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Reducing HIV Stigma: A Common Group Identity Perspective

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Running Head: REDUCING HIV STIGMA

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Abstract

The HIV/AIDS epidemic affects many individuals worldwide. Coupled with this epidemic is stigma levied against infected individuals. HIV stigma involves feelings of repulsion, discomfort, blaming, and sanctions. I attempted to combat HIV stigma by targeting emotional, motivational, and behavioral underpinnings in an intervention video. In this video, I manipulated: 1) whether the intervention speaker shared a group membership (IWU affiliation) with the audience and 2) the speaker's HIV status. I hypothesized that, when the speaker was affiliated with IWU and was HIV-positive, stigma would be reduced. Seventy-one IWU students watched the intervention video, and then I assessed participants' HIV-related implicit and explicit attitudes, group affiliation, and behavioral intentions. Both speaker status and group identity predicted overall explicit stigma, particularly for the sanction and comfort subscales. Students' affiliation to IWU was also modified by the intervention as hypothesized. Based upon these results, the Common Ingroup Identity Model appears to be a fruitful model for fostering HIV stigma reduction.

"The dominant feature of this first period was silence, for the human immunodeficiency virus (HIV) was unknown and transmission was not accompanied by signs or symptoms salient enough to be noticed. During this period of silence, spread was unchecked by awareness or any preventive action and approximately 100,000-300,000 persons may have been infected" –Jonathan Mann, 1989

The first recognized cases of HIV occurred in the United States in the early 1980s. A number of gay men in New York and San Francisco suddenly began to develop rare opportunistic infections and cancers that seemed stubbornly resistant to any treatment. At this time, HIV did not yet have a name, and, as Mann noted in the quote above, silence surrounded this unidentified infection. From the lack of acknowledgement of the infection grew a lack of information and knowledge of the infection. This period of silence eventually led to stigma-laden viewpoints and preconceived notions about those infected with HIV. Also, the initial link to the gay community would have lasting negative repercussions for the way the world viewed HIV. HIV's link to the gay community spawned the terms "Gay Compromise Syndrome" and "Gay-Related Immune Deficiency." In short, the silence surrounding the disease and the link to the gay community made HIV a taboo topic. Even today, though HIV is not linked to the gay community and many are talking about HIV and working toward a cure, HIV sufferers must deal with stigma and discrimination in addition to the health aspects of the disease (Abrahams, n.d.).

HIV Stigma Formation

Those impacted by the global pandemic of HIV/AIDS face social responses of fear, repulsion, blaming, sanctions and a lack of behavioral support. Across the world, stigma, defined as "reproachful characterization" (Webster, 1913), is a potent weapon used against those individuals or groups that are targeted. By blaming certain individuals or populations for the HIV pandemic (e.g., homosexuals, injection drug users, and sexually promiscuous persons), society can rid itself from the impending responsibilities associated with alleviating the social rejection

and ridicule that HIV-infected individuals have to endure. As previously mentioned, certain negative HIV-related associations exist, and these associations further reinforce and legitimize the ever-present stigmatization. HIV has been associated with: (1) punishment (e.g., HIV results from immoral behavior), (2) crime (e.g., In the HIV pandemic, who are the innocent and guilty victims?), (3) war (e.g., Should we fight the individual or the disease?), (4) horror (e.g., Infected individuals are repulsive and feared), and (5) separateness (e.g., HIV-positive individuals are branded as outsiders). This stigmatization can even be imposed by family members, individuals in workplace settings, and the health care system (Fredriksson & Kanabus, 2006).

In an attempt to better understand the formation and representation of stigma, Peters, Burraston, and Mertz (2004) proposed the Emotion-Based Model of Stigma-Susceptibility. According to this model, the interaction of affective reactivity, which is defined as the responses to perceived risks, and worldviews, defined as generalized attitudes toward the environment and its social organization, activates certain emotional appraisals. Based on this model, emotional appraisals are "effortless, intuitive, and automatic evaluations that are sensitive to events related to survival and opportunities" (Peters et al., 2004, p. 1352). Subsequently, emotional appraisals can often result in negative emotional responses, risk perceptions, and finally, stigma responses, completing the process known as stigma susceptibility.

The Emotion-Based Model of Stigma-Susceptibility posits that cognitive appraisals of emotion and resulting stigma responses are unique to the individual such that reactions to events occurring in the world around a person and individual differences in affective reactivity ultimately influence the creation of stigma. For instance, Peters et al. (2004) showed that participants rated stigmatized radiation sources (e.g., radioactive waste from nuclear power plants and radiation from nuclear weapons testing) as higher in the negative emotional reactions

of fear and anger and greater in perceived risk and negative effects than non-stigmatized

radiation sources. In other words, stigma susceptibilities are appraisal-based processes through

which information about events is interpreted resulting in emotional, motivational, and

behavioral responses (See *Figure 1.* Emotion-based model of stigma susceptibility).

Combating HIV Stigma

As the Emotion-Based Model of Stigma Susceptibility delineates, stigma has emotional,

motivational, and behavioral components. Combating stigma successfully will probably involve

targeting all three of these components.

Theoretical framework. Though there is no model of stigma reduction that specifically

outlines how to overcome individuals' emotional, motivational, and behavioral stigma-related

responses, I modified Fisher and Fisher's (1992) Information-Motivation-Behavioral Skills

(IMB) Model, a model originally conceptualized to understand and promote health-related

behavior, into an HIV-stigma reduction model. According to the model, the extent to which

individuals are well informed, motivated to act, and possess effective behavioral skills influences

the likelihood of maintaining health-promoting behaviors. On the other hand, individuals will

tend to engage in risky health risk behaviors, and likewise, experience negative health outcomes

as a result of being poorly informed, unmotivated to act, and lacking the necessary behavioral

skills to act efficiently and effectively (Fisher, Fisher, & Harman, 2000).

The first component of the IMB model, *information*, relates to educating the target

audience about HIV. More specifically, HIV-related knowledge involves implicit associations, or

automatic beliefs that do not require cognitive effort to elicit but which may often relate to

incorrect judgments (e.g., "HIV is always caused by immoral behaviors"). Moreover, it involves

associated heuristics, or the simple rules that allow involuntary and cognitively effortless

decisions about a group of individuals or an idea (e.g., "Most homosexuals have HIV"). Incorrect knowledge, such as HIV transmittance and prevalence rates, could potentially lead to stigma. This is why the *information* component is reminiscent of the cliché "knowledge is power," in contributing to the reduction in stigma.

Secondly, *motivation*, or discussing negative consequences of HIV stigma in order to motivate perceivers to consequently reduce stigma, relates to the willingness or desire to overcome biased, stigma-related beliefs. This construct influences whether individuals wish to experience more positive attitudes and/or initiate behaviors designed to circumvent stigma. The model is consistent with the idea that personal motivation and social motivation collectively influence the degree to which stigma is expressed. While personal motivation involves the motivation to act based on the needs and ideals of oneself, social motivation is the motivation to act based on attitudes, orientations or behaviors which take the interests, intentions, or needs of other people into account.

The presence or absence of *behavioral skills*, or addressing abilities and actions that can be influential in stigma reduction, also determines whether individuals are cognitively and behaviorally capable of effectively evading stigma. The concept of behavioral skills encompasses an individual's objective abilities and level of self-efficacy with regard to avoiding HIV-related stigma. As such, utilizing objective behavioral skills in order to reduce HIV stigma involves finding out as much personal information about the HIV positive individual as is possible. In addition, it involves teaching individuals how stigma is expressed and noting ways in which they can avoid this expression effectively.

As previously noted, though the model was originally developed to address the psychological determinants of HIV risk and preventive behavior, I propose to use this model as a

framework for studying HIV-stigma reduction. Currently, no stigma-related intervention has used the IMB model as a theoretical framework. With no current cure for HIV, the ongoing social challenge involves developing and implementing an effective HIV stigma intervention, thereby imparting the necessary knowledge and motivation to negate or lessen any already-present HIV-related stigma, as well as encouraging individuals to build behavioral skills that will aid in reducing these negative attitudes.

Video-based stigma-reduction interventions. In past research, video education has proven useful for improving students' attitudes and knowledge regarding HIV (Torabi et al., 2000). If used properly, a video-based health educational approach can efficiently address fears, social issues, and commonly held misconceptions relating to HIV. While a comprehensive school health education may also delineate these concerns, the video method offers a less intrusive way to educate students by eliminating the possible discomfort and embarrassment possibly present when teachers and students discuss these issues. Furthermore, video interventions convey the educational material at a low cost and in a short timeframe. A final advantage of video-based interventions involves targeting an individual viewer, which is more cost-effective and time-efficient for widespread educational campaigns as compared to executing longer term, group-oriented interventions (Paxton, 2002). Because of the established benefits of video-based stigma-related interventions, I designed an HIV-stigma related intervention that provided HIV-related information, increased participants' motivation to overcome HIV stigma, and taught related behavioral skills.

Speaker characteristics. Past research demonstrated that the characteristics of the speaker delivering an intervention can also greatly influence intervention effectiveness. More specifically, Paxton (2002) found that the HIV-status of the speaker influenced viewers' HIV

knowledge and attitudes toward HIV victims (Paxton, 2002). In this study, HIV-positive speakers were believed to be more effective than HIV-negative speakers because they were more able to successfully dispel HIV myths and misconceptions commonly held by students (e.g., believing that HIV only affects high-risk groups) and address HIV-related stigma from a first-hand perspective (Paxton, 2002). This personalization of the HIV-affected individual no longer brands the speaker an outsider, but rather allows for the viewer to empathize with the HIV-positive speaker. The speaker's insightful viewpoint offers an open, non-confrontational presentation of sexual behaviors and HIV prevention tactics. Because of the HIV-positive speakers' personal awareness of HIV, they ultimately serve as a dependable and invaluable component in the alleviation of HIV stigma. In Paxton's (2002) research, HIV positive speakers effectively decreased fear and prejudice associated with HIV, reinforced the notion of protective sexual behavior, and further increased the mentality that HIV is a surmountable obstacle.

Common Group Identity

Although the use of HIV-positive speakers was shown to be influential in altering attitudes toward HIV and the risk perception of HIV, research also suggests that when individuals share group membership, they are more likely to persuade and influence one another (Dovidio, Gaertner, & Kafati, 2000). Because most of the participants in HIV-stigma studies are not, themselves, HIV-positive, perhaps an HIV-positive intervention speaker who also shares a group membership with the stigmatizing individual may be even more influential at reducing HIV-related stigma in the perceiver. Perhaps, if an intervention speaker shares a common group membership with a perceiver, the speaker will be perceived as more believable and credible; therefore, the speaker's message may be perceived as even more persuasive.

Shared group membership is synonymous with the concept of common group identity, which is explained in the Common Ingroup Identity Model (Dovidio, Gaertner, & Kafati, 2000). This model recognizes that stigma may be a result of inaccurate perceptions about members of outgroups. For example, "Only disgusting people get HIV infection." According to this perspective, then, stigma can be diffused if individuals can recategorize outgroup members as ingroup members. For instance, in this case, those who are HIV-positive could be included as members of a common superordinate category, or the same "team." This process works because, upon recategorization, individuals perceive stigmatized targets as members of their ingroup rather than members of their outgroup, thereby creating a sense of interdependence among group members. In other words, upon activation of superordinate social identity, "people come to perceive themselves more as interchangeable exemplars of a social category than as unique personalities defined by their individual differences from others" (Turner et al., 1987, p. 50). In general, more positive evaluations and less blame toward the formerly stigmatized group then result, hypothetically resulting in more peaceful intergroup relations (Nier et al., 2001).

To test these ideas, Gaertner, Rust, Dovidio, Bachman, and Anastasio (1994, 1996) conducted a survey study within a multi-ethnic high school to examine the intergroup perceptions of African-American, Chinese, Hispanic, Japanese, Jewish, Korean, Vietnamese, and Caucasian students. They found that students who perceived their student body as one group, or players on the same team (instead of several different ethnic groups playing on 'different teams'), displayed more positive affect toward other ethnic groups. In this study, after a more superordinate category ("our school") was activated, ingroup members perceived themselves to be more similar, and thus, less differentiated from the self, resulting in more positive emotions toward students of different ethnicities from their own. Similarly, it has also been shown that it is

useful to introduce factors (e.g., common goals) that are shared by members of separate groups. It is believed that priming a common identity transforms the "Us"/"Them" mentality to an all-inclusive "We" thought pattern. Because it is more unlikely that individuals will stigmatize members of their own ingroups, this process successfully reduces stigma levels (Dovidio, Gaertner, Niemann, & Snider, 2001).

Stigma Assessment

Explicit assessment. Stigma is most commonly assessed using explicit, self-report measures containing items designed to measure more "rational attitudes." The HIV Attitude Scale, which will be used within my study and discussed in further detail later, categorizes participants' explicit attitudes associated with HIV based on a set of subscales: (1) sanctions, reflecting the notion that HIV-positive individuals deserve a lack of social acceptance; (2) comfort, defined as the level of psychological ease around HIV-positive individuals; (3) blame, or finding fault with somebody; (4) repulsion, defined as a feeling of disgust or very strong dislike; or (5) behavioral support, which involves actively helping and encouraging someone.

