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Breaching confidentiality with HIV-positive clients: the effects of client gender, client dangerousness, clinician HIV-related knowledge and stigmatization

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Breaching confidentiality with HIV-positive clients: The effects of client gender, client dangerousness, clinician HIV-related knowledge and stigmatization

by

Brenda Charece Crawford

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

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ABSTRACT

This study focused on the utilization of *Tarasoff* principles with HIV-positive clients when the threat of infection to a third party exists. There are often no clear ethical guidelines to follow when faced with this dilemma, and many clinicians are unaware of what state laws would permit or require them to do. Many variables are important to consider in this complicated area of clinical work, such as the client's level of dangerousness, the client's gender, the clinician's knowledge about HIV transmission risks and endorsement of stigmatizing beliefs. Even with their education and experience, psychologists are not impervious to stigmatization toward HIV-positive persons, which could influence ethical decision-making. Psychologists were presented a vignette describing the sexual behaviors of one hypothetical HIV-positive client. The 6 vignettes were varied by client gender (male, female) and client dangerousness (high, medium, low). Level of client dangerousness was the most significant predictor of likelihood of breaching confidentiality, certainty about decision, and perceptions of client danger. Client gender was not a strong predictor in this model. Stigmatization was not associated with likelihood of breaching confidentiality, but clinicians with high knowledge were significantly more likely to breach than those with low knowledge. Additionally, prior and/or current clinical contact with HIV-positive clients was not associated with likelihood of breaching confidentiality. Overall, the psychologists were knowledgeable about HIV transmission risks and did not endorse stigmatizing beliefs. Implications for future research are also discussed.

CHAPTER 1. INTRODUCTION AND LITERATURE REVIEW

One of the most frightening diseases affecting the world today is AIDS (Acquired Immune Deficiency Syndrome), a progressive deterioration of the immune system, which severely compromises an individual's capacities to ward off infections. AIDS is a transmissible, severely debilitating, and eventually fatal disease, and its mysterious incubation period may last between 6 months to more than 5 years (Morrison, 1989). According to the Centers for Disease Control and Prevention (CDC), approximately 42 million people worldwide are living with HIV (human immunodeficiency virus, the virus that causes AIDS), or full-blown AIDS (CDC, <http://www.cdc.gov>, 2003). Almost 900,000 persons are estimated to be infected with HIV in the United States alone (Hayes & Erkis, 2000). Most cases occur in persons aged 25-44, and most are either White (343,889) or Black (313,180) (CDC, <http://www.cdc.gov>, 2003). Moreover, 816,149 people in the United States are currently living with full-blown AIDS—men and women comprise 666,026 and 141,048 cases, respectively (CDC, <http://www.cdc.gov>, 2003).

In the past, AIDS has differentially impacted gay men and intravenous drug users (IDUs), who comprised a large number of the known cases of HIV/AIDS (Morrison, 1989). In 1989, gay men and IDUs constituted approximately 70% and 17%, respectively, of all persons infected with HIV. Moreover, the AIDS virus was referred to as “gay-related immune deficiency” as a result of the early linkage between the syndrome and the male homosexual population (McGuire, Nieri, Abbott, Sheridan, & Fisher, 1995).

Currently, in the United States, approximately one-third of all AIDS cases are associated with injection drug use (CDC, <http://www.cdc.gov>, 2001). Recent statistics show that men who have sex with men (MSM) comprise 368,971 cases of AIDS in the United

States, intravenous drug users comprise 201,326 cases (145,750 males and 55,576 females), and heterosexuals comprise 90,131 cases (32,735 males and 57,396 females) (CDC, <http://www.cdc.gov>, 2003). As noted, women who contracted the virus via heterosexual sex currently outnumber those who contracted the virus due to intravenous drug use.

Women are becoming increasingly affected by HIV/AIDS at a much faster rate than was expected. In fact, of persons living with HIV/AIDS, the greatest proportional increases are among women, heterosexuals, and minorities (Palma & Iannelli, 2002). To date, much of the focus in the medical field and in research has been placed on the impact of HIV/AIDS on men (especially MSM and male IDUs). Current prevalence and incidence statistics of HIV/AIDS among women obtained by the CDC should encourage these fields to place more time, research, and resources aimed at assisting women in the prevention and treatment of the disease. Approximately 50% (or 19.2 million) of the 38.6 million adults living with HIV/AIDS are women (CDC, <http://www.cdc.gov>, 2003). Of the 5 million people who contracted HIV in 2002, 2 million were women, and of the 3.1 million people who died of AIDS in 2002, 1.2 million were women (CDC, <http://www.cdc.gov>, 2003). These statistics provide striking evidence that the “face” of HIV/AIDS is changing, and thus, the focus of research and medicine must change as well.

HIV, AIDS, and Counselor Dilemmas

As the number of HIV-positive individuals steadily increases, the probability that counselors and therapists will see these individuals in therapy also increases. Many new, highly active antiretroviral therapies have been developed recently to deal with the physical symptoms of HIV/AIDS, but they do very little to impact the psychological correlates of the

disease (Palma & Iannelli, 2002). Nearly half of a nationally representative probability sample of 2,864 adults receiving care for HIV in the United States in 1996 screened positive for psychiatric disorders, including major depression, dysthymia, generalized anxiety disorder, and panic attacks (Bing, Burnam, Longshore, Fleishman, Sherbourne, London, Turner, Eggen, Beckman, Vitiello, Morton, Orlando, Bozzette, Ortiz-Barron, & Shapiro, 2001). Further, Burnam, Bing, Morton, Sherbourne, Fleishman, London, Vitiello, Stein, Bozzette, and Shapiro (2001) conducted a study involving 231,400 HIV-positive patients from the HIV Cost and Services Utilization study, and of these patients, 61.4% used mental health or substance abuse services. It is likely that persons with HIV will often seek out counseling due to overwhelming feelings of anxiety, denial, anger, rage, depression, guilt, shame, isolation, and thoughts of suicide (Trezza, 1994; McGuire et al., 1995; Hayes & Erkis, 2000). Thus, it is important for counselors to be prepared to help the HIV-positive client deal with the emotions associated with HIV and AIDS, as well as the psychiatric disorders that may accompany the disease.

It is important to recognize that therapists treating people with HIV may have to face certain ethical dilemmas that don't exist in therapy with other populations. One of the most ambiguous dilemmas involves the duty to warn and protect third parties of the risk of transmission of HIV. The case of *Tarasoff Vs. The University of California* set a precedent for therapists regarding this duty to warn and protect third parties that are at risk of harm by their clients (*Tarasoff v. the Regents of the University of California*, 1976). The *Tarasoff* decisions were made by the California Supreme Court and state that when a therapist determines, or should have determined, that a patient presents a serious danger to a third party, the therapist bears a duty to exercise reasonable care to protect the foreseeable victim

of that danger (Bersoff, 1995). It has been argued by some clinicians and researchers that the preservation of human life is more important than the preservation of confidentiality in these cases (Daniolos & Holmes, 1995; Eth, 1988; Zonana, 1989). According to this controversial precedent, therapists have a duty to warn and protect third parties from danger, but do these duties necessarily apply to counseling with HIV-positive patients?

The duty to warn and protect third parties in the realm of psychotherapy with HIV-positive individuals is certainly not clear, and there is no consensus that practitioners can rely on when making decisions in these cases (Kermani & Weiss, 1989). The application of *Tarasoff* principles to HIV cases is quite variable, and often depends on statutory and case law, which vary by state and jurisdiction (Chenneville, 2000).

Practitioners hold varying views on this ethical dilemma. Some practitioners argue in favor of applying *Tarasoff* principles to psychotherapy with HIV-positive individuals, while others argue against it (Daniolos & Holmes, 1995; Dyer, 1988; Eth, 1988; Kermani & Weiss, 1989; Knapp & VandeCreek, 1992; Perry, 1989; Searight & Pound, 1994; Stanard & Hazler, 1995; Zonana, 1989). For example, many researchers have argued that the *Tarasoff* precedent does not apply to HIV-positive clients who put others at risk because the threat is usually passive, not active (Daniolos & Holmes, 1995; Kermani & Weiss, 1989; Knapp & VandeCreek, 1992; Perry, 1989). Most HIV-positive individuals are not intentionally putting others at risk of infection, and do not provide an active, direct verbal threat toward third parties. If this happened to be the case, most mental health practitioners would agree that *Tarasoff* would indeed apply, and the third party should be warned of this danger. However, this is rarely the case. Yet, research suggests that many HIV-positive clients continue to engage in unsafe sexual practices (Kalichman, Kelly, & Rompa, 1997). Zonana (1989)

argued that an HIV-positive person who is not willing to control his or her risky behavior poses the same threat as a client with a gun, and should be treated as such; therefore, the *Tarasoff* precedent should apply. Thus, this particular issue remains unsolved.

Another salient and important ethical issue of importance and ambiguity when counseling HIV-positive individuals is the importance of respecting client confidentiality. Chenneville (2000) argues that without the assurance of confidentiality, clients may be hesitant to seek out treatment because of the fear of being stigmatized. However, Morrison (1989) states that maintaining confidentiality of a client's personal information is often at odds with the mental health professional's duty to warn in cases with HIV-positive individuals who put others at risk of infection. Zonana (1989) and Eth (1988) state that confidentiality is never absolute, and there are instances in therapy when that confidentiality should be broken. According to these researchers (Eth, 1988; Zonana, 1989), the preservation of human life should always take precedence over client confidentiality, and when a client is posing a threat to a third party, either action should be taken to persuade the client to warn those in danger or the professional should be required to do so. Perry (1989) argues that this practice could be detrimental to the therapy relationship by breaking an already fragile trust, and the client may be less likely to discuss risky behavior in the future as a result. However, according to Daniolos and Holmes (1995) and Zonana (1989), there is no evidence to support the argument that breaching confidentiality has stopped HIV-positive clients from seeking out mental health treatment.

The Therapist's Duty to Warn and Protect

There are many issues that a counselor should take into consideration when deciding whether breaching confidentiality is necessary. Some of the most salient dimensions that should be assessed by the therapist in this decision-making process are the perceived dangerousness of the client, the identifiability of the potential victim, the issue of passive versus active threat, and the total costs and benefits for both the client and the victim (Knapp & VandeCreek, 1992). The most reasonable and ethically least controversial approach for therapists in situations for which an HIV-positive client is posing a risk to a third party is to persuade the client to inform this person (or persons) voluntarily (Knapp & VandeCreek, 1992). When disclosure of a client's HIV status may be necessary because the client refuses to do so on his or her own, it is important for the therapist to address his or her own issues regarding possible biases, beliefs, and attitudes about persons with HIV.

