4.50	1.63	2.63	1.77	3.38	1.69	1.88	1.96
3a	<i>5.00</i>	<i>1.10</i>	<i>4.17</i>	<i>1.72</i>	<i>3.83</i>	<i>1.83</i>	<i>2.00</i>	<i>1.67</i>
3b	5.00	1.10	3.50	2.26	3.67	2.34	1.33	1.21
4a	4.50	1.07	2.63	2.07	3.00	1.85	1.50	1.77
4b	4.00	1.31	2.50	1.77	3.00	1.85	2.13	1.96

Note. Means based on Likert-type scales ranging from zero to six. Items in italics represent the clips chosen for the main experimental study, a=first set of actors; b=second set of actors.