Implicit assessment. One problem that can arise when people must explicitly express their attitudes concerning HIV is their reluctance to self-report their true feelings, due to pressures to conform to what is socially acceptable. This phenomenon is known as the social desirability bias. In other words, it is generally not socially acceptable to outwardly report stigma against most social groups. To alleviate this response bias and circumvent participants' inhibitions to self-report, many social psychologists have utilized a more implicit way to assess the associations individuals have between various social groups and negative constructs.

Implicit attitudes are preferences that exist outside of conscious awareness or conscious control (Nosek & Banaji, 2001). Thus, implicit attitudes can be characterized as the automatic

association people have between an object and an evaluation or other construct. Implicit measures assess evaluation in constrained conditions that include different characteristics of automaticity: unawareness, uncontrollability, lack of intention, or efficiency of processing. Assessing implicit associations involves the use of response latency measures that measure people's implicit attitudes or beliefs indirectly (i.e., without asking people what they feel or think). That is, people's attention is focused not on the attitude object, but on performing an objective task, and implicit attitudes are then inferred from systematic variations in task performance.

The Go/No-Go Association Task (GNAT; Nosek & Banaji, 2001) is one such measure of participants' implicit associations. To complete the task, participants are asked to categorize a series of words and pictures by using a single response key. Two category labels remain at the top of the screen. The to-be-categorized words and pictures then appear one at a time (for a short interval, such as 1000ms or 1 second) in the middle of the computer screen. Participants are instructed to hit a response key if the to-be-categorized stimulus fits into either one of the categories represented at the top of the screen. If the to-be-categorized stimulus does not fit into either category, participants are instructed to do nothing (i.e., let the stimulus pass). The assumption behind the GNAT is that participants will be able to respond more quickly when constructs that are paired together in memory are paired together in the categorization task. For example, if participants associate HIV with negativity, they should be quicker to categorize all stimuli when the "HIV" and "negative" category labels are at the top of the computer screen.

Several studies have demonstrated the malleability or changeability of implicit attitudes. More specific to this line of inquiry, Rudman, Ashmore, and Gary (2001) found that implicit associations can be modified by refocusing individuals' attention on group members' qualities

that are similar to their own or by establishing counterstereotypic connections in the cognitive network (e.g., those who express appreciation for, rather than elimination of, group differences, such as common interest in a sports team, have an easier and more successful chance of making group membership salient).

Implicit and explicit evaluations are related but distinct constructs. As previously noted, the relationship between these two types of evaluations corresponds to an individual's self-presentation concerns. Including both types of evaluations is important, however, because Neumann, Hulsenbeck, and Seibt (2004) found that implicit attitudes reflect more emotional responses such as fear, abhorrence, and pity to stigmatized groups, but explicit responses may tap more rational attitudes, as previously noted. By focusing individuals' attention on the intervention speaker's common group membership, I hope to reduce both implicit and explicit HIV-related stigma in study participants.

The Current Research

HIV/AIDS, the latest stigmatized disease and ever-growing pandemic, has received insufficient focus in the area of stigma reduction. Although many of the current HIV interventions attempt to raise knowledge levels and weaken stigmatizing attitudes, these interventions solely incorporate an informational approach (Brown, Macintyre, & Trujillo, 2003). In one such study, Ashworth et al. (1994) had little success changing stigma-related attitudes two months after an information-only intervention. From those results, it is apparent that education by itself is insufficient to alter attitudes and/or behavior toward HIV-positive individuals. As such, the current research will use the Information-Motivation-Behavioral Skills Model (Fisher, Fisher, & Harman, 2000) as a framework for studying stigma reduction as part of a video-based intervention.

In addition, no studies have examined the influence that priming a common group identity may have on HIV-stigma reduction. As such, in the current research, the intervention speaker will either be characterized as an Illinois Wesleyan student (which reflects a common group membership with the current participants) or not. Furthermore, the speaker will also be identified as either HIV-positive or HIV-negative within the video (which signifies the HIV status of the speaker).

More specifically, the following are the hypotheses that were tested in this study:

Hypothesis 1: Explicit Stigma. Regarding explicit stigma, I expected to find a two-way interaction between common group identity and HIV-status, such that participants who viewed the intervention message from the HIV-positive Wesleyan student would report the least amount of explicit stigma (in the form of increased comfort and behavioral support and decreased sanctions, repulsion and blaming) and participants who viewed the HIV-negative, non-Wesleyan student would report the most amount of stigma (in the form of decreased comfort and behavioral support and increased sanctions, repulsion and blaming).

Hypothesis 2: Common Group Identification. For the group identification variable, I also expected to find a two-way interaction between common group identity and HIV-status, such that participants who viewed the intervention message from the HIV-positive Wesleyan student would report increased affiliation with Wesleyan (which is an indication of decreased stigma directed toward the HIV-positive, Wesleyan speaker) and participants who viewed the HIV-negative, non-Wesleyan student would report the least amount of Wesleyan affiliation.

Hypothesis 3: Implicit attitudes. I also predicted that participants who viewed the HIV-positive, Illinois Wesleyan University speaker would experience the least amount of implicit stigma, and therefore a stronger association between HIV-related pictures and words relating to

the self ("me"). On the other hand, I predicted that individuals viewing the HIV-negative, non-IWU speaker would experience the most amounts of stigma, and thus a stronger association between HIV-related pictures and words not relating to the self ("not me").

Furthermore, I expected to find similar results for the approach/avoidance implicit tasks (described below), such that participants who viewed the HIV-positive, IWU speaker would have less stigma and a stronger association between HIV-related pictures paired with "approach" words, while those viewing the HIV-negative speaker who was not from Illinois Wesleyan would have a stronger association between HIV-related pictures and "avoidance" terms, reflecting more implicit stigma.

Hypothesis 4: Behavioral Measures. I predicted that participants who viewed the HIV-positive, IWU–affiliated speaker would report an increased intention to participate in action-oriented contributions related to reducing HIV stigma. On the other hand, I predicted that those viewing the HIV-negative, non-IWU student will have decreased intention to participate in HIV-advocacy related behaviors.

Hypothesis 5: Intervention Perceptions. I predicted that perceptions of the intervention would not differ based upon which video was viewed because each video provided the same information, motivation, and behavioral skills related content directed at reducing HIV stigma.

Method

Participants

Participants were 77 students (69% female) from Illinois Wesleyan University with mean age 19.12 (SD = 1.08). Students were recruited via the general psychology and social psychology classes. Participants in general psychology received course credit while those in

social psychology received extra credit in exchange for their participation. All participants were at least 18 years old.

Procedure: Session 1

The study took place in two sessions approximately two weeks apart. When participants arrived at Session 1 in groups of one to ten, they were be greeted by the female experimenter and instructed to sit at a computer within a large computer lab. At this point, the study was briefly explained and informed consent was obtained. Participants then completed the Session 1 measures (explained below) using Media Lab software. Upon completion of these measures, participants provided contact information for Session 2, were thanked and dismissed.

Measures: Session 1

Demographics. Participants provided basic background information including age, gender, race, class, major, and number of HIV-positive individuals known.

HIV-Knowledge Questionnaire (HIV-K-Q). The HIV-K-Q consisted of 45 items designed to measure knowledge about the transmission, prevention, and consequences of HIV infection. Participants responded to each item with *True, False,* or *I Don't Know.* The total score was obtained by summing the number of correctly answered items. Responding *I Don't Know* was considered an incorrect response. As such, scores ranged from 0 to 45, where higher scores implied greater knowledge of HIV (see Appendix C for the HIV-Knowledge Questionnaire).

Twenty-Statements Test (TST). This test assessed self-identity and self-attitudes. Participants were instructed to answer the question "Who am I?" twenty times. They completed the statements as if they were describing themselves (Fredrickson, 1998). In this study, participants' self-descriptions were used to individualize their responses to one of the implicit

association tasks, the me/not me Go/No-Go Association Task, which will be described in a later section (see Appendix D for specific format of this test).

Procedure: Session 2

Participants returned approximately two weeks later to complete Session 2. Upon arriving at the laboratory, participants first viewed one of four versions of the video-based intervention described below. Upon completion of the intervention video, participants completed all implicit and explicit measures also described below. Immediately following the completion of the study, participants were thoroughly debriefed and thanked for their participation.

Intervention. Upon arriving at the lab for Session 2, participants viewed one of four video-based interventions featuring the same female speaker. The versions of the intervention included intervention content delivered by either: (1) an HIV-positive speaker wearing a green Illinois Wesleyan sweatshirt; (2) an HIV-negative speaker wearing a green Illinois Wesleyan sweatshirt; (3) an HIV-positive speaker wearing a green sweatshirt with no writing on it; or (4) an HIV-negative speaker wearing a green sweatshirt with no writing on it. The video lasted approximately thirteen minutes (see Appendix A for a transcript of the intervention content). The manipulation of the HIV-status of the speaker was achieved by her claims that she was either HIV-positive or HIV-negative several times throughout the video.

Measures: Session 2

Intervention Perceptions. The participants' perceptions of the intervention's effectiveness were assessed through the Intervention Perceptions Questionnaire ($\alpha = .929$). This 20-item scale measured the overall effectiveness of the intervention video. Participants were asked to respond to each of the 20 items using a 1-7 scale where 1 indicated "Not at all true" and 7 indicated "Extremely true" (see Appendix E for the Interventions Perceptions Questionnaire).

Go/No-Go Association Tasks (GNAT). As previously mentioned, the GNAT is a measure

of participants' implicit associations with a single category of either evaluative words or other

relevant constructs. The GNAT works by presenting target (signal) and distracter (noise) stimuli

for brief time periods, in this case 1000 ms. In this task, two category labels were placed at the

top of the computer screen (e.g., HIV and approach). Participants were instructed to 1) press the

space bar (which reflects "go"ing) when stimuli from either of the target categories appeared on

the screen and 2) to not press any key ("no-go") when stimuli not belonging to either target

category appeared. As participants progressed through the GNAT, a red "X" appeared when

participants responded incorrectly to a stimulus (i.e., either by pressing the space bar when, in

actuality, the stimulus did not belong to either of the represented categories or by not pressing

the space bar when the stimulus did actually belong to one of the target categories. Similarly, a

green "O" appeared on the screen when signal items were correctly responded to as signals (hits)

or noise items (distracter trials) were correctly rejected (i.e., the space bar was not pressed). Each

stimulus remained on the screen for 1000 ms.

In this study, two GNATs were completed, each including two blocks of 80 trials. The

first assessed associations between HIV and "me/not me." The GNAT measured implicit, or

underlying cognitive attitudes, toward a single category (in my case, HIV-related pictures).

Furthermore, the GNAT assessed automatic preferences for pictures (HIV) paired with words

("me/not me") in order to measure individual attitudes toward HIV stigma within a set response

time. In the HIV, me/not me GNAT, twenty stimuli (five HIV, five not HIV, five me, and five

not me) were randomly presented in the middle of the computer screen four times each. The

me/not me words on the screen were obtained from each participant's Twenty-Statements Test.

Phrases listed toward the top of their twenty responses were thought to be highly associated with

participants' self concepts. As such, those words were chosen as the "me" words displayed in the

GNAT. Opposites of those words were then chosen to represent the "not me" words. The

HIV/not HIV categories were represented with 3.5 cm X 3.5 cm pictures. Pictures for the HIV

category were symbolic of HIV-related signs, themes, and organizations (e.g., red ribbon) (see

Table 2). Conversely, "not HIV" pictures presented diseases unrelated to HIV, such as breast

cancer, which was represented by the pink ribbon, and heart disease, which was represented by

the American Heart Association red heart (see Table 3).

The second GNAT assessed associations between HIV and "approach/avoidance." This

task also included two blocks of 80 trials each. Here again, the GNAT was applied to measure

implicit associations of HIV stigma when asked to pair HIV-related pictures with

avoidance/approach words. The response latency of the task was indicative of the strength of

their association between the pictures (HIV) and words (approach/avoidance), and therefore their

level of HIV stigma. Words representing approach and avoidance can be found in Appendix

Table 1.

HIV Attitude Scale (HAS; α = .917). The HAS measures attitudes and feelings toward

HIV and HIV-infected individuals. It differentiates between those who are more tolerant and

empathetic toward HIV-positive individuals from those who are not as tolerant and

understanding. It includes the following subscales: comfort level (15 items; α = .844), behavioral

support (6 items, α = .311), sanctions (18 items; α = .821), repulsion (8 items; α = .760), and

blaming (3 items; α = .647). Because the reliability of the behavioral support items was not

satisfactory, it was not analyzed further.