Stigmatization and AIDS

The diagnosis of being "HIV-positive" often carries with it demeaning connotations and that are usually connected to intravenous drug use and homosexuals because these groups represent a large subset of the HIV-positive population (Sheridan & Sheridan, 1988). According to Webster's dictionary, a stigma is defined as a "mark of shame or discredit", and to stigmatize means, "to describe or identify in opprobrious or contemptuous terms." Leiker, Taub, and Gast (1995) state that past research has shown that persons who are infected with HIV are viewed much more negatively when compared to persons with other terminal illnesses. Additionally, there is a general societal fear of HIV and AIDS, which is driven by ignorance about the disease, suggestions of excessive caution to protect oneself from the

disease, and recommendations for drastic changes in behavior and public policy (Bruhn, 1989). Moreover, there is a bias and fear toward the disease itself, and there are stigmas associated with those persons who are infected with HIV.

In general, stigmatized individuals may not be accepted by others, and therefore often are ignored or forced from social interaction (Leiker et al., 1995). Persons with AIDS and HIV are faced with isolation and discrimination that are associated with a deviant and stigmatized status (Leiker et al., 1995). According to Hall (1992), the most common stigma attached to HIV and AIDS is the notion that this disease is a “plague,” and HIV/AIDS has communicated to society fears about “polluting people.” HIV-positive individuals have been evicted from their homes, fired from jobs, and banned from attending public schools (Leiker et al., 1995) as a result of this stigma. The uncertainty that revolves around the disease, and the fact that infected persons may not show any signs of the disease for up to ten years after infection (and in the meantime infect others) has also fueled this public fear of HIV and AIDS. This societal fear also evokes a counselor’s beliefs, biases, and fears about not only this disease, but also about death, alternate lifestyles, and sexual behaviors (Bruhn, 1989).

Research suggests that a large percentage (but probably not a majority) of clinicians have negative attitudes toward and feel uncomfortable working with people with HIV and AIDS (Hayes & Erkis, 2000). A study by McGuire et al. (1995) explored whether the therapist’s degree of homophobia would influence the probability of breaching confidentiality in situations of threat of infection by HIV-positive clients to a third party. McGuire et al. (1995) state that the early linkage of AIDS to the homosexual male population, and the homophobia that occurred as a result, has influenced the beliefs of the population regarding HIV and AIDS, and the stigmatization and discrimination that persons

with HIV are subjected to is one consequence of this connection. To determine whether therapists' degree of homophobia influenced their willingness to breach confidentiality, participants in the McGuire et al. (1995) study were presented with vignettes in which client type was manipulated. The vignettes presented either a male homosexual, a male hemophiliac, or a female prostitute. After reading each vignette, participants were asked to indicate the likelihood that they would breach confidentiality. An attitude questionnaire about lesbians and gay men was also used to measure degree of homophobia in the participant. McGuire et al. (1995) concluded that stronger homophobic beliefs were related to an increased probability of the likelihood of breaching confidentiality in therapy with HIV-positive homosexual clients. In a related study by Leiker et al. (1995), as homophobia in college students increased, stigmatization toward persons with AIDS increased.

The Impact of Client Dangerousness and HIV-Related Knowledge on Counselor Decision-Making

Judging the actual dangerousness of any client can be an arduous task. Attempting to do so with an HIV-positive client who may be putting others at risk may be even more difficult. Determining the relative danger of HIV infection is often complicated by many factors, including the type of sexual contact involved and the use/nonuse of strategies that would reduce one's risk (Palma & Iannelli, 2002). First, not all types of sexual activity carry the same risk. Searight and Pound (1994) state that HIV has a long incubation period, and the infectiousness of different persons and different behaviors can vary greatly. The risk of HIV transmission for sexual intercourse with a condom is 1 in 5,000, whereas the risk of HIV transmission for sexual intercourse without a condom is 1 in 500 (Searight & Pound, 1994),

meaning that not all risky behavior will result in infection. In addition, likelihood of transmission from an HIV-positive male is more likely than transmission from an HIV-positive female during sexual intercourse, as a result of larger amounts of infected body fluid that are involved (Bersoff, 1995). Further, the receptive male or female partner in unprotected anal sex is at greater risk for infection than the receptive female involved in vaginal intercourse, and receptive oral sex is of lesser risk than either receptive vaginal or anal sex (Palma & Iannelli, 2002). In addition, the presence of other sexually transmitted diseases (such as herpes) increases the risk of contracting HIV and transmitting it (Chenneville, 2000). Thus, the unpredictability of the course of the disease, as well as the variability of infectiousness from client to client due to the above factors, makes danger prediction remarkably difficult (Stanard & Hazler, 1995).

Any assessment of risk or dangerousness with an HIV-positive client would require that the clinician have substantial knowledge of HIV/AIDS, as well as the behaviors (both sexual and drug-related) that the client is engaging in and the frequency of such activities. Implicit in this knowledge is the requirement that the clinician has evidence that the client's HIV status is indeed accurate (Palma & Iannelli, 2002). Information obtained regarding the client's sexual behaviors and HIV status will often be based on the self-report of the client, which could lead to further complications in the assessment of danger. These reports would most definitely be affected by the client's willingness to be accurate and self-disclosing about their sexual and drug practices. Moreover, in many cases, clinicians may not know whether the information they are receiving from clients is accurate or credible, which often leads many mental health practitioners to advocate for the maintenance of confidentiality in situations involving "dangerous" HIV-positive clients (Palma & Iannelli, 2002).

In addition, it has been argued that the assessment and prediction of actual client dangerousness by mental health professionals is not reliable, especially when one considers that many of the issues involved with a dangerous HIV-positive client are medical in nature (Chenneville, 2000). Many psychologist researchers and practitioners have agreed with this argument (Knapp & VandeCreek, 1992; Stanard & Hazler, 1995; Totten, Lamb, & Reeder, 1990).

According to Chenneville (2000), underprediction will lead to potential harm to third parties, whereas overprediction will lead to breaches of confidentiality that may not be warranted. Stanard & Hazler (1995) have also suggested that the diagnostic methods used in these cases are unreliable, and often, practitioners are exceeding the boundaries of their clinical competence. Making an assessment of dangerousness on the basis of an AIDS diagnosis may be beyond the competence of a nonphysician therapist who, in many cases, is relatively unknowledgeable about HIV/AIDS and the medical information associated with the diagnosis (Totten, et al., 1990). However, Knapp and VandeCreek (1992) state, “although psychotherapists may have an imperfect ability to predict infectiousness of certain behaviors, they are required to use whatever knowledge exists to make a reasonable prediction”. This argument seems to suggest that clinicians faced with cases of dangerous HIV-positive clients should exercise their right to consult with appropriate colleagues (including physicians) in order to increase the reliability and accuracy of their predictions of actual client dangerousness.

Although determining the dangerousness of an HIV-positive client can be quite difficult, researchers have investigated the impact of client dangerousness on clinician decision-making with HIV-positive clients (McGuire et al., 1995; Totten, et al., 1990). For

example, McGuire et al. (1995) found that psychologists were more willing to breach confidentiality in scenarios that depicted a highly dangerous HIV-positive client (not using safe sex practices or drug practices) as compared to an HIV-positive client of low dangerousness (not HIV-positive and using safe sex practices or drug practices). Relatedly, Totten et al. (1990) investigated the role of client dangerousness on psychologists' willingness to breach confidentiality and found that for all four types of clients in their study (prostitute, homosexual, IDU, and bisexual), clients depicted as being highly dangerous evoked more willingness from psychologists to breach confidentiality as compared to clients that were depicted as being of low dangerousness. Degree of client dangerousness had a greater impact on breaching confidentiality in the prostitute and homosexual conditions as compared to the IDU and bisexual conditions (Totten et al., 1990).

The results of these studies suggest that psychologists are more willing to breach confidentiality with clients who are participating in more high-risk behavior (unprotected multiple sex partners or multiple needle partners) than those who are not participating in such behavior. This is a logical finding, as more persons could be at risk of infection by the highly dangerous HIV-positive client. If the client is depicted as being less dangerous, however, this risk may not be perceived by the psychologist as an imminent health hazard and thus, may not warrant a breach of confidentiality (especially if the client is described as not being HIV-positive).

Very few studies have been conducted on the impact of clinician HIV-related knowledge (including knowledge of state law) on willingness to breach confidentiality with dangerous HIV-positive clients who may be putting others at risk of infection. Kelly, St. Lawrence, Hood, and Brasfield (1989) created an HIV risk behavior knowledge scale in

response to the lack of appropriate measures that had been created to objectively measure practical knowledge about AIDS risk behavior for purposes of determining the effectiveness of AIDS prevention programs. This scale was initially created to evaluate the impact of applied or experimental AIDS prevention programs for groups that tend to have potential risks for the disease or higher general infection rates. A more complete description of the measure and how it was created is presented in the “Materials and Instruments” section (pg. 35).

Simone and Fulero (2001) utilized this measure in their study investigating psychologists’ perceptions of their duty to protect uninfected sexual partners of HIV-positive clients. Their sample included mental health practitioners provided by the Ohio Psychological Association. They presented clinicians with a vignette depicting either an HIV or hepatitis B-infected client who had become infected either by homosexual intercourse, heterosexual intercourse, IV drug use, or blood transfusion. Clinicians were then presented with questionnaires, which included a breach of confidentiality scale, AIDS risk knowledge scale (adapted from Kelly, et al., 1989), legal/ethical knowledge scale, perceptions of client dangerousness, and a prejudicial evaluation scale to determine level of stigmatizing beliefs assigned to the client presented in the vignette. Simone and Fulero (2001) did not find that AIDS risk knowledge, in and of itself, was related to decisions to breach confidentiality. However, they did find that as the level of AIDS-related risk behavior knowledge increased, the level of stigma assigned to HIV-positive clients decreased, and further, as stigma decreased, so did likelihood of breaching confidentiality (Simone & Fulero, 2001). They concluded that education about AIDS is the “linchpin” for helping mental health clinicians to deal appropriately with dangerous HIV-positive clients (Simone & Fulero, 2001).

In addition, Simone and Fulero (2001) found that most of the respondents to their study had only a moderate level of legal/ethical knowledge relevant to HIV-related issues and the duty to protect. Specifically, more than half of respondents (69.2%) did not know that Ohio statutes require HIV-infected persons to either abstain from sexual contact or to disclose their HIV serostatus to sexual and needle-sharing partners (Simone & Fulero, 2001). They found that lower scores on the legal/ethical knowledge scale in their study resulted in increased likelihood of breaching confidentiality. The conclusion was made that it is imperative for psychologists to know the current law regarding duty to protect in their practicing state (Simone & Fulero, 2001).