Participants responded to the 54 items in the HAS by using a five-point Likert scale

where "1" represented strongly disagree and "5" represented strongly agree. The HAS is a

modified version of the original AIDS Attitude Scale (Shrum, Turner, & Bruce, 1989). Within

the original scale, half of the items refer to AIDS while the other half refers to HIV. For the

purpose of my study, all of the items were changed to "HIV." To score the scale, the 29

intolerant items were reverse-scored and the mean was then calculated. Higher scores

represented reduced stigma toward HIV-infected individuals (see Appendix F for items).

Ingroup Identification Scale (Hogg & Hains, 1996; α = .950). The 8-item ingroup

identification scale assessed the extent to which participants identified themselves as a member

of the Illinois Wesleyan community. Participants responded to each item on a scale ranging from

1 ("Not at all") to 7 ("Extremely"). This scale determined whether implementing the CGI as a

component of the message delivered to participants subsequently lessened the amount of HIV

stigma, defined by increased affiliation with Illinois Wesleyan University (see Appendix G).

Behavioral Measures (20 items; α = .910). In this questionnaire, I assessed whether

participants would be willing to engage in such actions or to sign a petition in support of HIV

awareness, participate in an HIV walk and/or fundraiser, send postcards to members in the

community regarding the fight against HIV stigma or donate money toward the HIV cause. This

questionnaire measured the extent to which participants' HIV-related behavioral willingness

changed as a result of the intervention (see Appendix H for items).

Manipulation Checks. Two manipulation checks were completed at the end of session 2.

One question served as a means of ensuring that participants were aware of the common group

identity manipulation (whether or not the speaker was wearing the IWU sweatshirt). The other

question determined whether or not the participants were aware of: the speaker being HIV-

positive or HIV-negative in the video.

Results

I first assessed whether participants had properly responded to both of the included manipulation check items. Upon investigation of responses to these items, I found that six participants did not respond correctly as to whether the intervention speaker was HIV-positive or negative (n = 5) or whether she was affiliated with Illinois Wesleyan (n = 1). These participants were excluded from further analyses, leaving a total N of 71 participants.

The current research consisted of a 2 X 2 between-subjects, factorial ANOVA design. Common group identity (IWU affiliation or not) and the HIV status of the speaker (positive or negative) comprised the independent variables from the intervention. The dependent variables included explicit HIV attitudes, IWU group identification, implicit associations among HIV and me/not me and HIV and approach/avoidance, behavioral intentions, and intervention perceptions.

Knowledge as covariate

The HIV-Knowledge Questionnaire was used as a covariate to test whether the level of pre-existing HIV knowledge explained any variance in participants' HIV attitudes after the intervention video. I found that HIV knowledge was not a statistically significant covariate (*p* > .10). Therefore, HIV knowledge was not included in any subsequent analyses.

HIV Attitudes Scale

Hypothesis 1: Explicit Stigma. Regarding explicit stigma, I expected to find a two-way interaction between common group identity and HIV-status, such that participants who viewed the intervention message from the HIV-positive Wesleyan student would report the least amount of explicit stigma (in the form of increased comfort and behavioral support and decreased sanctions, repulsion and blaming) and participants who viewed the HIV-negative, non-Wesleyan

student would report the most amount of stigma (in the form of decreased comfort and behavioral support and increased sanctions, repulsion and blaming).

To test hypothesis 1, I assessed intervention effects on explicit HIV stigma by first conducting a 2 (CGI: yes, no) X 2 (HIV status: positive, negative) between-subjects ANOVA with overall stigma, which was calculated by combining the items from all four HIV Attitudes Scale subscales into an overall score, as the dependent measure. As predicted, there was a significant two-way interaction among CGI and HIV-status, $F(2, 70) = 2.715, p = .052$, but no main effects of either HIV status or CGI emerged. To analyze this interaction pattern more fully, I then used planned comparisons to examine which means were significantly different from one another. As hypothesized, participants who viewed the Illinois Wesleyan affiliated, HIV-positive speaker reported significantly less stigma than participants in any of the three other conditions, $t(67) = 2.833, p = .006$ (See *Figure 2*. Intervention impact on overall explicit stigma).

Because the HIV Attitudes Scale included four subscales, I then conducted analyses to determine which of the components of stigma were most influenced by the intervention video. To do so, I analyzed each of the subscales of the HIV Attitudes scale separately using the same 2 (CGI: yes, no) X 2 (HIV status: positive, negative) between-subjects ANOVA. Performing planned comparisons for the sanctions subscale revealed that participants who viewed the video featuring the HIV-positive speaker from Illinois Wesleyan reported less sanctions against those with HIV than those who viewed any of the other intervention videos, $t(67) = 2.230, p = .029$ (See *Figure 3*. Intervention impact on level of sanctions toward HIV-positive individuals).

The hypothesized two-way interaction between common group identity and HIV-status also emerged for the comfort subscale, $F(3, 70) = 3.084, p = .033$. To investigate this interaction more fully, I conducted planned comparisons which showed that those students who watched the

Illinois Wesleyan affiliated, HIV-positive speaker expressed a higher level of comfort with HIV-positive individuals than those participants who viewed one of the other three versions of the video, $t(67) = 3.030, p = .003$. (See *Figure 4.* Intervention impact on level of comfort toward HIV-positive individuals).

As hypothesized, the planned comparison for the repulsion subscale showed that those who viewed the video featuring the Illinois Wesleyan affiliated, HIV-positive speaker reported lower HIV-related repulsion than other participants, $t(67) = 2.308, p = .024$ (See *Figure 5.* Intervention impact on level of repulsion toward HIV-positive individuals). However, the intervention video did not significantly alter reported sanctions against those who are HIV-positive, $F(2, 70) = 1.713, p = .173$; likewise, there were no main effects of either HIV status or CGI for this dependent measure. For the repulsion subscale, there were no main effects of HIV speaker status or CGI.

Lastly, I then analyzed the pattern of results for the blame subscale. The ANOVA two-way interaction between CGI and HIV-status was not significant, $F(2, 70) = 1.130, p = .343$. This time, the intervention video including the Illinois Wesleyan affiliated, HIV-positive speaker did not significantly influence participants to lower the amount of blame lobbied toward HIV-positive individuals, $t(67) = -.123, p = .902$ (See *Figure 6.* Intervention impact on level of blaming toward HIV-positive individuals).

Ingroup Identity Scale

Hypothesis 2: Common Group Identification. For the group identification variable, I also expected to find a a two-way interaction between common group identity and HIV-status, such that participants who viewed the intervention message from the HIV-positive Wesleyan student would report increased affiliation with Wesleyan (which is an indication of decreased stigma

directed toward the HIV-positive, Wesleyan speaker) and participants who viewed the HIV-negative, non-Wesleyan student would report the least amount of Wesleyan affiliation.

In order to test hypothesis 2, I measured the level of affiliation with Illinois Wesleyan as a function of the intervention by performing a 2 (CGI: yes, no) X 2 (HIV status: positive, negative) ANOVA. This analysis revealed that students who viewed the video featuring the Illinois Wesleyan related, HIV-positive speaker reported feeling more affiliated with Illinois Wesleyan University, $F(2, 70) = 2.814, p = .046$. To investigate this interaction more fully, a planned comparison was then conducted. As hypothesized, students who viewed the video featuring the Illinois Wesleyan affiliated, HIV-positive speaker reported more affiliation with Illinois Wesleyan than those who viewed one of the other three intervention videos, $t(67) = 2.202, p = .031$ [See *Figure 7.* Intervention impact on IWU affiliation (common group identity)].

Implicit Measures: GNAT

Hypothesis 3: Implicit attitudes. I also predicted that participants who viewed the HIV-positive, Illinois Wesleyan University speaker would experience the least amount of implicit stigma, and therefore exhibit a stronger association between HIV-related pictures and words relating to the self ("me"). On the other hand, I predicted that individuals viewing the HIV-negative, non-IWU speaker would experience the most amounts of stigma, and thus reveal a stronger association between HIV-related pictures and words not relating to the self ("not me").

Furthermore, I expected to find similar results for the approach/avoidance implicit tasks (described below), such that participants who viewed the HIV-positive, IWU speaker would have less stigma and a stronger association between HIV-related pictures paired with "approach" words, while those viewing the HIV-negative speaker who was not from Illinois Wesleyan

would have a stronger association between HIV-related pictures and "avoidance" terms, reflecting more implicit stigma.

Me/Not Me. A 2 (CGI: yes, no) X 2 (HIV status: positive, negative) analysis of variance was conducted on the me/not me GNAT to test hypothesis 3. Each block of this task was analyzed separately; more specifically, associations between HIV and me as well as HIV and not me were analyzed individually. Contrary to hypotheses, participants' associations between HIV and me-related words were not influenced by the intervention videos, $F(2, 65) = .608, p = .613$. Similarly, the associations between HIV and not me-related words were not significantly influenced by the intervention video content, $F(2, 65) = 1.386, p = .255$. There was a main effect for common group identity on the "not me" task, however. Those participants who viewed either of the videos featuring the Illinois Wesleyan affiliated speaker showed a slower reaction time when matching "not me" words with HIV pictures (i.e., less stigma toward Wesleyan student; $M = 784.949, SD = 5.472$) compared to those who viewed either of the videos featuring the non-Wesleyan affiliated speaker ($M = 768.541, SD = 5.957; F(2, 65) = 4.115, p = .047$).

Approach/Avoidance. I next assessed whether implicit associations were influenced by the intervention video content. To do so, a 2 (CGI: yes, no) X 2 (HIV status: positive, negative) analysis of variance was conducted on the approach/avoidance GNAT. Each block of this task was analyzed separately; in other words associations between HIV and avoidance and HIV and approach were analyzed independently. Contrary to hypotheses, participants' associations between HIV and approach-related words were not influenced by the intervention videos, $F(2, 70) = .025, p = .994$. Similarly, the associations between HIV and avoidance-related words were not significantly influenced by the intervention video content, $F(2, 70) = .033, p = .992$.

Behavioral Measures Questionnaire

Hypothesis 4: Behavioral Measures. I predicted that participants who viewed the HIV-positive, IWU–affiliated speaker would report an increased intention to participate in action-oriented contributions related to reducing HIV stigma. On the other hand, I predicted that those viewing the HIV-negative, non-IWU student will have decreased intention to participate in HIV-advocacy related behaviors.

In order to analyze intervention influence on HIV-related behavioral intentions and therefore test hypothesis 4, I first standardized and combined all twenty behavioral intention items to create one composite measure. I then performed a 2 (CGI: yes, no) X 2 (HIV status: positive, negative) univariate analysis of variance and found no significant interaction between CGI and HIV status on behavioral intentions, $F(2, 70) = .018, p = .997$. There were also no main effects for CGI or HIV status. Upon conducting the planned comparison for the behavioral measures, once more I found no significant difference, $t(67) = .144, p = .886$.

Intervention Perceptions

Hypothesis 5: Intervention Perceptions. I predicted that perceptions of the intervention would not differ based upon which video was viewed because each video provided the same information, motivation, and behavioral skills related content directed at reducing HIV stigma.

To test hypothesis 5, I assessed whether perceptions of the intervention differed across conditions by conducting a 2 (CGI: yes, no) X 2 (HIV status: positive, negative) between-subjects ANOVA. As hypothesized, intervention perceptions did not differ across conditions, $F(2, 70) = .006, p = .999$. Thus, despite the evidence that the video featuring the Illinois Wesleyan affiliated, HIV-positive speaker successfully changed explicit attitudes in some cases, participants did not perceive this video to be any more influential and effective than the other

videos. To remain consistent with our other analysis strategy, I then performed a planned comparison analysis examining the difference in intervention perceptions between the group of students who viewed the video featuring the Illinois Wesleyan affiliated, HIV-positive speaker and the intervention perceptions of students viewing the other three versions of the video, but this analysis was non-significant, $t(67) = -.011, p = .991$.

Discussion

In sum, as hypothesized, results indicated that participants who viewed the intervention video featuring the HIV-positive Illinois Wesleyan student (as compared to any of the other versions of the video) expressed increased levels of comfort with and less repulsion and sanctions against those with HIV. Moreover, those who viewed this version of the video, as compared to the other three, reported more affiliation to IWU, also indicating a decreased level of stigma.

Also as hypothesized, participants did not find any version of the intervention video to be more effective than any other. One might have expected that participants who viewed the video featuring the HIV-positive speaker from Illinois Wesleyan would have perceived this video to be more highly effective than those participants who viewed any other version of the intervention video. However, the content of the intervention video was identical across conditions. In addition, it is likely that the intervention video featuring the HIV-positive speaker from Illinois Wesleyan influenced the participants' explicit HIV-related stigma, but that this process was occurring outside of conscious awareness. Participants may have also used different standards for evaluating the effectiveness of the intervention across conditions.