The Impact of Gender On Decision-Making

To date, very few studies have investigated the impact of client gender on breaching confidentiality with HIV-positive clients. More specifically, decision-making behavior of clinicians when presented with a scenario depicting an HIV-positive female client who is posing an infection risk to third parties is remains largely uninvestigated. Most studies researching ethical decision-making with HIV/AIDS have focused on male clients who were homosexual, bisexual, or IDUs.

Many studies that do employ scenarios depicting both female and male HIV-positive clients generally use “female prostitute” as the only female client condition (McGuire, et al., 1995, Totten, et al., 1990). Therefore, the comparisons made between client types in these studies are in most cases extreme, biased, and confounded by issues of promiscuity and drug use associated with prostitution. Female prostitutes are often concurrently plagued with drug addictions and may engage in other dangerous behavior that would not be found (or at least

may not be associated) with male homosexuals, bisexuals, or even IDUs. Further, although they employed both male and female scenarios (male homosexual, male hemophiliac, female prostitute), McGuire, et al. (1995) did not make comparisons between client types to determine any possible impact of gender. Totten, et al. (1990) used female prostitute, male homosexual, male bisexual, and male IDU in their study, and reported that degree of client dangerousness had a greater impact on breaching confidentiality in the prostitute and homosexual conditions as compared to the IDU or bisexual scenarios. However, they also chose not to investigate and/or report specific differences in breaching confidentiality based on the client's gender alone (Totten, et al., 1990).

Two current studies investigated the impact of client gender on perceptions of HIV-positive clients (Borchert & Rickabaugh, 1995; Palma & Iannelli, 2002). Borchert & Rickabaugh (1995) manipulated scenarios based on how the client contracted HIV (heterosexual sex or intravenous drug use) and employed both male and female clients. They employed a sample of college undergraduate students as participants. Regardless of the mode of HIV transmission, females were held less accountable for their illness than their male counterparts. Further, compared to the HIV-positive female clients in the scenarios, HIV-positive male clients were rated as exerting more control over their infection, regardless of how they contracted the disease. Even more interesting was the finding that female clients that contracted HIV via drug use were not more stigmatized than females who acquired the disease from heterosexual sex, which the authors attribute to the relative lack of media attention given to women who have HIV/AIDS (Borchert & Rickabaugh, 1995).

Palma & Iannelli (2002) varied client scenarios in their study of therapeutic reactivity to confidentiality with HIV-positive clients using client gender and client sexual orientation.

Participants were psychology trainees in their final year of academic training. Therapeutic reactivity was measured by determining the change in willingness to breach confidentiality (assessed by Likert-type scale) between “safe” client scenarios and “unsafe” client scenarios. Trainees showed the highest level of therapeutic reactivity toward heterosexual male clients, and least therapeutic reactivity toward heterosexual female clients. These findings imply that the change in willingness to breach confidentiality was largest between the safe versus unsafe heterosexual male scenarios and smallest between the safe versus unsafe heterosexual female scenarios (Palma & Iannelli, 2002). The authors suggest that these findings seem congruent with current epidemiological estimates of risk, as dangerous HIV-positive males are more likely to transmit HIV than dangerous HIV-positive females (Palma & Iannelli, 2002).

Although the presence of these studies in the literature helps to delineate factors to be considered when working with HIV-positive clients, further research is needed to determine the impact of client gender on clinician decision-making with this population. In addition, the results of these studies as applied to psychologists are limited as the participants in these studies were either psychologists-in-training- or undergraduate college students, not psychology practitioners.

As stated previously, the prevalence of HIV/AIDS in women is on the rise, and in 2002, significantly more women were infected via heterosexual sex than intravenous drug use (CDC, <http://www.cdc.gov>, 2003). According to the CDC, since 1985, the proportion of all AIDS cases reported among adult and adolescent women has more than tripled, and HIV/AIDS is the 5th leading cause of death for U.S. women aged 25-44. HIV/AIDS was the third leading cause of death in 1999 among African American women in this same age group (CDC, <http://www.cdc.gov>, 2003). Given these statistics, more research is needed to

determine what impact gender may have on clinicians when working with HIV/AIDS-infected individuals.

The Purpose of This Study

Few studies have been conducted to determine the impact of client gender on willingness to breach confidentiality with a dangerous HIV-positive client when the threat of infection to a third party exists. Much more research has been conducted to investigate the impact of the level of client dangerousness, and this research has shown that this variable is indeed important to clinicians' decision-making. The author's prior thesis research (Crawford & Scott, 2002) indicated that client dangerousness was regarded as the most important variable when clinicians were deciding whether to breach confidentiality with an HIV-positive client. Client dangerousness is often treated in research as a dichotomous variable (a client is depicted as very dangerous or not dangerous at all), when clinician perceptions of client danger are obviously more accurately described on a continuum.

However, to what degree would the gender of the client affect the importance and salience of the client's level of dangerousness? Would clinicians be more or less likely to breach when the client is an HIV-positive woman as opposed to an HIV-positive man? Thus, the purpose of this study is to supplement the literature in this area by investigating the impact of these two variables—level of client dangerousness and client gender—separately and in combination on breaching confidentiality with HIV-positive clients.

Furthermore, prior research has shown that levels of clinician stigmatization towards HIV/AIDS and HIV-related clinician knowledge impacts clinical decision-making when

dealing with a dangerous HIV-positive client. Thus, this study also investigated the roles of these variables on willingness to breach confidentiality.

In addition, clinicians' perceptions of client dangerousness, the extent to which these perceptions influence decisions to breach confidentiality, the likelihood of breaching, to whom they will breach, levels of certainty in the decision, knowledge of one's state laws regarding breaches of confidentiality, and perceptions of their legal, ethical, and moral duties in these situations were also assessed.

At the time this research was proposed, hypotheses were advanced based on a focus on a single dimension of likelihood of breaching confidentiality and consisted of the following:

- 1) Counselors will be more willing to breach confidentiality after reading vignettes that depict HIV-positive clients in the "high dangerousness" condition as compared to vignettes that depict an HIV-positive client of medium or low dangerousness. Counselors will be more willing to breach confidentiality with clients of medium dangerousness as compared to clients of low dangerousness. This finding is expected based on the findings of McGuire et al. (1995) and Totten, et al. (1990). In both of these studies, clinicians were more willing to breach confidentiality in scenarios that depicted highly dangerous clients as compared to clients of low dangerousness.
- 2) Counselors will be more willing to breach confidentiality with male clients as compared to female clients. This finding is predicted based on the research of Palma and Iannelli (2002), who concluded from their study that psychology

trainees showed the greatest therapeutic reactivity toward heterosexual males and the least therapeutic reactivity toward heterosexual females. This reactivity was measured by looking at the change in willingness to breach confidentiality between “safe” and “unsafe” client scenarios for each client type.

- 3) Clinicians with higher levels of stigmatization will be more willing to breach confidentiality with clients across conditions as compared to clinicians with lower levels of stigmatization.
- 4) Clinicians with higher levels of HIV-related knowledge (transmission risks in particular) will be less likely to breach confidentiality as compared to clinicians with lower levels of HIV-related knowledge. This hypothesis is in part based on research by Simone and Fulero (2001), who found that increased knowledge led to decreased stigmatization and lower likelihood of breaching confidentiality.
- 5) Clinicians with past experience of contact with HIV-positive clients will be less likely to breach confidentiality than those who have not had contact. This finding is based on the author’s prior research (Crawford & Scott, 2002), which found that degree of contact significantly impacted willingness to breach confidentiality with HIV-positive clients.

Variables

The two independent variables for this study will include manipulated variables of client degree of dangerousness (high/medium/low) and gender of the client (male, female).

There will be one main dependent variable of interest in this study: likelihood of breaching confidentiality. Other dependent variables that will be assessed include: (1) degree of certainty about decision regarding breaching confidentiality, (2) the clinician's perceptions of client dangerousness, (3) the extent to which danger perceptions influence decisions to breach, (4) proposed therapy practices utilized in response to client presented in vignette, (5) proposed actions taken in response to client presented in vignette, (6) clinician ratings of similarity between the vignette presented and their current practice experiences, and (7) clinician's perceptions that their decision to the presented vignette is correct. Correlates will include (1) state laws, perceived ethical obligations and moral obligations, and (2) past breaching practices within the realms of client suicidality, homicidality, and child abuse, neglect, or dependent adult abuse. These variables, as well as the questions that were used to assess them on the study questionnaire, are presented in Table 1, Study design.

Table 1. Study design

<u>Description/Questions</u>	
<u>Independent Variables</u>	
Client Gender	
Male	Male client
Female	Female client
Degree of Client Dangerousness	
Low	Always uses condoms
Medium	Uses condoms roughly half the time
High	Never uses condoms
<u>Dependent Variables</u>	
Likelihood of Breach	What is the likelihood you would breach confidentiality and warn the involved third parties of the risk of HIV transmission? (2) What are the odds out of 100 that you would breach confidentiality and warn the involved third parties of the risk of HIV transmission? (3) How probable is it that you would breach confidentiality to third parties in this case? (4)

Table 1. (cont.)

	Description/Questions
<u>Dependent Variables (cont.)</u>	
Degree of Certainty	How certain are you that there is a duty to protect a third party(s) in this case after four sessions? (5) How sure are you that there is a duty to protect a third party(s) in this case? (6)
Perceptions of Danger	How would you rate the level of the client's dangerousness in this vignette? (13) To what extent does this client's level of dangerousness have an impact on your willingness or unwillingness to breach confidentiality? (14)
Perceived Correctness	What are the odds out of 100 that you have made the correct decision in this case? (7)
Therapy Practices	How likely would you be to continue therapy with this client? (8) How likely would you be to talk to this client about informing their partner(s) about their HIV status? (9) How long would you continue trying to influence this client to inform partner(s)? (10) How likely would you be to influence this client to bring his/her partner(s) into therapy to inform him/her of the client's HIV status? (11) How relevant is this issue with regard to therapy with this particular client? (12)
Actions Taken	What was most important to you when deciding whether to breach confidentiality? (15) What steps would you consider if placed in this type of situation? (16) What actions would you take in this situation? (17)
Similarity to Practice	Please indicate how similar the preceding case is to situations you've encountered in practice. (1)
<u>Correlates</u>	
Law, Ethics, and Morality	In what state do you practice? (18) Would your state's laws permit, preclude, or require a breach of confidentiality? (19) Would you feel a moral obligation to breach confidentiality in this case? (20) Would you feel an ethical obligation to breach confidentiality in this case? (21)
Past Breaching Practices	Have you ever breached confidentiality in cases of apparent child abuse, neglect or dependent adult abuse? (22) Have you ever breached confidentiality in situations involving a suicidal client? (23) Have you ever breached confidentiality in situations involving a homicidal client? (24)

Note: The numbers presented after each question reflect the order in which they were presented to participants on the questionnaire.