Some results did not support the hypotheses. HIV-related implicit associations did not mirror the expected pattern of results. Results did indicate that when participants viewed the

intervention video featuring the speaker from Illinois Wesleyan, they had weaker association between "not me" phrases and HIV-related pictures, indicating some level of reduced stigma. Perhaps participants who viewed the speaker from Wesleyan experienced a stronger sense of shared group membership with the speaker, regardless of her HIV status. Therefore, perhaps they found her to be more credible, and their implicit associations shifted such that they were slower to respond when pairing the "not me" words with the HIV pictures, indicating a lower degree of stigma when the speaker shared a common group identity (IWU affiliation) with the perceiver.

The intervention videos also did not significantly influence participants' willingness to devote their time, energy, and financial resources to HIV awareness or advocacy. This may have been due to a mismatch between the type of stigma-reducing behavioral skills outlined in the intervention videos and the behavioral intentions assessment used in this study. More specifically, the behavioral intentions assessed focused on participants' initiative to actively contribute to the HIV cause. In contrast, the behavioral skills section of the video focused more on increasing comfort level and contact with HIV-positive individuals in order to establish a common ground and shared interests. For example, in the video the speaker encourages listeners to, "Maintain one-on-one personal contact with the HIV positive individual to enable a more conducive atmosphere for reaching a common group interest." The video also went into great detail about expressing positive nonverbal communication toward HIV-positive individuals. Therefore, because the behavioral intentions assessed did not reflect the skills taught in the intervention video, this may be one reason for the lack of significant findings in this area. Future research should capitalize on this point such that the behavioral skills taught within the intervention should mirror the behavioral intentions assessed post-intervention. Essentially, lowering one's HIV stigma or negative attitudes toward HIV in the intervention should

consistently mirror the way in which one's behavioral initiative and advocacy of the HIV cause is assessed. (Fishbein & Ajzen, 1974).

In addition, it is possible that the Go/No-Go association tasks did not assess implicit attitudes toward HIV as I had hoped. One explanation for the insignificant results could be due to the response window participants were given to complete the tasks, which was 1000 milliseconds. Despite the fact that the relatively low error rates seemed to suggest that the task was manageable, in future research it may be advantageous to increase the response window in order to allow the participants sufficient time in which to complete the task and allow for a better measure of their association between the words and HIV pictures. The cost of doing so, of course, is that with longer response windows come less implicit (and subsequently, more controlled) responding. Another possible reason for the lack of significant results with these tasks could be the abstract nature of HIV. In other words, HIV is not a tangible object or concrete entity in comparison to a condom, for example. For this reason, it could be beneficial to make the response window longer so as to provide the participants ample time to grasp the task's objective. However, it would be crucial not to increase the response window too much because doing so would increase the risk of negating the implicit nature of the task. If participants begin to think about the associations being made, they become more like explicit attitudes instead of implicit associations. Furthermore, asking participants to associate "me" words with HIV pictures may have been too challenging because, for most individuals, associating oneself with an HIV-negative status is so common. The GNAT task could have been adjusted so that participants took an IAT test instead, in which case they would be asked to match me/not me words and approach/avoidance words first with HIV-related pictures and then with not-HIV pictures.

Another limitation to the current versions of the GNAT was the words used. The approach/avoidance words used reflected physical proximity, including concepts such as toward, near, and close for approach and leave, away, distant for avoidance. Based on the interpersonal approach presented in the intervention message, it may have been more advantageous if the current GNAT had also incorporated approach/avoidance words that were of an interpersonal, contact-related nature. For instance, one such approach word could have been "companion" or "confidante" while an appropriate avoidance word could have been "enemy" or "adversary."

Lastly, it is possible that HIV-related implicit attitudes may have been more effectively assessed if, in the GNAT tasks, participants were asked to match approach/avoidance *pictures* rather than words with the HIV-related pictures. It may have been more effective for the purpose of this study to represent the interpersonal, contact-related facet of approach/avoidance through visual photographs because portraying approach by showing friends that are embracing one another or avoidance by depicting enemies with their backs turned to one another conveys interpersonal closeness in a manner that verbal usage of a situation or construct never could. Using images as opposed to words as stimuli better captures what stigma reflects (i.e., comfort, repulsion, sanctions, blaming). In addition, these visual representations may convey the true meaning of stigma in ways that the words "approach" and "avoidance" may not. The subjective nature of how people interpret images also needs to be considered when choosing certain pictorials for the stimuli. Therefore, it is critical to choose images that represent and convey approach and avoidance in very concrete ways so as to decrease or eliminate the variability of image interpretation. Generally, research has demonstrated that pictures are more effective at conveying nonverbal cues and communication than words.

Implications

Theoretical. The most significant theoretical contribution of the current research is the common group approach to studying HIV stigma. Although CGI has been examined in previous studies of racial or ethnic prejudice, it has not been previously utilized in an HIV stigma reduction domain. The current study also sought to replicate and extend Paxton's (2002) findings that the characteristics of the speaker within an intervention can greatly influence the intervention's effectiveness. While the use of HIV-positive speakers has been shown to be influential in altering attitudes toward HIV, my study suggested that when HIV-positive speakers also shared common group memberships, they were more likely to positively influence perceivers HIV stigma.

Practical: Perceiver's perspective. The current research has many practical implications as well as useful applications in real-world settings. To begin, with HIV/AIDS rapidly escalating throughout the world, this study is a reminder and indicator of the proportionate prevalence of HIV stigma and negative attitudes associated with HIV-positive individuals. Denial goes hand in hand with stigma, as many people continue to deny that HIV exists in their communities. Today, HIV threatens the welfare and well being of people throughout the world. At the end of the year 2005, 40.3 million people were living with HIV or AIDS, and during the year, 3.1 million died from HIV-related illnesses. Combating the stigma and discrimination against people who are affected by HIV is as important as developing the medical cures in the process of preventing and controlling the global epidemic.

The knowledge that HIV stigma can be lowered via an intervention video encompassing an HIV-positive speaker who shares a common group identity with the perceiver provides societal benefits, such as in diversity training in the workplace. For instance, companies that

initiate a sexual health training course, more specifically, with regard to HIV/AIDS, would provide the employees with the necessary information about HIV; through the discussion of negative consequences associated with HIV stigma, they would feel motivated to eliminate these negative attitudes, thereby enacting behavioral intentions with a better understanding of possible co-workers infected with HIV.

Furthermore, the current intervention could be applied within the educational system. Although many of the current HIV interventions attempt to raise knowledge levels and weaken stigmatizing attitudes, these interventions solely incorporate an informational approach (Brown, Macintyre, & Trujillo, 2003). The current research has intricately integrated the key components of information, motivation and behavioral skills, as well as common group identity and HIV-status as part of a video-based HIV-stigma reduction intervention tool. If children are equipped with the knowledge and motivation to enact behavioral skills that will enable them to reduce stigma, they have the possibility of growing up in a world less inflicted overall with the damaging, stigmatizing viewpoints of HIV-positive individuals, leading to an overall more accepting, empathetic society for everyone.

Not only can this HIV-stigma reduction intervention be used in the workplace and educational system, it can also be used in the healthcare system. People employed in healthcare settings, which are often the first points of contact for people with HIV, have been found to harbor stigma against people with or suspected of having HIV (ICRW, n.d.).

Practical: HIV-positive individual's perspective. HIV-related stigma remains an enormous barrier to effectively fighting the HIV epidemic. Fear of stigma often prevents people from seeking treatment or from admitting their HIV status publicly. As mentioned, people with or suspected of having HIV may be turned away from healthcare services, employment, and

refused entry to foreign countries. In some cases, they may be shunned from their family members and rejected by their friends and colleagues. The stigma attached to HIV can extend into the next generation, placing an emotional burden on those left behind.

The implementation of an intervention video like the one used in the current research could elucidate misconceptions about the HIV infection. As a result, healthcare personnel would not prevent HIV-positive individuals from receiving the utmost attention and healthcare access that they deserve and require for an overall improved quality of life, both psychologically and physically. Along with an increased access to healthcare services, HIV-positive individuals' needs might be met in other areas of their lives when perceivers obtain a renewed understanding and commitment to furthering the HIV cause upon viewing the video. One such example includes more moral support and acceptance from family members as well as social consideration from the general community and society as a whole.

A certain amount of attitudinal change toward HIV can be achieved through the mitigation of stigma in higher institutions and the legal system. In some countries people who are living with HIV lack knowledge of their rights in society. More importantly, they need to be educated in an effective way that enables them to challenge the stigma and denial that they continually meet in society.

However, no policy or law alone can combat HIV-related stigma. The fear and prejudice that lies at the core of HIV stigma needs to be approached at the community and national levels. A more accepting environment needs to be created to increase the visibility of people with HIV as a "normal" part of any society. As shown by this study, this can be employed in part by introducing an HIV-positive speaker who shares a group identity with the audience into a video-

based intervention. In the future, the task is to confront the fear-based messages and biased social attitudes, in order to reduce the stigma of people who are living with HIV.

Limitations/Future Directions

Attitude and behavioral measures. The current research included a few limitations. For one, there was a slight mismatch between the behavioral skills taught in the video and the behavioral intentions assessed. As previously mentioned, the video content concentrated more on interpersonal communication and ways to increase comfort levels with an individual infected with HIV, but the behavioral measures used focused upon taking an advocacy approach. In future research, it is not as critical to determine whether an interpersonal or advocacy-related behavioral approach should be taken; what is crucial is ensuring that either of these approaches is consistently followed between the video's recommendations and the assessed behavioral intentions.

In addition, the implicit measures used in the current research may have displayed the same mismatch between attitude and behavioral intentions. To better represent the necessity of the parallel relay of information between attitude and behavioral measures, the GNAT could have used me/not me and approach/avoidance words in the advocacy context if the Behavioral Measures Questionnaire maintained that objective, such as HIV educator for "me/not me" words.

Demand characteristics. Some may argue that the intervention impact on HIV attitudes and group identification was merely due to demand characteristics; in other words, participants may have felt compelled to respond in a socially acceptable manner. While it is possible that this is the case, I feel it is unlikely because there was not strong evidence of demand in the behavioral measures. In other words, participants responded similarly to the behavioral measures across conditions. As such, attitudinal responses are less likely to be due to demand because they too

would have seen overly positive if they were due to demand characteristics. In short, there is no reason to think demand would influence behavioral measures and not attitudinal ones.

CGI manipulation. In the current research, common group identity was manipulated by having the speaker wear an IWU sweatshirt. While it seems this sufficiently manipulated perception of common group identity, it may have done so in a subtle manner, which could have limited how effective the perceptions of CGI were. Although the IWU emblem on the sweatshirt was not in full view to those watching the video, this did not significantly affect the participants' ability to observe this detail as confirmed in the manipulation checks. As an illustration of the multi-faceted utility of the CGI variable, Dovidio et al. (2001) manipulated common group identity in a study of race, ethnic, and cultural differences on campus by emphasizing contact situations, such as integrated versus segregated seating. Common group identity could have been manipulated a number of ways in the current research as well. For instance, CGI could have been represented by focusing on the group level (i.e., something as specific as one's sports affiliation or as broad as one's gender), group size (i.e., resident of Illinois or citizen of the United States), or position in a group (i.e., serve on executive board of campus organization or participate in organization as a member).

IWU student as HIV-positive. One might also attribute the significant results found in the current research to the overly surprising nature of an HIV-positive Wesleyan affiliated speaker. The other speaker combinations were possibly not as surprising to listeners as thinking about someone being HIV-positive from one's own school might be. Wesleyan students do not likely assume that anyone who is HIV-positive attends their school. Therefore, it is possible that the discovery that an IWU student is HIV-positive is surprising; this

startling realization could potentially lead to increased motivation to change attitudes regarding HIV.

GNAT stimuli. Another limitation to the current versions of the GNAT was the words used. The approach/avoidance words used reflected physical proximity, including concepts such as toward, near, and close for approach and leave, away, and distant for avoidance. Based on the interpersonal approach presented in the intervention message, it may have been more advantageous if the current GNAT had also incorporated approach/avoidance words that were of an interpersonal, contact-related nature. For instance, one such approach word could have been "companion" or "confidante" while an appropriate avoidance word could have been "enemy" or "adversary."

Furthermore, both GNAT tasks incorporated me/not me and approach/avoidance words as stimuli rather than pictures when matched with HIV-related pictures. However, previous studies have shown that people process visual information more quickly and efficiently than verbal information; also, pictures are generally more effective at conveying nonverbal cues and communication than words (Stokes, n.d.). From this realization, future research should use GNAT stimuli as images in the task rather than words. It is possible that HIV-related implicit attitudes may have been more effectively assessed if, in the GNAT tasks, participants were asked to match me/not me *pictures* and approach/avoidance *pictures* rather than words with the HIV-related pictures. The visual representations of me/not me and approach/avoidance stimuli paired with HIV images would be more salient and meaningful in the viewer's appraisal. For example, portraying approach as friends embracing one another as opposed to avoidance depicting enemies with their backs turned to one another conveys interpersonal closeness in a manner that verbal usage of a situation or construct never could.