Case Vignettes (Independent Variable Manipulations)

Independent variable manipulation will be achieved by creating vignettes that depict varying levels of client dangerousness and gender of the client. The client's degree of dangerousness will be varied such that clients in the "high dangerousness" condition will be HIV-positive and never use condoms, clients in the "medium dangerousness" condition will be HIV-positive and use condoms roughly half the time, and clients in the "low dangerousness" condition will be HIV-positive and always use condoms. All clients will be engaging in "frequent sexual behavior". Identifiability of the victim will be held constant in the vignettes as the "victim" will be a partner "known to the therapist", and thus easily identifiable. Gender of the client will be varied such that clients will be male in half of the vignettes and female in half of the vignettes. There will be a total of six vignettes. Vignettes will be assigned randomly with each participant receiving one of the six vignettes. Participants will also be asked to respond to questions about breaching confidentiality based on the vignette they received. The vignettes are presented in Appendix A.

CHAPTER 2: METHOD

Participants

The 231 study participants were psychologists who responded to the survey questionnaire sent to 720 psychologists randomly sampled by the American Psychological Association (APA) Office for Research from a list of all APA members in response to the investigator's sampling plan. Specifically, they were randomly selected from all APA members listed as licensed, actively practicing, Ph.D.-level clinical, counseling, and/or health psychologists in the United States who defined their primary activities as health and mental health services. In response to two questionnaire mailings to the list of 720 APA selected members, two hundred thirty-one participants ($n = 231$) returned completed questionnaires. Thus, this study achieved a 32% response rate.

The sample size for this investigation was determined by power analyses conducted to establish the number of participants needed to detect a medium effect size and a power of .90, with 95% probability. These power analyses showed that sample sizes ranging from $N=240$ to $N=360$ participants would lead to power estimates ranging from .93 to 1.00. For purposes of attaining the sample size needed for this study, the APA Office for Research randomly selected three times the number of potential participants ($n = 720$) as defined by the power analysis for a power estimate of .93 ($n = 240$). Data collection for this study was carried out by mailing questionnaires to potential participants. In a similar manner, use of the United States postal system in the author's thesis research yielded a 34% response rate (Crawford & Scott, 2002).

For the total sample ($n = 720$), of those to whom questionnaires were sent, demographic information such as age, gender, ethnicity, education, and employment

characteristics were provided by the APA Office for Research. The potential participants, those who were sent questionnaires, were 49.6% male (n = 357), 50.1% female (n = 361), and 0.3% unspecified (n=2); 82.9% were Caucasian (n = 597); and most were between the ages of 40-64 (n = 576, 80.0%). This sample was chosen from the APA's national membership listing, delineated into nine regions (see Table 2). The largest proportions sampled were from the Middle Atlantic (n = 151, 21.0%), South Atlantic (n = 108, 15.0%), and East North Central (n = 99, 13.8%) regions. All of the prospective participants as chosen by the APA had received a doctorate (Ph.D., n = 594, 82.5%; Psy.D., n = 95, 13.2%; Ed.D., n = 31, 4.3%) and most had been practicing for at least 5 years (n = 681, 94.7%). Most psychologists in the sample (n = 709, 98.5%) described their current major field as either clinical or counseling psychology.

Although the response rate goal of 50% was not achieved, those who did respond (N = 231) reflected an ample number of participants with sample proportionate representation from each geographical region (see Table 2). Roughly equal numbers of participants were obtained for each of the six vignettes (see Table 3). The sample provided by the APA was overwhelmingly Caucasian, however, so generalizability to other ethnic groups is limited.

Psychologists were randomly assigned to one of the six vignette types, and the individual received a questionnaire describing one vignette. Half of the 231 respondents were male (n = 117, 50.6%) and half were female (n = 114, 49.4%). Compared to both the total sample and to all currently practicing APA members (APA membership demographic information obtained from the APA website: www.apa.org, APA, 2002), the obtained sample was determined to be representative in terms of gender. Most participants had received a Ph.D. (n = 192, 83.1%). The mean for number of years of active practice was 20.03 years

(SD = 8.75 years). Sixty-five percent (65%) of participants reported practicing in a private or group practice (n = 150).

Table 2. Questionnaire returns by geographic region

Region	Sent	Percent Sent	Received	Percent Received
Pacific	130	18%	40	17%
CA	104		28	
WA	14		7	
HI	6		2	
OR	4		1	
AK	2		2	
Mountain	41	6%	22	10%
CO	14		6	
AZ	10		5	
NM	5		4	
MT	4		3	
NV	4		2	
UT	3		1	
WY	1		1	
ID	0		0	
East South Central	28	4%	6	3%
TN	10		2	
AL	7		2	
KY	6		1	
MS	5		1	
West South Central	43	6%	19	8%
TX	34		14	
AR	5		2	
OK	3		3	
LA	1		0	
West North Central	47	6%	14	6%
MN	15		1	
MO	13		4	
KS	9		3	
NE	4		3	
IA	3		2	
SD	2		1	
ND	1		0	

Note: Total Sent: n = 720; Total Received: n = 231. "Percent Sent" was calculated by dividing the number of questionnaires sent to each region by the total number sent (n = 720). "Percent received" was calculated by dividing the number of questionnaires received from each region by the total number received (n = 231).

Table 2. (continued)

Region	Sent	Percent Sent	Received	Percent Received
East North Central	99	14%	32	14%
MI	27		11	
IL	23		5	
OH	22		6	
WI	17		7	
IN	10		3	
New England	73	10%	21	9%
MA	41		14	
CT	14		4	
NH	8		0	
VT	4		2	
ME	4		1	
RI	2		0	
Middle Atlantic	151	21%	40	17%
NY	87		25	
PA	36		9	
NJ	28		6	
South Atlantic	108	15%	36	16%
FL	38		14	
NC	21		5	
MD	19		3	
GA	12		6	
VA	11		4	
SC	3		1	
DC	2		2	
WV	2		1	
DE	0		0	
Totals^a	720		230	

Note: Totals for each region are printed in bold.

^a Total for received questionnaires is not equal to actual number received (n = 231) due to lack of information from one participant.

Table 3. Number of participants obtained for each vignette

Vignette description	Number received	Percent of Total
1. Male, high dangerousness	34	14.7
2. Female, high dangerousness	41	17.7
3. Male, medium dangerousness	35	15.2
4. Female, medium dangerousness	46	19.9
5. Male, low dangerousness	38	16.5
6. Female, low dangerousness	37	16.0

Note: n = 231. All vignette types were sent to 120 participants.

Materials and Instruments

The 51-item questionnaire (see Appendix B) consisted of a client vignette, followed by a question regarding whether the clinician perceived there was enough information presented in the vignette to make a decision about breaching confidentiality (yes or no), and items divided into different areas reflecting the dependent variables and correlates displayed in Table 1: (1) likelihood of breaching confidentiality with that particular client (items 2-4), (2) degree of certainty in the decision (items 5-7), and (3) assessment of the client's level of dangerousness (item 13) and its impact on ethical decision-making (item 14). In addition, the questionnaire assessed: (4) proposed therapy practices and actions taken in making a decision (items 8-12), (5) current practice state and knowledge of state law regarding breaching confidentiality with HIV-positive clients (items 15-19), (6) perceptions of moral or ethical obligation to breach confidentiality based on information presented in the vignette (items 20, 21), (7) past breaching practices in cases of apparent client suicidality, homicidality, or child/elder abuse or neglect (items 22-24) and (8) similarity of the vignette to situations encountered in actual practice (item 1).

Further, the questionnaire included two short inventories—the Attitudes About AIDS scale (AAA, see Appendix C), which was presented in Likert-style format and assessed the clinicians' endorsement of stigmatizing beliefs about persons with AIDS, and the AIDS Knowledge scale (AKS, see Appendix D), which was presented in true/false format and assessed the clinicians' knowledge about AIDS and transmission risks. Clinicians were also asked to respond to a demographic inventory, which included questions about degree of experience with HIV-positive individuals, as well as past practices regarding breaching confidentiality with this population (see Appendix E). Participants were told that all information gathered would be anonymous and confidential.

Dependent Variable and Correlate Questions. Several dependent variables were assessed for purposes of this study. Likelihood of breaching confidentiality was assessed by asking participants three questions to which they would rate the likelihood that they would breach confidentiality after reading the presented vignette, using 6-point Likert-type scales (please refer to Appendix B). These questions included: (1) their likelihood of breaching confidentiality (item 2, 1 = Very Unlikely, 6 = Very Likely), the odds out of 100 that they would breach confidentiality (item 3, 1 = 0-10, 6 = 91-100), and the probability that they would breach confidentiality (item 4, 1 = Not at all Probable, 6 = Very Probable).

Participants were also asked to indicate the degree of certainty they have in their decision by responding to three questions using 6-point Likert-type scales (please refer to Appendix B). These questions included: (1) their certainty that there is a duty to protect (item 5, 1 = Definitely do not have a duty to warn; 6 = Definitely have a duty to warn), (2) how sure they are that there is a duty to protect (item 6, 1 = Not at all sure, 0-10%, 6 = Very sure,

91-100%), and (3) the odds out of 100 that they have made the correct decision (item 7, 1 = 0-10, 6 = 91-100).

Participants also answered five questions that explored their anticipated or probable therapy practices if they were the presented client's therapist (please refer to Appendix B). These questions were also presented in 6-point Likert-type format, and included (1) likelihood of continuing therapy with the client (item 8, 1 = Very Unlikely, 6 = Very Likely), (2) likelihood of encouraging client to notify partner(s) of HIV status (item 9, 1 = Very Unlikely, 6 = Very Likely), (3) length of time utilized to influence client to inform partner(s) (item 10, 1 = 0 sessions, 6 = 5 or more sessions), likelihood of influencing the client to bring in his/her partner(s) to be informed of client's HIV status (item 11, 1 = Very Unlikely, 6 = Very Likely), and (4) assessment of issue relevance with regard to therapy with the client (item 12, 1 = Not at all relevant, 6 = Very relevant).

Clinician assessments of client dangerousness were determined by ratings on two questions presented in 6-point Likert-type format. These questions included (1) rating of client dangerousness (item 13, 1 = Very safe, 6 = Very dangerous), and (2) extent that dangerousness impacted willingness to breach confidentiality (item 14, 1 = Very weak impact, 6 = Very strong impact). (Please refer to Appendix B)

Participants also responded to ten questions that provided information regarding legal, moral, and ethical information about their therapy practices (or proposed practices) if they were working with a client similar to the one depicted in the vignette presented (please refer to Appendix B). Three of these questions were regarded as dependent variables and included (1) what information was regarded as most important when deciding whether to breach confidentiality (item 15), (2) what steps they would consider if placed in this situation

(seek consultation, etc., item 16), and (3) what actions they would take in the situation (notify victim, etc., item 17). The other seven questions were used as correlates and included: (1) what state they currently practice in (item 18), (2) whether their state's laws would permit, preclude, or require a breach of confidentiality with the client presented (item 19), (3) whether they feel a moral or ethical obligation to breach confidentiality in the case presented (items 20, 21), and (4) whether they have ever breached confidentiality in cases of apparent child abuse, neglect, dependent adult abuse, client suicidality, or client homicidality (items 22, 23, 24). All of these questions are also presented in Table 1, which shows the study's design.

Index of Breaching Confidentiality. Data for the dependent variables were initially analyzed by exploratory factor analysis to identify common themes for the purposes of creating useful summated scores. Specifically, the matrix of item correlations for questions 2-14 on the questionnaire was submitted to a principal components factor analysis followed by a varimax orthogonal rotation. In conjunction with examination of scree plots, this initial factor analysis produced (based on six iterations) four factors that met the Kaiser-Guttman retention criterion of eigenvalues greater than 1.0 (please see Table 4, Appendix G, for matrix of item correlations). Factor 1 had an eigenvalue of 5.38, explaining 41.35% of the variance, Factor 2 had an eigenvalue of 1.23, explaining 9.45% of the variance, Factor 3 had an eigenvalue of 1.09, explaining 8.40% of the variance, and Factor 4 had an eigenvalue of 1.04, explaining 8.02% of the variance. Communalities for this analysis are presented in Table 5, Appendix G.

Further examination of these dependent variable items showed that some items with a very similar theme load on one factor—specifically items 2-6 and 13-14. Therefore, it was

determined by the author, in conjunction with the project supervisor and with statistical consultation, that those items loading on the first factor and which shared a common theme of information pertinent to breaching confidentiality, could be considered as an aggregate measure, which was entitled Index of Breaching Confidentiality (IBC). Thus, it was concluded, based upon the initial factor analysis, examination of the pattern and magnitude of item correlations (see Table 6, Appendix G), and consideration of an emerging theme assessed by the items, that they could be meaningfully summed to create an interpretable aggregate and theme-based score.

Data for the seven IBC items (see Table 7, Appendix G) were further evaluated utilizing a second factor analysis to determine the appropriate method for creating the summated score. Again, the matrix of item correlations was submitted to a principal components factor analysis followed by a varimax orthogonal rotation. In conjunction with examination of the scree plot, this factor analysis produced one factor that met the Kaiser-Guttman retention criterion of eigenvalues greater than 1.0. This factor had an eigenvalue of 4.88, explaining 69.64% of the variance. The Kaiser-Meyer-Olkin measure of sampling adequacy from this analysis was .92, and Bartlett's test of sphericity showed an approximate $\chi^2 = 1358.92$, $p = .000$. These statistics provide evidence for a strong factor structure. The distribution was negatively skewed (skewness coefficient = $(-.50) / (SE = .16) = -3.13$) and also had negative kurtosis (kurtosis coefficient = $(-1.07) / (SE = .32) = -3.34$), and frequency plots showed that the distribution of scores on these items was concentrated on the higher end of the scale. Reliability analysis as computed by Cronbach's Alpha was very high (.92), which assumes unidimensionality and unidirectionality of the items used in the analysis. The

component matrix that resulted from this analysis is presented in Table 7 (Appendix G), and communalities from this second factor analysis are presented in Table 8 (Appendix G).

Based on these data, total scores for the IBC were calculated by summing each participant's raw scores on each of the seven items, which led to a scale range of 7-42. High and low scores for the IBC were determined by median split (median = 33.00). Therefore, total IBC scores of 7-33 were considered to be low, and scores of 34-42 were considered to be high. In this study, the IBC was scored using participants' responses to items such that high scores indicated greater likelihood of breaching confidentiality, greater certainty in the decision, higher ratings of client danger, and stronger impact of client danger on clinician decision-making, whereas lower scores indicated lesser likelihood of breaching confidentiality, lesser certainty in the decision, lower ratings of client danger, and lesser impact of client danger on clinician decision-making.

Degree of stigmatization. Clinicians' degree of stigmatization toward HIV/AIDS-infected persons was determined by scores obtained on a modified version of the Attitudes About AIDS scale (AAA; Trezza, 1994; Appendix C). The original scale is a 24-item questionnaire based on items used in other questionnaires about AIDS information (Bean, Keller, Newburg, & Brown, 1988; DiClemente, Zorn, & Temoshok, 1986; Hogan, 1988) to which participants respond on a 5-point Likert-type scale ranging from strongly disagree (1) to strongly agree (5) to assess their degree of stigmatization evidenced toward persons with AIDS. Total scores for the original AAA range from 24-120.

For purposes of this study, data obtained from the author's prior research (Crawford & Scott, 2002) were utilized to choose five items from the total scale that most strongly elicited the construct of stigmatization. Point biserial item-to-whole correlations were

obtained from the prior thesis data to determine these items. Overall, the correlations between the 24 items and total score ranged from (.29) to (.73). Those five items with the strongest item-to-whole correlations were chosen, and are presented in Table 9. Two of the five items could be considered by study respondents to be quite upsetting and had lower point-biserial item-to-whole correlations than the other three items; thus, only the remaining three items were preserved for the study.

Table 9. Attitudes About AIDS (AAA) scale items and point-biserial item-to-whole correlations

AAA Item	Correlation
1) Homosexuals who get AIDS have gotten what they deserve. *	.67
2) Teachers who have AIDS should be restricted from teaching.	.72
3) To protect other students, students who have AIDS should be kept out of the classroom.	.72
4) The high cost of treating AIDS patients is unfair to other people in need.	.73
5) It is dangerous to have too much social contact with people who may have AIDS, especially homosexual men and IV drug abusers.*	.69

Note: * Indicates items that were not used for the study.

Total scores on the modified version of the AAA were calculated by summing the values (1-5) on the three items for each participant and therefore ranged from 3-15. High and low stigmatization scores were determined by splitting this scale at mid-point, such that scores in the range of 3-7 indicated less stigmatization, and scores in the range of 8-15 indicated more stigmatization.

There are very limited data on the reliability and validity of the AAA; however, the internal reliability estimates, according to Trezza (1994), ranged from acceptable to high. Cronbach alpha values for the AAA ranged from .70 to .92 (Trezza, 1994). Other reliability and validity estimates for the AAA are unknown; however, the reliability of the 24-item AAA in the author's prior thesis research as computed by coefficient alpha was .90.

Clinician knowledge about HIV risk behaviors. Clinicians' knowledge about HIV and transmission risks was determined by scores obtained on a modified version of the AIDS Risk Behavior Knowledge Test (Kelly, et al., 1989; Appendix D). The original scale consists of 40 true-false items that test practical knowledge concerning AIDS risk in three general areas: high-risk sexual and drug practices, risk reduction steps, and misconceptions regarding HIV/AIDS. This scale was created with the help of a panel of ten national experts in AIDS prevention (Kelly, et al., 1989). The items included in the scale were those for which 80% or more of the panel agreed on a correct answer. Internal consistency estimates as computed by the Spearman-Brown split-half reliability coefficient for scores on the odd-numbered items and scores on the even-numbered items as computed by Kelly, et al. (1989) was .73. Kuder-Richardson (KR-20) estimates as computed by Kelly, et al. (1989) to determine the average of all possible split-half coefficients of the test was .74. The standard error of measurement based on the KR-20 coefficient was 2.14 (Kelly, et al., 1989). Test-retest reliability was evaluated by administration of the test to college students separated by a two-week interval, and was computed to be .84, indicating a high degree of temporal stability for the instrument (Kelly, et al., 1989).

For purposes of this study, ten questions from the original set of forty were chosen. Point-biserial item-to-whole correlation coefficients and the proportion of correct responses to each item (below .80) as reported by Kelly, et al. (1989) were used to choose the 15 most difficult questions on the total scale. Those fifteen items, along with the above statistics, are presented in Table 10. In order to reduce the number of items to be used in this study to ten, the set of 15 questions was given to a pilot group from a graduate psychology class comprised of 1st, 2nd, 3rd and 4th-year graduate students in psychology at a large, Midwestern

university. Completion of the questionnaire was voluntary and served as informed consent. Of the twenty-three respondents, thirteen were female, and ten were male. They ranged in age from 22-46. Responses were credited with one point for each correct answer and zero points for incorrect or omitted answers, which led to a possible summated score range of 0-15 for the pilot group. The mean score for this group was 12.52 (SD = 1.20). The final ten items utilized for the AIDS Knowledge Scale were chosen based on the level of difficulty (number of persons from the pilot group who answered it incorrectly) and point-biserial item-to-whole correlation coefficients computed with the data obtained from the pilot group. The final ten items, along with degree of difficulty and item-to-whole correlation coefficients from the pilot group, are presented in Table 11.

Total scores on the 10-item modified version of the AKS utilized for this study were calculated by crediting responses with one point for each correct answer and zero points for incorrect or omitted responses. The AKS provided a summative score, with a score range from 0-10. After receiving statistical consultation, high and low knowledge scores were determined by mean split, such that scores in the range of 0-8 indicated less AIDS-related knowledge, and scores in the range of 9-10 indicated more AIDS-related knowledge for participants in this study.