Conclusion

HIV stigma continues to affect our society, both those who are the perceivers and those who are stigmatized, as the prevalence of HIV-infected individuals also rises astronomically. However, combating HIV stigma is achievable through the following three components: 1) information (educate the target audience about HIV stigma); 2) motivation (address the negative consequences associated with HIV stigma in order to motivate the audience to reduce their negative attitudes); and 3) behavioral skills (discuss ways in which the perceivers can enact upon reducing stigma in a behaviorally productive manner, such as participating in an HIV cause). I introduced a video-based intervention, while maintaining the three components previously discussed; I manipulated two variables: common group identity (IWU affiliation or not) and HIV status of the speaker (HIV-positive or HIV-negative). The responses to the HIV Attitudes Scale and Ingroup Identity Scale showed that participants' HIV stigma was reduced overall and they felt more affiliation with IWU, respectively, after viewing the HIV-positive individual from Wesleyan. Assessing the interaction between common group identity and HIV status is unique in the HIV domain. These results have been shown to be practically useful for further research at the healthcare, educational, and workplace levels as well as revising the target population, such as children or cross-cultural focus. Finally, the ultimate goal in HIV stigma reduction has far-reaching implications for the whole of society.

References

Agnew, C.R., & Loving, T.J. (1998). Future time orientation and condom use attitudes,

intentions, and behavior. *Journal of Social Behavior and Personality, 13(4)*, 755-764.

Ashworth, C.S., DuRant, R.H., Gaillard, G., & Rountree, J. (1994). An experimental evaluation

of an AIDS education intervention for WIC mothers. *AIDS Education Prevention, 6(2)*,

154-162.

Brown, L., Macintyre, K., & Trujillo, L. (2003). Interventions to reduce HIV/AIDS stigma: What

have we learned? *AIDS Education and Prevention, 15(1)*, 49-69.

Bruce, K.E., & Walker, L.J. (2001). College students' attitudes about AIDS: 1986 to 2000. *AIDS

Education and Prevention, 13(5)*, 428-437.

Carey, M.P., Morrison-Beedy, D., & Johnson, B.T. (1997). The HIV-Knowledge Questionnaire.

AIDS & Behavior, 1(1), 61-74.

Dovidio, J.F., Gaertner, S.L., & Kafati, G. (2000). Group identity and intergroup relations: The

common group identity model. In S.R. Thye, E. Lawler, M. Macy, & Walker (Eds.),

Advances in group processes, 17, 1-35. Stamford, CT: JAI.

Dovidio, J.F., Gaertner, S.L., Niemann, Y.F., & Snider, K. (2001). Racial, ethnic, and cultural

differences in responding to distinctiveness and discrimination on campus: Stigma and

common group identity. *Journal of Social Issues, 57(1)*, 167-188.

Dovidio, J.F., Validzic, A., & Gaertner, S.L. (1998). Intergroup bias: status, differentiation, and a

common in-group identity. *Journal of Personality and Social Psychology, 75(1)*, 109-

120.

Fishbein, M., & Ajzen, I. (1974). Attitudes towards objects as predictors of single and multiple

behavioral criteria. [References]. [Journal; Peer Reviewed Journal] *Psychological Review,*

81(1), 59-74.

Fisher, J.D., & Fisher, W.A. (1992). Changing AIDS risk behavior. *Psychological Bulletin, 111,*

455-474.

Fisher W.A., Fisher, J.D., & Harman, J. (2000). The information-motivation-behavioral skills

model: A general social psychological approach to understanding and promoting health

behavior (pp. 82-105).

Fredrickson, B.L., Roberts, T.A., Noll, S.M., Quinn, D.M., & Twenge, J.M. (1998). That

swimsuit becomes you: Sex differences in self-objectification, restrained eating, and math

performance [personality processes and individual differences]. *Journal of Personality*

and Social Psychology, 75(1), 269-284.

Fredriksson, J., & Kanabus, A. (2006). HIV & AIDS: Stigma and discrimination. Retrieved

August 31, 2006, from http://www.avert.org/aidsstigma.htm

Gaertner, S.L., & Dovidio, J.F. (2005). Understanding and addressing contemporary racism:

From aversive racism to the common ingroup identity model. *Journal of Social Issues,*

61(3), 615-639.

Guth, L.J., Hewitt-Gervais, C., Smith, S., & Manda, S. (2000). Student attitudes toward AIDS

and homosexuality: The effects of a speaker with HIV. *Journal of College Student*

Development, 41(5), 503-512.

International Center for Research on Women [ICRW]. (n.d.). HIV/AIDS stigma: Finding

solutions to strengthen HIV/AIDS programs Washington, D.C.: GlaxoSmithKline's

Positive Action & Elton John AIDS Foundation. Retrieved April 7, 2007, from

www.icrw.org/docs/2006_stigmasynthesis.pdf

Kawakami, K., Dovidio, J.F., Moll, J., Hermsen, S., & Russin, A. (2000). Just say no (to

stereotyping): Effects of training in the negation of stereotypic associations on stereotype

activation. *Journal of Personality and Social Psychology, 78(5)*, 871-888.

Neumann, R., Hulsenbeck, K., & Seibt, B. (2004). Attitudes towards people with AIDS

and avoidance behavior: Automatic and reflective bases of behavior. *Journal of*

Experimental Social Psychology, 40, 543-550.

Nier, J.A., Gaertner, S.L., Dovidio, J.F., Banker, B.S., Ward, C.M., & Rust, M.C. (2001).

Changing interracial evaluations and behavior: The effects of a common group identity.

Group Processes & Intergroup Relations, 4(4), 299-316.

Nosek, B.A., & Banaji, M.R. (2001). The go/no-go association task. *Social Cognition, 19(6)*,

625-664.

Paxton, S. (2002). The impact of utilizing HIV-positive speakers in AIDS education. *AIDS*

Education and Prevention, 14(4), 282-294.

Peters, E.M., Burraston, B., & Mertz, C.K. (2004). An emotion-based model of risk perception

and stigma susceptibility: Cognitive appraisals of emotion, affective reactivity,

worldviews, and risk perceptions in the generation of technological stigma. *Risk Analysis,*

24(5), 1349-1367.

Porter, N. (Ed.). (1913). Webster's revised unabridged dictionary. Plainfield, NJ: G & C.

Merriam Co.

Rudman, L.A., Ashmore, R.D., & Gary, M.L. (2001). "Unlearning" automatic biases: The

malleability of implicit prejudice and stereotypes. *Journal of Personality and Social*

Psychology, 81(5), 856-868..

Sassenberg, K., & Wieber, F. (2005). Don't ignore the other half: The impact of ingroup

identification on implicit measures of prejudice. *European Journal of Social Psychology*,

35, 621-632.

Shrum, J., Turner, N., & Bruce, K. (1989). Development of an instrument to measure attitudes

towards AIDS. *AIDS Education and Prevention, 1*, 222-230.

Stokes, S. (n.d.). Visual literacy in teaching and learning:

A literature perspective. *Electronic Journal for the Integration of Technology in*

Education, 1, 10-19. Retrieved April 8, 2007, from

http://ejite.isu.edu/Volume1No1/pdfs/stokes.pdf

Torabi, M.R., Crowe, J.W., Rhine, S., Daniels, D.E., & Jeng, I. (2000). Evaluation of HIV/AIDS

education in Russia using a video approach. *Journal of School Health, 70(6)*, 229-233.

Turner, J.C., Hogg, M.A., Oakes, P.J., Reicher, S.D., & Wetherell, M.S. (1987). *Rediscovering*

the social group: A self-categorization theory. Oxford, England: Basil Blackwell.

Table 1

Approach- and Avoidance Related Words from the GNAT

Approach	Avoidance
Approach	Avoid
Toward	Leave
Near	Away
Close	Distant
Contact	Outcast

Table 2

HIV-related pictures from the GNAT

HIV Infections

HIV POSITIVE

YOU ME & HIV
With knowledge, we have hope!

Fran Balkwell and Mic Rolph

EDUCATE, MOTIVATE, & MOBILIZE AGAINST..

HIV

Discovery

Awareness
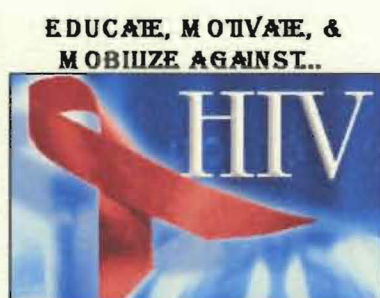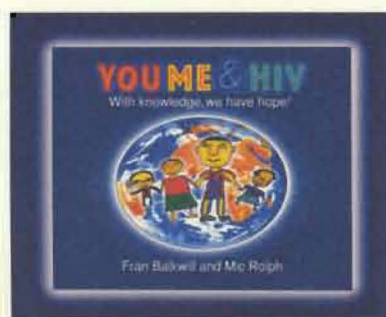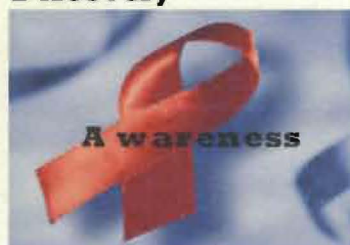
Progress

Table 3

Not HIV-related pictures from the GNAT

Stop Heart Disease!

Breast Cancer Awareness

AMERICAN OBESITY ASSOCIATION
www.obesity.org

Prevent

Lung Cancer

WALK TO CURE DIABETES
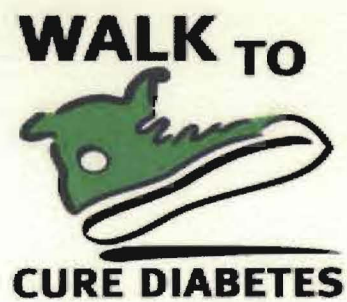
Figure Captions

Figure 1. Emotion-based model of stigma susceptibility

Figure 2. Intervention impact on overall explicit HIV stigma.

Figure 3. Intervention impact on level of sanctions toward HIV-positive individuals.

Figure 4. Intervention impact on level of comfort toward HIV-positive individuals.

Figure 5. Intervention impact on level of repulsion toward HIV-positive individuals.

Figure 6. Intervention impact on level of blaming toward HIV-positive individuals.

Figure 7. Intervention impact on IWU affiliation (common group identity).

HIV Attitudes

HIV Attitudes

HIV Attitudes

Figure showing a bar chart with Comfort Subscale (1-5) on the y-axis (ranging from 3 to 5) and Message Content on the x-axis (CGI and no-CGI). Legend: HIV - (blue) and HIV + (red).