Table 10. Point-Biserial Item-to-Whole Correlation Coefficients for the 15 Items on the AIDS Risk Behavior Knowledge Test used in the Pilot Test and the Proportion of Correct Responses to Each Item as reported by Kelly, et al. (1989)

Item	Correlations	% Correct
1) By reducing the number of different sexual partners, you are effectively protected from AIDS.	.38	.80
2) The AIDS virus does not penetrate unbroken skin.	.32	.59
3) Sharing toothbrushes and razors can transmit the AIDS virus.	.11	.58
4) People carrying the AIDS virus generally feel quite ill.	.50	.76
5) Vaginal intercourse carries high risk for AIDS virus transmission.	.11	.76
6) Healthy persons in AIDS risk groups should not donate blood.	.10	.73
7) Sharing kitchen utensils or a bathroom with a person with AIDS poses no risk.	.33	.65
8) Intravenous drug users become exposed to the AIDS virus because the virus is often contained in heroin, amphetamines, and the injected drugs.	.46	.80
9) It is more important to take precautions against AIDS in large cities than in small cities.	.39	.80
10) A negative result on the AIDS virus antibody test can occur even for people who carry the virus.	.30	.80
11) A positive result on the AIDS virus antibody test can occur even for people who do not carry the virus.	..27	.62
12) Most present cases of AIDS are due to blood transfusions that took place before 1984.	.43	.68
13) A great deal is now known about how the AIDS virus is transmitted.	.16	.68
14) Donating blood carries no AIDS risk for the donor.	.40	.67
15) The AIDS virus can be transmitted by mosquitoes or cockroaches.	.32	.76

Demographic questionnaire. This 14-item questionnaire consisted of questions pertaining to the participant's gender, ethnicity, education, and employment characteristics, as well as degree of experience with HIV-positive clients, their current practices with informing clients of limits to confidentiality, and actual experience with breaching confidentiality. (Please refer to Appendix E)

Table 11. Point-Biserial Item-to-Whole Correlation Coefficients for the 15 Items on the AIDS Risk Behavior Knowledge Test and the Proportion of Correct Responses to Each Item from the Pilot Group (N=23)

Item	Correlations	% Correct
1) By reducing the number of different sexual partners, you are effectively protected from AIDS.	--	1.00
2) The AIDS virus does not penetrate unbroken skin. *	.72	.87
3) Sharing toothbrushes and razors can transmit the AIDS virus.*	.43	.52
4) People carrying the AIDS virus generally feel quite ill. *	.10	.96
5) Vaginal intercourse carries high risk for AIDS virus transmission. *	.68	.78
6) Healthy persons in AIDS risk groups should not donate blood. *	.39	.48
7) Sharing kitchen utensils or a bathroom with a person with AIDS poses no risk.	--	1.00
8) Intravenous drug users become exposed to the AIDS virus because the virus is often contained in heroin, amphetamines, and the injected drugs.	--	1.00
9) It is more important to take precautions against AIDS in large cities than in small cities. *	.10	.96
10) A negative result on the AIDS virus antibody test can occur even for people who carry the virus.	-.10	.96
11) A positive result on the AIDS virus antibody test can occur even for people who do not carry the virus. *	.36	.43
12) Most present cases of AIDS are due to blood transfusions that took place before 1984. *	.01	.91
13) A great deal is now known about how the AIDS virus is transmitted. *	.06	.87
14) Donating blood carries no AIDS risk for the donor. *	.11	.83
15) The AIDS virus can be transmitted by mosquitoes or cockroaches.	-.10	.96

Note: (--) =correlations that cannot be computed because at least one of the variables is constant (100% correct). (*)=Item was included in AIDS Knowledge Scale (AKS) for this study.

Procedure

This study was conducted using the United States Postal Service. The 720 potential participants (as selected by the APA Office for Research) were sent a pre-questionnaire postcard alerting them that they would be receiving a questionnaire in the mail. Approximately one week later they were sent a questionnaire packet containing a letter of introduction, a coded response card to assist in determining individuals who had not responded, and a 51-item paper and pencil questionnaire. Completion and return of the

questionnaire packet constituted informed consent for participation in the study. This study was reviewed and approved by the Psychology Department Committee on Human Participants In Research and by the Iowa State University Research Review Board (IRB). It was determined to meet all applicable ethical and institutional criteria for the protection and welfare of human participants. Please see a copy of the IRB approval sheet (Appendix H).

As indicated by the instructions on the questionnaire (see Appendix A), participants were instructed to read the vignette provided and to indicate whether they perceived enough information was presented to make a decision regarding breaching confidentiality. They were then instructed to answer the questionnaire which assessed likelihood of breaching confidentiality, degree of certainty about the decision, what steps they would take in working with that client and whether they would receive consultation or information, perceptions of the client's dangerousness and its impact on decision-making, information about state laws, perceptions about moral and ethical obligations, and prior experiences with breaching confidentiality (see Appendix B).

Next, participants were instructed to complete the stigmatization (AAA, see Appendix C) and AIDS knowledge (AKS, see Appendix D) questionnaires, and then fill out the demographic questionnaire (see Appendix E). The order of presentation was the same for all participants, with the vignette occurring first. This order was used to minimize potential sensitization of participants to issues and concerns related to stigmatization. After completing all materials, the participants were asked to return their packet in the postage-paid envelope provided. Participants were also asked to return their coded response card separately from the packet to determine who had not responded (and to assure anonymity), as well as to request a copy of the study's results. Participants who had not responded were sent reminder postcards

approximately two months after the initial packets were sent out. A second mailing of questionnaire packets was sent to persons who had not participated for approximately two weeks after the reminder postcards were sent. Participants who returned response cards were entered in a drawing for two \$50 gift certificates to a national bookstore chain for their participation. Please refer to the cover letter presented in Appendix F.

CHAPTER 3. RESULTS

Missing Data

No cases were deleted prior to the analyses as a result of missing data. The following analyses were performed using the data provided by the total number of respondents (n = 231).

Revised Hypotheses

As previously noted, data analysis of the dependent variables showed very high intercorrelations between items associated with breaching confidentiality, certainty, perceptions of dangerousness, and impact of dangerousness on decision-making (please refer to Table 6, Appendix G). These intercorrelations, along with the fact that these items also loaded on the same factor when factor analyzed, suggested that the items were measuring a related theme about information important to breaching confidentiality. Therefore, a composite index was constructed, and the revised study hypotheses consistent with this change include:

- (1) Clinicians assigned vignettes that depict HIV-positive clients in the “high dangerousness” condition will have higher scores on the IBC as compared to clinicians assigned to vignettes that depict an HIV-positive client of medium or low dangerousness. Further, clinicians assigned to vignettes depicting HIV-positive clients of medium dangerousness will have higher IBC scores than clinicians assigned to vignettes depicting an HIV-positive client of low dangerousness. This finding is expected based on the findings of McGuire et al. (1995) and Totten, et al. (1990). In both of these studies, clinicians were more

willing to breach confidentiality in scenarios that depicted highly dangerous clients as compared to clients of low dangerousness.

- (2) Clinicians assigned vignettes depicting male clients will have higher IBC scores as compared to clinicians assigned vignettes depicting female clients. This finding is predicted based on the research of Palma and Iannelli (2002), who concluded from their study that psychology trainees showed the greatest therapeutic reactivity toward heterosexual males and the least therapeutic reactivity toward heterosexual females. This reactivity was measured by looking at the change in willingness to breach confidentiality between “safe” and “unsafe” client scenarios for each client type.
- (3) Clinicians with higher levels of stigmatization will have higher IBC scores (regardless of vignette assignment) as compared to clinicians with lower levels of stigmatization.
- (4) Clinicians with higher levels of HIV-related knowledge (transmission risks in particular) will have lower IBC scores as compared to clinicians with lower levels of HIV-related knowledge, based in part on research by Simone and Fulero (2001), who found that increased knowledge led to decreased stigmatization and lower likelihood of breaching confidentiality.
- (5) Clinicians with past experience of contact with HIV-positive clients will have lower IBC scores than those clinicians who have not had such contact. This finding is based on the author’s prior research (Crawford & Scott, 2002), which found that degree of HIV-positive client contact significantly impacted

willingness to breach confidentiality with HIV-positive clients, such that increased contact led to less willingness to breach.

Manipulation Check

To determine the effectiveness of the independent variable manipulation of level of client dangerousness (low/medium/high), two one-way Analysis of Variance (ANOVA) procedures were conducted. Of interest was whether participants responded to items 13 (“How would you rate the level of the client’s dangerousness in this vignette?”) and 14 (“To what extent does this client’s level of dangerousness have an impact on your willingness or unwillingness to breach confidentiality?”) differently based on client dangerousness condition. The first ANOVA utilized client danger as the independent variable and item 13 as the dependent variable and was significant, $F(2, 228) = 4.83, p = .009$. This finding suggests that there were significant differences between groups (low/medium/high) on ratings of client dangerousness. Bonferroni post hoc analyses suggested that there were significant differences on ratings of client danger between the high and low dangerousness groups ($p = .01$), but the comparisons between the high and medium dangerousness groups and the medium and low dangerousness groups were not significant. Thus, this would suggest that clinicians did not rate the actual level of client dangerousness significantly differently between these groups.

The second ANOVA utilized client danger as the independent variable and item 14 as the dependent variable and was also significant, $F(2, 228) = 3.42, p = .03$. This finding suggests that there were significant differences between groups (low/medium/high) when it came to impact of client dangerousness on ethical decision-making. Bonferroni post hoc

analyses suggested that there were significant differences with regard to impact of danger on decision-making between the high and low dangerousness groups ($p = .03$), but the comparisons between the high and medium dangerousness groups and the medium and low dangerousness groups were not significant. Thus, this would suggest that clinicians did not perceive that the client's level of dangerousness would impact ethical decision-making differentially between these latter group comparisons.

Overall, these checks would suggest that the strongest manipulation of client dangerousness was found between the high and low dangerousness conditions.

Another manipulation check was conducted to assess whether the vignettes captured facets of real-world experience when working with HIV-positive clients. This check involved HIV-positive client contact and ratings of vignette similarity to situations encountered in actual practice. A one-way ANOVA was conducted, utilizing contact as the independent variable (none/some) and ratings of similarity as the dependent variable. This ANOVA was significant, $F(1,229) = 30.35$, $p = .000$, suggesting that those clinicians who had experienced HIV-positive client contact were more likely to rate the presented vignette as more similar to situations encountered in actual practice as compared to those who had not experienced such contact.

Further, a crosstabulation procedure was conducted using these variables, and produced a Pearson $\chi^2 = 29.08$, $p = .000$, suggesting that there is an association between contact and ratings of vignette similarity. Although this chi-square statistic does not provide information about the strength or direction of that association, examination of the frequencies presented in the crosstabulation table suggest that respondents with contact are more likely to rate the vignettes as similar as compared to those without contact.

Taken together, these results suggest that the vignettes did capture facets of real-world experience that are experienced by clinicians who work with the HIV-positive population.

Overall Data Analysis

Intercorrelations between all independent and dependent variables are presented in Table 12, Appendix G.

The main dependent variable utilized in this study, Index of Breaching Confidentiality (IBC), is a summated total score consisting of likelihood of breaching confidentiality, degree of certainty, perceptions of client dangerousness, and impact of dangerousness ratings on decision-making for each study participant. Means, standard deviations, and standard errors on the IBC for each of the independent variables are presented in Table 13, Appendix G (the reader should be cautioned that the means could be misleading as a result of lack of normality in the scale). The mean, median, and mode for this scale as computed for this sample were 30.26 (SD = 9.53), 34.00, and 42.00, respectively. The scoring of the scale created a possible score range of 7-42, and the actual score range for this sample was 10-42. The scale was strongly negatively skewed (skewness coefficient = $(-.51) / (SE = .16) = -3.19$), and also had negative kurtosis (kurtosis coefficient = $(-1.06) / (SE = .32) = -3.32$), which suggests that score values were highly concentrated at the upper end of the scale. Furthermore, the standardized residuals were not normally distributed.

A parametric test (overall Univariate Analysis of Variance—ANOVA) analysis involving the independent variables client gender and client level of dangerousness and the

dependent variable IBC total scores was initially conducted to begin data analysis, and produced a Levene's test statistic of $F(5, 225) = 3.00, p = .01$, which suggests that the error variance of the dependent variable was not constant across groups.

Thus, it was clear that utilization of parametric analytic methods would involve substantial violations of the assumptions behind such tests, as the data showed non-constant variance and non-normality of the distribution of scores on the dependent variable.

Therefore, to determine associations between the independent variables client gender and client level of dangerousness with IBC scores, binary logistic regression was pursued.

Logistic regression is used when prediction of the presence or absence of a characteristic or outcome is desired, based on values of a set of predictor variables (Agresti & Finlay, 1997). In order to utilize logistic regression for these data, scores on the IBC were dichotomized into high and low values utilizing the re-code function based on median split for the scale. Another data consideration for the use of logistic regression includes that the independent variables are interval level or categorical, and for this study, both client gender (male/female), and client level of dangerousness (high/medium/low) are categorical variables.

In this study, two sets of direct logistic regression analyses were performed to explore and assess which predictors, or sets of predictors, would predict membership in the categorical dependent variable high and low IBC total scores. Thus, all predictors entered the equation simultaneously, and this type of analysis allows for the evaluation of the contributions that are made by each of the predictors over and above that of the other predictors, as if it entered the equation last (Tabachnick & Fidell, 2001).

The first set of regressions included the separate single entry of two predictor variables, client gender, and client level of dangerousness, and the interaction between the two variables (client gender X client dangerousness). The odds ratio for each of the individual predictor variables represents the comparative odds of membership in the low IBC total score group (coded 0), as compared to the high IBC total score group (coded 1). The constant regression coefficient (β) = .04, SE = .13, and Wald chi-square statistic = .11, $p = .74$, suggest that there were no significant differences between number of cases in the observed groupings of high ($n = 118$) and low ($n = 113$) IBC total scores. A test of the full model with both predictors and the interaction against a constant-only model was statistically reliable, χ^2 ($df = 5, n = 231$) = 13.90, $p = .02$, indicating that the predictors, as a set, reliably distinguished between high and low IBC total scores.

For the statistically significant chi-square analysis, a subsequent Hosmer and Lemeshow Goodness-of-Fit Test was conducted to ascertain whether there were significant differences between the expected and observed data for each of the individual elements of the individual predictors. The ensuing chi-square goodness-of-fit test was not significant, χ^2 ($df = 4, n = 231$) = .00, $p = 1.00$, suggesting that the model produced a good fit between observed and expected frequencies.

The classification table (see Table 14) shows the number of participants that would be correctly classified in high and low IBC total score groups based on the predictor variables, client gender and client level of dangerousness, and their interaction. Overall, prediction success was mixed, with 79% of the observed participants in the “low” IBC total score group correctly classified, and only 43% of the observed participants in the “high” IBC total score group correctly classified, for an overall success rate of 60%.

Table 14. Classification table for Logistic Regression analyses

		Predicted		Percentage Correct	
		Recode into high/low .00	1.00		
Observed	Recode into high/low	.00	89	24	78.8%
		1.00	67	51	43.2%
Overall Percentage					60.6%

Note: n = 231

Table 15 shows regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for each of the predictors. In the logistic regression, the predictor variable of level of client dangerousness was split into comparisons involving high versus low dangerousness, and high versus medium dangerousness conditions. According to the Wald criterion, which evaluates the contribution of an individual predictor to a model and essentially functions as the square of a t-statistic, none of the overall predictors or the interaction significantly predicted IBC total scores. However, a significant Wald statistic was obtained for the comparison of odds ratios between high and low dangerousness, $z = 3.74$, $p = .05$. In addition, odds ratios of .39 (95% CI = .15 - 1.01) for high versus low dangerousness, and .45 (95% CI = .17 - 1.20) for high versus medium dangerousness, show significant change in IBC total scores on the basis of a one unit change in level of client dangerousness. Thus, there is a 60% decrease in the odds of being in the low IBC total score group when there is a one-unit increase in dangerousness. Odds ratios that are farther from a value of 1.00 indicate a more influential predictor.

Table 15. Regression Coefficients, Wald statistics, Odds Ratios, and Confidence Intervals for High and Low IBC total scores

Variables	B	Wald Test (z-ratio)	Odds Ratio	95% Confidence Interval	
				Lower	Upper
<u>First Regression Analysis</u>					
Gender	.03	.004	1.03	.39	2.73
Client Dangerousness		4.14			
High vs. Low	-.95	3.74	.39	.15	1.01
High vs. Medium	-.80	2.54	.45	.17	1.20
Gender X Danger		.29			
Gender X Danger(1)*	-.32	.21	.73	.19	2.79
Gender X Danger(2)*	-.32	.23	.72	.19	2.70
Constant	.74	4.05	2.09		
<u>Second Regression Analysis</u>					
Gender	-.19	.50	.82	.48	1.41
Client Dangerousness		12.41			
High vs. Low	-1.12	10.51	.33	.17	.64
High vs. Medium	-.98	8.48	.38	.20	.73
Clinician Gender	-.001	.000	.99	.58	1.71
Constant	.86	7.69	2.37		

Note: n = 231; * Danger(1) = high vs. low danger, Danger (2) = high vs. medium danger

The second set of regressions included the separate single entry of three predictor variables, client gender, client level of dangerousness, and clinician gender. The odds ratio for each of the individual predictor variables represents the comparative odds of membership in the low IBC total score group (coded 0), as compared to the high IBC total score group (coded 1). Similar to the first regression analysis, the constant regression coefficient (β) = .04, SE = .13, and Wald statistic χ^2 (df = 1, n = 231) = .11, p = .74, suggesting that there were no significant differences between number of cases in the observed groupings of high (n = 118) and low (n = 113) IBC total scores. A test of the full model with all three predictors against a constant-only model was statistically reliable, χ^2 (df = 4, n = 231) = 13.61, p = .009, indicating that the predictors, as a set, reliably distinguished between high and low IBC total scores.

For the statistically significant chi-square analysis, a subsequent Hosmer and Lemeshow Goodness-of-Fit Test was conducted to ascertain whether there were significant differences between the expected and observed data for each of the individual elements of the individual predictors. The ensuing chi-square goodness-of-fit test was not significant, χ^2 (df = 8, n = 231) = 3.16, p = .92, suggesting that the model produced a good fit between observed and expected frequencies.

Interestingly, none of the values in the classification table from this second regression analysis of predicted and observed values changed from the table produced from the first analysis (please see Table 14). Again, prediction success was mixed, with 79% of the observed participants in the “low” IBC total score group correctly classified, and only 43% of the observed participants in the “high” IBC total score group correctly classified, for an overall success rate of 60%. These results suggest that clinician gender doesn’t provide any more explanation into the regression model than was initially determined with client gender and client level of dangerousness.

Table 15 shows regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for each of the predictors from both regression analyses. According to the Wald criterion, only level of client dangerousness reliably predicted IBC total scores in this second regression, $z = 12.41$, p = .002. More specifically, significant Wald statistics were obtained for comparisons of the odds ratios between high and low dangerousness, $z = 10.51$, p = .001, and high and medium dangerousness, $z = 8.48$, p = .004, when client and clinician gender are controlled in the model. In addition, odds ratios of .33 (95% CI = .17 - .64) for high versus low dangerousness, and .38 (95% CI = .20 - .73) for high versus medium dangerousness, show significant change in IBC total scores on the basis

of a one unit change in level of client dangerousness. More specifically, there is an approximately 70% decrease in the odds of being in the low IBC total score group when there is a one-unit increase in dangerousness.

HIV-Related Knowledge & Stigmatization

AIDS Knowledge Scale (AKS). As previously noted, high and low scores for the AIDS Knowledge Scale (AKS), which assessed level of clinician knowledge about HIV/AIDS, were determined by mean split, such that scores in the range of 9-10 on the AKS were considered to be high HIV-related knowledge, and scores in the range of 0-8 were considered to be low HIV-related knowledge. The psychologists in this study had very high levels of HIV-related knowledge (AKS: $M = 8.06$, $SD = 1.18$, please see Table 16 for frequency statistics). These results suggest that these clinicians have high levels of practical knowledge concerning AIDS risk in three general areas: high-risk sexual and drug practices, risk reduction steps, and misconceptions regarding HIV/AIDS. The distribution of scores were highly, negatively skewed (skewness statistic = $(-.87) / (SE = .16) = -5.44$) and highly, positively kurtotic (kurtosis statistic = $(2.38) / (SE = .32) = 7.44$), suggesting that scores were concentrated at the higher end of the scale, but the distribution has longer “tails” than those of a normal distribution. Further, the standard residuals of the scale were not normally distributed. Thus, in order to test the original hypothesis regarding the impact of clinician knowledge on IBC scores, non-parametric statistics were utilized, as use of parametric tests would violate assumptions about normal distribution of scores.