HIV Attitudes

HIV Attitudes

Group Identification
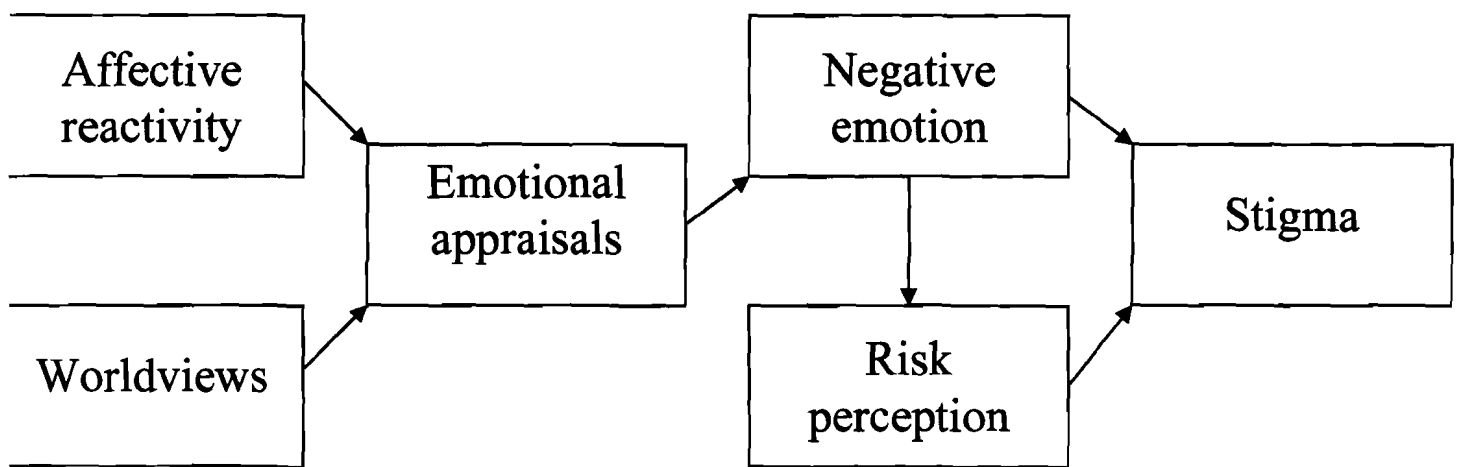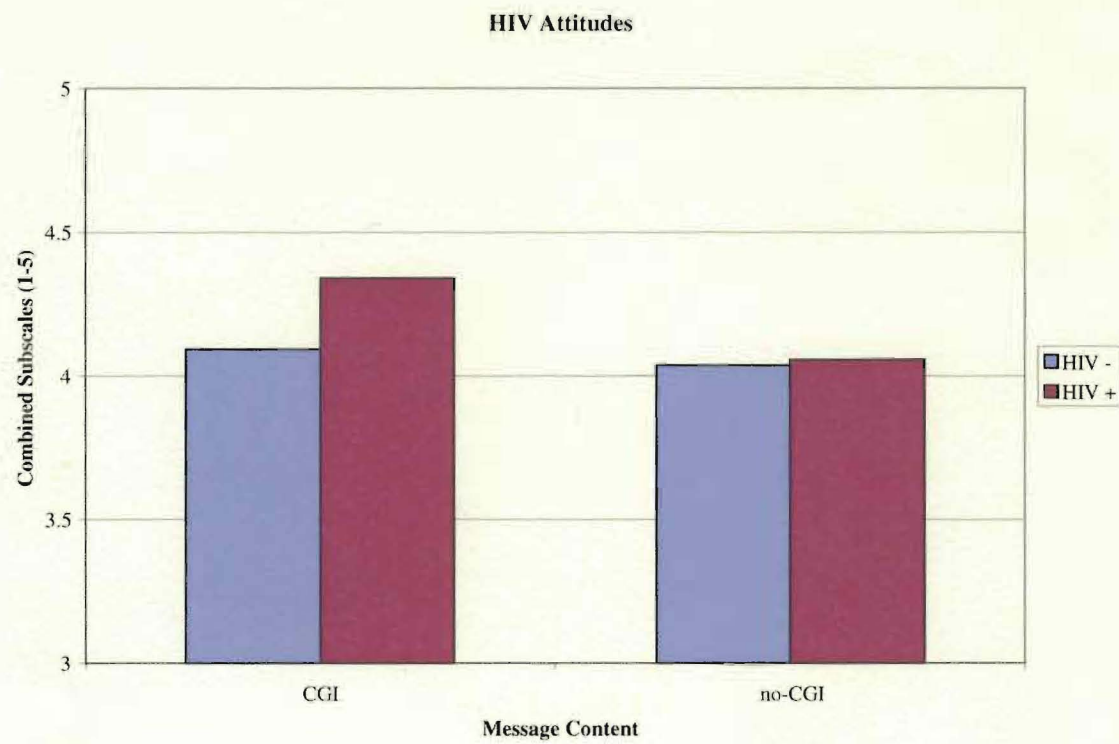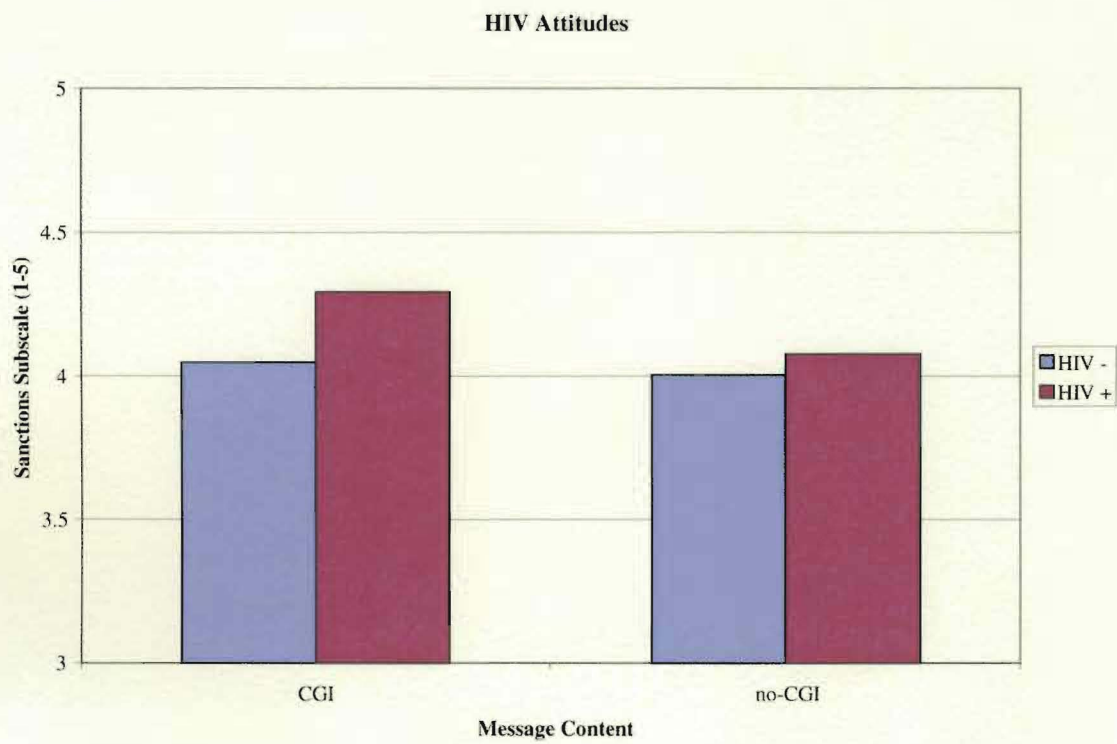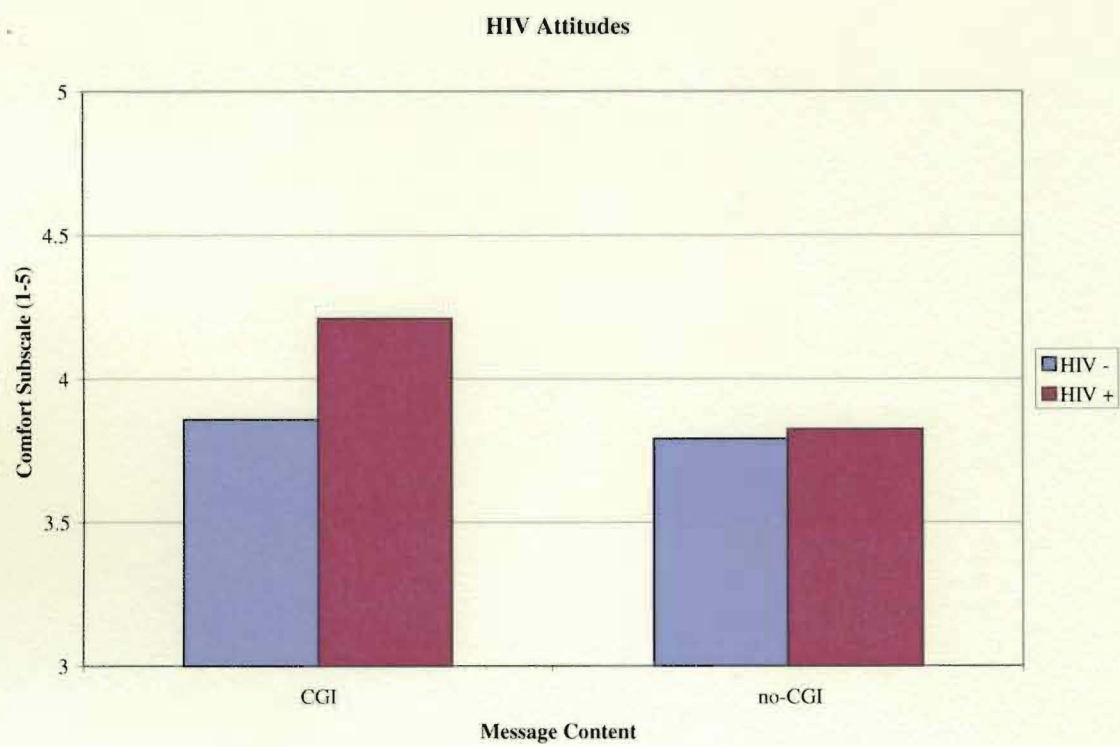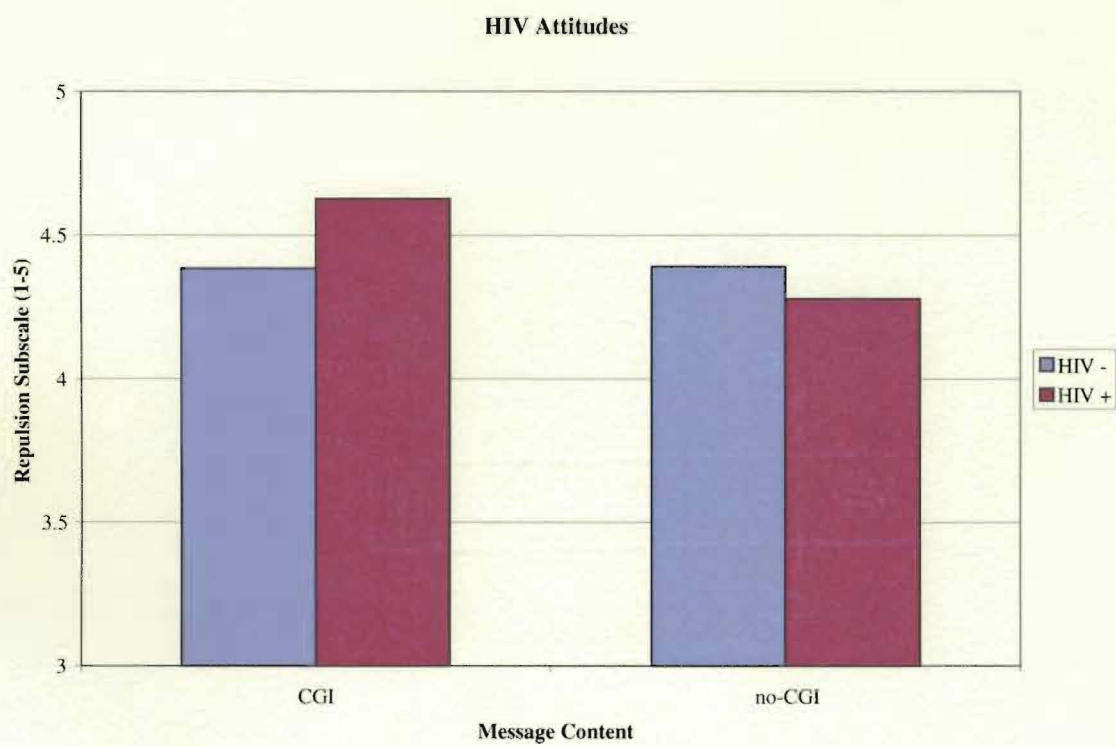
Appendix A

Intervention Script

"Hi! My name is Ashley. Today I want to give you some information about a disease that is becoming more common in the US: HIV. Though many people know a decent amount about HIV, I hope you will find some of the information and suggestions I have to share informative and interesting. Because I have been HIV+ for 3 years, I am in a unique position to talk to you about HIV (OR: Though I am HIV-, I am in a unique position to talk to you about HIV). There are many misconceptions when it comes to HIV. Unveiling some of these misconceptions about the infection as well as discussing the causes and consequences of HIV-related stigma can help motivate individuals to reduce stigma associated with HIV. If one is motivated to change negative attitudes toward HIV positive people, this could lead to less discrimination against those living with the infection.

First, I will outline a brief history of HIV. As of 1981, homosexual men in New York and California expressed a rare form of cancer, first referred to as the "gay cancer". About a year later, the Centers for Disease Control connected the illness to blood and coined the term AIDS (Acquired Immune Deficiency Syndrome). A few years later, Dr. Gallo claimed to have discovered the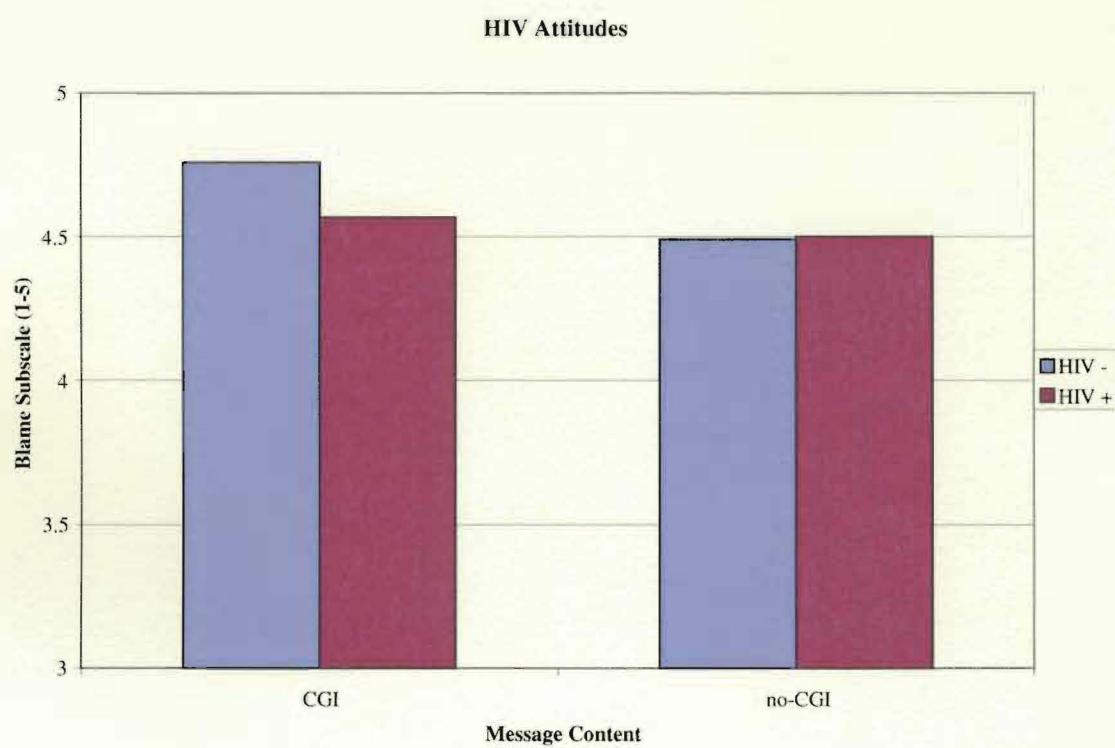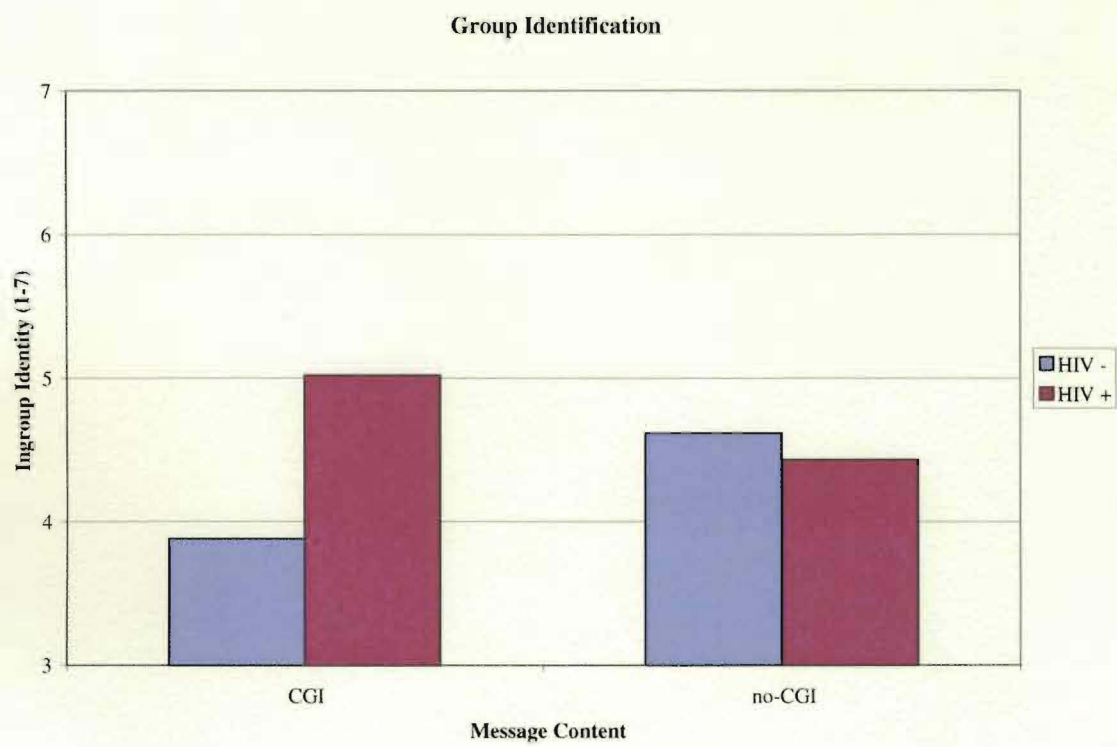 virus (human immunodeficiency virus) that causes AIDS. Could anyone have foreseen that the mysterious illness seemingly affecting only a few gay men in 1981 would become the epidemic of the 20th century?

HIV is, in fact, more widespread now than it was 25 years ago. I'd like to provide you with startling yet true statistics on the prevalence of HIV. The number of HIV positive individuals has risen from around 8 million in 1990 to nearly 40 million today, and is still growing. Young people, ages 15-24 years old, account for half of all new HIV infections worldwide with around 6,000 becoming infected every day. In fact, as of 2003, Illinois is ranked 9th in the US in terms of the number of deaths due to HIV.

So, how can HIV be transmitted? One way is via unprotected sexual intercourse with an infected person. More specifically, unprotected vaginal and anal sexual intercourse without using a condom is risky because the infected person's body fluids can pass directly into the body of the uninfected individual. HIV transmission can also occur during oral sex if a condom is not worn, for instance if bleeding gums or an open cut is present in the mouth.

Mother-to-child transmission of HIV is possible during pregnancy, delivery, and breastfeeding. In addition, the use of HIV-contaminated blood transfusions and blood products in hospitals poses a risk for HIV transmission. Receiving skin grafts or organ transplants from someone who is infected increases the risk of contracting HIV as well. Injection drug users are also susceptible to the infection. Sharing needles and syringes efficiently transmits blood-borne viruses such as HIV.

Despite common misconceptions, it is not possible to become infected with HIV through sharing dishes; touching, hugging or shaking hands; eating food prepared by someone with HIV; insect or animal bites; or toilet seats.

Now, I would like to tell you a bit about HIV prevention. These days, media campaigns and education in schools are some of the methods that can be used to inform the target audience about HIV and with awareness comes more prevention knowledge.

Furthermore, safer sexual practices can help prevent the transmission of HIV. Safer sex involves using a condom during sexual intercourse. When used properly, condoms serve as physical barriers that can prevent the infected fluid from traveling into the body of another individual.

Also, injection drug users can avoid becoming infected with HIV by using clean needles. To facilitate this goal, needle exchange programs exist. These programs specifically distribute clean needles as well as safely dispose of the used ones.

Another essential part of a prevention program is HIV counseling and testing. People living with HIV are less likely to transmit the virus to others if they know they are infected and if they have received counseling about safer behavior. Those who discover they are uninfected can also benefit from receiving counseling about how to remain that way.

Lastly, a key factor in prevention is providing antiretroviral treatment (ART). The term Highly Active Antiretroviral Therapy (HAART) is used to describe a combination of three or more anti-HIV drugs. Although there is still no way to cure HIV, this treatment enables people living with HIV to enjoy longer, healthier lives.

Despite this potential for an increased quality of life, people continue to stigmatize and treat HIV positive individuals badly. What exactly does it mean to stigmatize someone?

Well, stigma is a powerful tool of social control that can be expressed in a number of ways, including:
(1) Imposing sanctions against those that are HIV+. In other words, people may not socially accept HIV+ individuals. For example, they might believe that anyone who transmits HIV to another should face criminal charges;
(2) Expressing a lack of comfort, defined here as a psychological uneasiness around HIV positive individuals. For example, a roommate may move out of the apartment after realizing another roommate has HIV;
(3) Blaming, or finding fault with HIV+ individuals. For example, people may say that those who are HIV+ got what they deserved;
(4) Repulsion, defined as a feeling of disgust or very strong dislike. This could be evidenced by frowning or rolling one's eyes at an HIV positive person, and
(5) A lack of behavioral support, or decreased likelihood of helping and encouraging someone infected with HIV.
As an illustration, stigma might be experienced through gossiping, condemnation, and might result in physical or social exclusion or isolation.

Now, we know what stigma is, but why exactly do people stigmatize in the first place? There are a number of reasons. First, a lack of specific, in-depth information about HIV can lead to stigmatizing attitudes toward HIV+ individuals.

Stigma may also stem from fear. Those who stigmatize may be afraid of contracting HIV. This sense of fear may be amplified by fear-based public messages, such as emphasizing images of sick and dying HIV+ people in the media, which only reinforces the stigma. HIV can highlight individuals' fears about death and disease, and compel them to stigmatize by passing moral judgment on people who they consider to have acted immorally in the first place.

Furthermore, some people stigmatize HIV positive individuals based on negative, pre-existing thoughts. Since HIV has been associated historically with drug users, homosexuals, and sex workers and these groups are commonly stigmatized, HIV+ individuals who are not members of these groups can still face stigmatization and social exclusion. Therefore, HIV stigma is increased due to the stigma already attached to these groups.

Unfortunately, the HIV epidemic thrives on the stigma and discrimination related to people living with the virus. When HIV+ individuals are stigmatized, they can be denied access to the services and treatment they need. In addition, HIV+ individuals can also face a lack of family support and social acceptance, decreased employment opportunities, reduced health care access, and insufficient legal rights and protection. Protecting and promoting human rights is an essential part of any comprehensive HIV prevention strategy.

These consequences are unfortunate because people living with HIV undoubtedly need love and support. Possible HIV stigma can also deter people who do not know their status from going for an HIV test and people living with HIV from accessing vital treatment. Receiving antiretroviral treatment can suppress HIV and delay its progression to AIDS. Without this treatment, there is a high chance that the infected individual will die sooner than when on treatment.

If stigma were reduced, HIV positive individuals would have the opportunity to flourish within society. As noted earlier, anti-retroviral drugs are allowing HIV+ individuals to lead productive and happy lives, thereby reducing the negative physical consequences. Wouldn't it be nice if there was no more HIV-related stigma, thereby reducing their negative psychological consequences?

The consequences of HIV stigma don't just affect HIV+ individuals. Stigma can also affect perceivers in ways that motivate them to reduce the stigma. On a personal level, perceivers may feel accountable for their negative attitudes.

As an illustration, let's say your peer is living with HIV and hears you speaking in a degrading context about HIV positive individuals. Such a ridiculing remark might be, "Only disgusting people get HIV." How would this ultimately affect your friendship if the HIV positive friend felt unable to disclose anything to you for fear of being judged? Would you allow these negative feelings about HIV to override a supportive, empathetic relationship? Beyond the obvious hurt you would cause your friend to endure, the judgment you cast upon your HIV positive friend may inhibit him/her from seeking treatment for fear of being found out, and your friend could ultimately die as a result.

It's important to note that instead of treating HIV as something that is only experienced by

others, you can assume responsibility for your role in these experiences. If you can treat HIV as any other condition, like diabetes or high blood pressure, you can similarly think of HIV being transmitted irrespective of one's education, age, gender, race, sexual orientation, or social status. Associations between HIV and particular minority groups such as sex workers, drug users, and homosexual men are often made, but members of these groups are not the only ones who contract the disease. HIV does not discriminate or live only within certain types of people. Any individual, you for that matter, could make one bad decision (such as possibly having unprotected sex) and end up in the same devastating situation—HIV positive.

The attitudes and actions you employ toward other people will inevitably contribute to the experiences, either positive or negative, of people living with HIV. If you would expect to be treated or viewed in a positive way that should inform the way you treat and view those around you. Establishing an environment free of HIV stigma facilitates mutual respect. This mutual cooperation benefits both parties. For instance, individuals who do not know their status would be more inclined to get tested for the infection and therefore disclose their positive status without the fear of being stigmatized. The knowledge of one's HIV status in turn protects the sexual partners of the HIV positive person from contracting the infection.

So, after all I have told you, let's say you want to reduce stigma? How can you go about doing this? There are particular behaviors you can enact which will be particularly useful if you are motivated to reduce HIV stigma.

Since negative attitudes about HIV+ individuals may reflect a lack of HIV knowledge, one thing that can be instrumental in stigma reduction is increased contact with HIV positive individuals. Contact can lead to the discovery of shared interests and create a common ground between you and an HIV+ individual. Repeated contact facilitates more optimistic evaluations of the person infected with HIV.

Another way to reduce the expression of stigma toward HIV positive individuals is to avoid interacting with them in a group setting. Group interactions tend to influence and amplify preexisting attitudes and behaviors. Therefore, maintaining one-on-one personal contact with the HIV positive individual will enable a more conducive atmosphere for reaching a common group interest. You will be able to establish an accepting, communal environment by demonstrating casual contact without fear of either the infection or the person living with HIV.

Inviting the isolated member into a group of common interests helps establish a "team" environment and leads to the ultimate goal of reducing HIV stigma. As Andrew Masondo stated, you can "Understand the differences; act on the commonalities."

In addition, try to realize that communication is based on more than just what you say. Often, it is the nonverbal communication you are least aware of that speaks the most loudly. Nonverbal communication can be expressed through eye contact, facial expressions, gestures, posture, and personal space. Displaying negative facial expressions, such as frowning, physically distancing oneself from the HIV positive individual, or even using certain discriminatory language including "HIV victim" and "HIV sufferer" may only perpetuate the existing stigma by portraying attitudes of disgust, fear, or apathy toward the infected person. These negative

feelings are then mirrored in HIV positive individuals. In other words, by expressing negative nonverbal behaviors toward them, you may elicit negative responses from them, thereby confirming your expectations. But, in actuality, HIV+ individuals may be very nice people if you try to get to know them.

If you can, focus on positive nonverbal forms of communication such as nodding in response to a comment, smiling (reflecting a genuine interest in their statements), and making eye-contact as an intent listener. All of these seemingly subtle yet noteworthy gestures will significantly impact the rapport between you and the HIV positive individual, leading to a trusting, understanding atmosphere.

In summary, I hope this discussion has provided you with the appropriate knowledge and awareness of HIV to exhibit a more accepting attitude of those affected with HIV. HIV+ individuals ("like myself") are living, productive human beings in society like anyone else and deserve to be treated as such. Furthermore, you too can commit to the HIV cause in even the smallest of ways. Join an HIV campaign in your community or simply wear a red ribbon in acknowledgement of the millions of HIV-infected individuals ("like myself") around the world! Thank you!!"

Appendix B

Demographics: Session 1

Please answer the following demographics items.

What is your age (in years)? _____

What is your race (circle one)? Caucasian, Black/African American, Asian, Native American, Latino/Hispanic, Pacific Islander, Other (please specify)

What is your gender? _____

Are you a (circle one): Freshman Sophomore Junior Senior

What is your major? _____

How many HIV-positive individuals do you know? _____

Appendix C

HIV-Knowledge Questionnaire: Session 1

For each statement, please circle true (T) or false (F).

	True	*False*
1. HIV and AIDS are the same thing.	T	F
2. There is a cure for AIDS.	T	F
3. A person can get HIV from a toilet seat.	T	F
4. Coughing and sneezing DO NOT spread HIV.	T	F
5. HIV can be spread by mosquitoes.	T	F
6. AIDS is the cause of HIV.	T	F
7. A person can get HIV sharing a glass of water with someone who has HIV.	T	F
8. HIV is killed by bleach.	T	F
9. It is possible to get HIV when a person gets a tattoo.	T	F
10. A pregnant woman with HIV can give the virus to her unborn baby.	T	F
11. Pulling out the penis before a man climaxes or cums keeps a woman from getting HIV during sex.	T	F
12. A woman can get HIV if she has anal sex with a man.	T	F
13. Showering, or washing one's genitals or private parts, after sex keeps a person from getting HIV.	T	F
14. Eating healthy foods can keep a person from getting HIV.	T	F
15. All pregnant women infected with HIV will have babies born with AIDS.	T	F
16. Using a latex condom or rubber can lower a person's chance of getting HIV.	T	F
17. A person with HIV can look and feel healthy.	T	F
18. People who have been infected with HIV quickly show serious signs of being infected.	T	F
19. A person can be infected with HIV for 5 years or more without getting AIDS.	T	F
20. There is a vaccine that can stop adults from getting HIV.	T	F
21. Some drugs have been made for the treatment of AIDS.	T	F
22. Women are always tested for HIV during their Pap smears.	T	F
23. A person cannot get HIV by having oral sex, mouth-to-penis, with a man who has HIV.	T	F
24. A person can get HIV even if she or he has sex with another person only one time.	T	F
25. Using a lambskin condom or rubber is the best protection against HIV.	T	F
26. People are likely to get HIV by deep kissing, putting their tongue in their partner's mouth, if their partner has HIV.	T	F
27. A person can get HIV by giving blood.	T	F

28. A woman cannot get HIV if she has sex during her period.   T   F

29. You can usually tell if someone has HIV by looking at them.   T   F

30. There is a female condom that can help decrease a woman's   T   F
chance of getting HIV.

31. A natural skin condom works better against HIV than does   T   F
a latex condom.

32. A person will NOT get HIV if she or he is taking antibiotics.   T   F

33. Having sex with more than one partner can increase a person's   T   F
chance of being infected with HIV.

34. Taking a test for HIV one week after having sex will tell a   T   F
person if she or he has HIV.

35. A person can get HIV by sitting in a hot tub or a swimming   T   F
pool with a person who has HIV.

36. A person can get HIV through contact with saliva, tears,   T   F
sweat, or urine.

37. A person can get HIV from the wetness from a woman's   T   F
vagina.

38. A person can get HIV if having oral sex, mouth on vagina,   T   F
with a woman.

39. If a person tests positive for HIV, then the test site will have   T   F
to tell all of his or her partners.

40. Using Vaseline or baby oil with condoms lowers the chance   T   F
of getting HIV.

41. Washing drug use equipment with cold water kills HIV.   T   F

42. A woman can get HIV if she has vaginal sex with a man   T   F
who has HIV.

43. Athletes who share needles when using steroids can get HIV   T   F
from the needles.

44. Douching after sex will keep a woman from getting HIV.   T   F

45. Taking vitamins keeps a person from getting HIV.   T   F

Appendix D

Twenty Statements Test: Session 1

Please complete the following sentences using different words or phrases that you believe to be descriptive of you. When describing yourself, think about what automatically comes to mind. We are interested in your immediate responses.

1. I am _____.
2. I am _____.
3. I am _____.
4. I am _____.
5. I am _____.
6. I am _____.
7. I am _____.
8. I am _____.
9. I am _____.
10. I am _____.
11. I am _____.
12. I am _____.
13. I am _____.
14. I am _____.
15. I am _____.
16. I am _____.
17. I am _____.
18. I am _____.
19. I am _____.
20. I am _____.

Appendix E

Intervention Perceptions: Session 2

Please answer the following questions about the video you just viewed using the scale provided.

1	2	3	4	5	6	7
Not at all true			Moderately true			Extremely true

1. This video is effective overall.
2. The images in this video are vivid.
3. This video prompts me to take action.
4. This video would prompt most college students to take action.
5. This video is motivating.
6. This video prompts me to change my attitudes.
7. This video would prompt most college students to change their attitudes.
8. This video motivates me to change my behavior.
9. This video would motivate most college students to change their behavior.
10. The topic addressed in this video is important.
11. This video addresses a timely issue.
12. The statements made in this video are believable.
13. This video is clear.
14. This video addresses a critical topic.
15. I believe the topic addressed in this video is essential to consider.
16. This video is persuasive.
17. This video causes me to reconsider my previous behavior.
18. This video is unique.
19. This video pointed out something that other videos do not.
20. This video has a stronger influence than other videos.

Appendix F

HIV Attitude Scale: Session 2

For each of the following statements, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Use the following scale:

SA: Strongly agree with the statement
A: Agree with the statement
N: Neither agree nor disagree with the statement
D: Disagree with the statement
SD: Strongly disagree with the statement

1. Limiting the spread of HIV is more important than trying to protect the rights of people with HIV.
2. Support groups for people with HIV infection would be very helpful to them.
3. I would consider marrying someone with HIV infection.
4. I would quit my job before I would work with someone who has HIV.
5. People should not be afraid of catching HIV from casual contact, like hugging or shaking hands.
6. I would like to feel at ease around people with HIV.
7. People who receive positive results from the HIV blood test should not be allowed to get married.
8. I would prefer not to be around homosexuals for fear of catching HIV.
9. Being around someone with HIV would not put my health in danger.
10. Only disgusting people get HIV infection.
11. I think that people with HIV infection got what they deserved.
12. People with HIV should not avoid being around other people.
13. People should avoid going to the dentist because they might catch HIV from dental instruments.
14. The thought of being around someone with HIV infection got what they deserved.
15. People with HIV infection should not be prohibited from working in public places.
16. I would not want to be in the same room with someone who I knew had HIV.
17. The "gay plague" is an appropriate way to describe HIV.
18. People who give HIV to others should face criminal charges.
19. People should not be afraid to donate blood because of HIV.
20. A list of people who have HIV infection should be available to anyone.
21. I would date a person with HIV.
22. People should not blame the homosexual community for the spread of HIV infection in the United States.
23. No one deserves to have a disease like HIV infection.
24. It would not bother me to attend class with someone who has HIV.
25. An employer should have the right to fire an employee with HIV infection regardless of the type of work s/he does.
26. I would allow my children to play with the children of someone known to have HIV.

27. People get HIV by performing unnatural sex acts.
28. People with HIV should not be looked down upon by others.

29. I could tell by looking at someone if s/he had HIV.

30. It is embarrassing to have so many people with HIV infection in our society.

31. Health care workers should not refuse to care for people with HIV infection regardless of their personal feelings about the disease.

32. Children who have HIV should not be prohibited from going to schools or day care centers.

33. Children who have HIV probably have a homosexual parent.

34. HIV blood test results should be confidential to avoid discrimination against people with positive results.

35. HIV infection is a punishment for immoral behavior.

36. I would not be afraid to take care of a family member with HIV.

37. If I discovered that my roommate had HIV, I would move out.

38. I would contribute money to an HIV infection research project if I were making a charitable contribution.

39. The best way to get rid of HIV infection is to get rid of homosexuality.

40. Churches should take a strong stand against drug abuse and homosexuality to prevent the spread of HIV.

41. Insurance companies should not be allowed to cancel insurance policies for HIV-related reasons.

42. Money being spent on HIV infection research should be spent instead on diseases that affect innocent people.

43. A person who gives HIV to someone else should be legally liable for any medical expenses.

44. The spread of HIV in the United States is proof that homosexual behavior should be illegal.

45. A list of people who have HIV infection should be kept by the government.

46. I could comfortably discuss HIV with others.

47. People with HIV are not worth getting to know.

48. I have no sympathy for homosexuals who get HIV infection.

49. Parents who transmit HIV to their children should be prosecuted as child abusers.

50. People with HIV should be sent to sanitariums to protect others from HIV.

51. People would not be so afraid of HIV if they knew more about the disease.

52. Hospitals and nursing homes should not refuse to admit patients with HIV infection.

53. I would not avoid a friend if s/he had HIV.

54. The spread of HIV in our society illustrates how immoral the United States has become.

Appendix G

Ingroup Identification Scale: Session 2

Most individuals are members of many groups. The following set of questions will ask you how you feel about your Illinois Wesleyan student group membership. Please use the scale provided to answer each question. If a button is not labeled, you can still select it.

1	2	3	4	5	6	7
Not at all			Moderately			Extremely
true of me			true of me			true of me

1. I feel very similar to other Illinois Wesleyan students.
2. When I think about Illinois Wesleyan students as a group, I feel I belong.
3. I identify with Illinois Wesleyan students.
4. I feel strong ties to Illinois Wesleyan students.
5. Being a part of Illinois Wesleyan students is important to me.
6. When I think about Illinois Wesleyan students as a group, I feel I fit in.
7. I like Illinois Wesleyan students.
8. Illinois Wesleyan is a part of my identity.

Appendix H

Behavioral Measures Questionnaire: Session 2

The following set of questions will ask you how likely you would be to participate in HIV-awareness activities. When a scale is provided, please click on the button indicating your answer. If a button is not labeled, you can still select it. For questions in which a scale response is not indicated, please type only a numerical response in the blank provided.

1	2	3	4	5	6	7
Not at all likely			Moderately likely			Extremely likely

1. How likely would you be to sign a petition supporting the fight against HIV?

2. How likely would you be to encourage community members to sign a petition supporting the fight against HIV?

3. How many community members would you be willing to approach regarding signing a petition supporting the fight against HIV?

4. If your community had an HIV-related "Walk for the Cause," how likely would you be to advertise for the walk by sending postcards to community members?

5. How many postcards about the HIV-related "Walk for the Cause" would you be willing to address?

6. How much time, in hours, would you be willing to devote to the preparation of postcards for the HIV-related "Walk for the Cause?" (Please type the number of hours in the blank provided.)

7. How many friends or family members would you be willing to ask to help address postcards for the HIV-related "Walk for the Cause?"

8. How likely would you be to actively participate in the HIV-related "Walk for the Cause" by collecting donations?

9. Please indicate what your fundraising goal, in dollars, for the walk would be. (Please type the dollar amount in the blank provided.)

10. Please indicate how much money you personally would be willing to donate. (Please type the dollar amount in the blank provided.)

11. How likely would you be to join an organization whose goal was to better promote HIV-awareness?

12. How much time would you be willing to devote to an HIV-awareness organization monthly? (Please type the number of hours in the blank provided.)

13. How many friends or family members would you be willing to encourage joining an HIV-awareness organization?

14. How likely would you be to teach children and/or adolescents in schools about HIV education and prevention?

15. How much total time would you be willing to devote to teaching children and/or adolescents about HIV education and prevention? (Please type the number of hours in the blank provided.)

16. How likely would you be to consider sponsoring an HIV-positive child from a developing country?

17. How much money would you be willing to donate toward sponsoring an HIV-positive child from a developing country? (Please type the dollar amount in the blank provided.)

18. How many friends or family members would you be willing to encourage sponsoring an HIV-positive child from a developing country?

19. How likely would you be to wear a red ribbon to promote HIV-awareness?

20. How many friends or family members would you be willing to encourage wearing a red ribbon to promote HIV-awareness?

Appendix I

Manipulation Checks

1. In the video you saw today, was the speaker wearing an Illinois Wesleyan shirt?
   _____ Yes _____ No

2. In the video you saw today, did the speaker say s/he was HIV-positive?
   _____ Yes _____ No