Therefore, a crosstabulation procedure was conducted to determine the association between clinician knowledge and IBC scores. The crosstabulation produces a Pearson chi-

square and an odds ratio to determine association. For this crosstabulation between dichotomous measures of clinician knowledge (high/low) and IBC total score (high/low), the chi-square statistic was significant, χ^2 (df = 1, n = 231) = 4.83, p = .03, suggesting that there is an association between levels of clinician knowledge and IBC scores. Although this chi-square statistic does not provide information about the strength or direction of that association, examination of the frequencies presented in the crosstabulation table suggest that respondents with high knowledge scores are more likely to have high IBC total scores as compared to those with low knowledge scores. The odds ratio was 1.83, suggesting that the odds are approximately 83% greater that high knowledge scores are associated with high IBC scores (please see Table 17 for a complete listing of crosstabulation odds ratios and confidence intervals). More specifically, of those respondents who had low knowledge scores (n = 145), 54.5% had low IBC scores and 45.5% had high IBC scores; of those respondents who had high knowledge scores (n = 86), 39.5% had low IBC scores and 60.5% had high IBC scores.

The crosstabulation also produces a conservative, nonparametric directional measure, Somers' "d", which indicates the extent to which knowledge scores predict IBC scores. This measure makes corrections for ties in the rows and columns and compares the number of concordant and discordant pairs that are included in the classification table. For this crosstabulation, Somers' d = .15, p = .03, which suggests that knowledge scores are predictive of IBC total scores, such that high knowledge scores predict high IBC scores.

Attitudes about AIDS scale (AAA). Also previously noted, respondent stigmatization scores were determined by utilizing total scores on a modified version of the AAA (Trezza, 1994). High and low stigmatization scores were initially to be determined by splitting this

scale at mid-point, such that scores in the range of 3-7 would indicate less stigmatization, and scores in the range of 8-15 would indicate more stigmatization. However, after receiving statistical consultation, the author chose to utilize a modal split to determine high and low scores, as the most significant differences would likely emerge when comparing those participants that adamantly disagreed with all three AAA questions (thus scoring a “3” on the scale), and those that considered other responses (thus achieving a score other than “3”).

The respondent psychologists were not stigmatizing of persons with AIDS overall ($M = 4.21$, $SD = 1.71$, please see Table 16 for frequency statistics), and one hundred twenty-eight ($n = 128$, 55%) of the 231 respondents had scores of “3” on the scale. Specifically, the majority of respondents stated they either disagreed or strongly disagreed that “teachers who have AIDS should be restricted from teaching” ($n = 219$, 94.8%), “to protect other students, students who have AIDS should be kept out of the classrooms” ($n = 220$, 95.2%), and “the high cost of treating AIDS patients is unfair to other people in need” ($n = 197$, 85.3%). The majority of respondents ($n = 222$, 96.1%) had scores on the AAA that fell in the 3-7 range (mode = 3.00), which suggests that most of the clinicians would have been assigned “low stigmatization” if the scale had been split at mid-point. As a result of the data for the AAA being significantly concentrated in the direction of “strongly disagree” for all three items, the items utilized for this study did not indicate stigmatization of respondents.

Thus, the distribution of scores on the AAA were highly, positively skewed (skewness coefficient = $(1.55) / (SE = .16) = 9.69$) and highly, positively kurtotic (kurtosis coefficient = $(2.50) / (SE = .32) = 7.81$), suggesting that AAA scores were strongly concentrated at the lower end of the scale, and had longer tails than those of a normal distribution. Furthermore, the standard residuals of the scale were not normally distributed.

In order to test the original hypothesis regarding the impact of clinician stigmatization on IBC scores, non-parametric statistics were utilized, as the use of parametric tests would substantially violate the assumption of normal distribution of scores.

Therefore, a crosstabulation procedure was conducted to determine the association between clinician stigmatization and IBC scores. For this crosstabulation between dichotomous measures of clinician stigmatization (high/low—determined by modal split) and IBC total score (high/low), the chi-square statistic was not significant, χ^2 (df = 1, n = 231) = .01, $p = .92$, suggesting that there is no association between levels of clinician stigmatization and IBC scores, as the observed counts did not differ significantly from the expected counts in the crosstabulation table. The odds ratio was 1.03, also suggesting that there is little change in IBC scores on the basis of change in stigmatization scores (please see Table 17 for a complete listing of crosstabulation odds ratios and confidence intervals).

To determine the association between clinician knowledge and stigmatization, results from the crosstabulation procedure utilizing the dichotomized measures for the two variables was not significant, χ^2 (df = 1, n = 231) = .21, $p = .65$. This suggests that there is no association between respondent HIV-related knowledge and levels of respondent stigmatization. The odds ratio was 1.13, suggesting that there is little change in knowledge scores on the basis of change in stigmatization scores (please see Table 17 for odds ratios and confidence intervals).

Table 16. Frequency Table for Knowledge and Stigmatization (AKS, AAA)

Variable	Mean	Median	Mode	SD	Range	Possible Score
Knowledge						
AKS	8.06	8.00	8.00	1.18	2-10	0-10
Stigmatization						
AAA	4.21	3.00	3.00	1.70	3-12	3-15

Note: n = 231

Table 17. Crosstabulation Odds Ratios and Confidence Intervals

Variables	Odds Ratio	95% Confidence Interval	
		Lower	Upper
AKS and IBC	1.83	1.07	3.15
AAA and IBC	1.03	.61	1.73
AAA and AKS	1.13	.66	1.94
Contact (# in last 3 yrs) and IBC	.77	.46	1.29
Contact (% on current caseload) and IBC	.87	.50	1.51
Contact (# in last 3 yrs) and AKS	.81	.48	1.39
Contact (% on current caseload) and AKS	.67	.37	1.21
Contact (# in last 3 yrs) and AAA	.88	.52	1.48
Contact (% on current caseload) and AAA	.85	.49	1.49
Contact (# in last 3 yrs) and Perception of Enough Info	1.19	.63	1.98
Contact (% on current caseload) and Perception of Enough Info	.96	.51	1.76
Perception of Enough Info and IBC	.09	.04	.19
Ratings of Similarity and Contact (# in last 3 yrs)	4.07	2.15	7.73
Ratings of Similarity and Contact (% on current caseload)	4.66	2.54	8.56

Note: n = 231

Influence of Client Contact

Retrospective self-report of the total number of HIV-positive clients that were seen by the respondents in the last 3 years was 1,171 clients.

To determine the association between contact with clients who are HIV-positive and scores on the IBC, AKS, and AAA, crosstabulation procedures were utilized for the number of HIV-positive individuals each participant had worked with in the last 3 years, respectively, as well as overall percentage of HIV-positive individuals that were on their current caseload,

given the non-normal distributions of the IBC, AKS, and AAA. For each of the contact measures (number in last 3 years and percent on current caseload), the variables were dichotomized to create groupings based on those who had experienced contact and those who had not.

The crosstabulations between contact and IBC total scores produced Pearson chi-square statistics that were not significant: contact—number of HIV-positive clients seen in last 3 years (none/some) and IBC total scores (high/low), χ^2 (df = 1, n = 231) = 1.02, p = .31; percentage of HIV-positive clients on current caseload (none/some) and IBC total scores (high/low), χ^2 (df = 1, n = 231) = .26, p = .61. These findings suggest that there is no association between prior or current HIV-positive client contact and IBC total scores. Odds ratios and confidence intervals are presented in Table 17.

The crosstabulations between contact and clinician levels of HIV-related knowledge (AKS total scores) also produced Pearson chi-square statistics that were not significant: contact—number of HIV-positive clients seen in last 3 years (none/some) and AKS total scores (high/low), χ^2 (df = 1, n = 231) = .58, p = .45, percentage of HIV-positive clients on current caseload (none/some) and AKS total scores (high/low), χ^2 (df = 1, n = 231) = 1.76, p = .18. These findings suggest that there is no association between prior or current HIV-positive client contact and AKS total scores. Odds ratios and confidence intervals are presented in Table 17.

Finally, the crosstabulations between contact and clinician levels of stigmatization (AAA total scores) also produced Pearson chi-square statistics that were not significant: contact—number of HIV-positive clients seen in last 3 years (none/some) and AAA total scores (high/low), χ^2 (df = 1, n = 231) = .24, p = .63, percentage of HIV-positive clients on

current caseload (none/some) and AAA total scores (high/low), χ^2 (df = 1, n = 231) = .32, p = .57. These findings suggest that there is no association between prior or current HIV-positive client contact and low and high AAA total scores. Odds ratios and confidence intervals are presented in Table 17.

Overall, these findings show that there are no significant associations between number of HIV-positive clients worked with in the last three years or percent of HIV-positive clients on current caseload and scores on the IBC, AKS, or AAA for the participants in this study. Means and standard deviations (as well as other frequency statistics) for number and percentage of HIV-positive clients with whom the psychologists had worked are presented in Table 18.

Table 18. Frequency Table for Number and Percent of HIV-positive Client Contact

	Mean	Median	Mode	SD	Range
In the past 3 years, approximately how many clients have you worked with that were HIV-positive?					
Males	3.74	1.00	0.00	10.69	0-100
Females	1.33	0.00	0.00	5.04	0-55
Please estimate the percentage of clients on your current caseload that are HIV-positive.					
Males	2.13	0.00	0.00	8.40	0-100
Females	1.16	0.00	0.00	7.24	0-80

Note: n = 231

Perceptions of Sufficient Vignette Information

The psychologists were also asked to respond to whether they perceived enough information was provided in the vignettes to warrant a breach of confidentiality. Of the 231 respondents, 67 (29%) responded “no” and 164 (71%) responded “yes.”

To determine if there was an association between perception of sufficient information and degree of prior or current HIV-positive client contact, crosstabulation procedures were conducted, utilizing the dichotomized variables for perception of enough information (yes/no) and HIV-positive client contact (as assessed by both number of HIV-positive clients seen in last 3 years and percent of HIV-positive clients on current caseload—none/some, coded as 0 and 1, respectively for both types of contact). The Pearson chi-square statistics were not significant, χ^2 (df = 1, n = 231) = .15, p = .70, and χ^2 (df = 1, n = 231) = .02, p = .89, respectively, suggesting that there is no association between prior or current contact with HIV-positive clients and perceptions that enough information was provided in the vignette to warrant a breach of confidentiality. The odds ratios for these crosstabulations were 1.12 and .96, respectively, and suggest that there is little change in perceptions of enough information presented in the vignettes based on level of HIV-positive client contact (odds ratios and confidence intervals are presented in Table 17).

A crosstabulation procedure was also conducted to assess the association between perceptions that enough information was presented in the vignette to make a decision regarding a breach of confidentiality and IBC total scores. The procedure utilized the dichotomized variables for perception of enough information (yes/no) and IBC total scores (high/low). The Pearson chi-square statistic was significant, χ^2 (df = 1, n = 231) = 49.37, p = .000, suggesting that there is an association between perception that enough information was

provided in the vignette to make a decision about breaching confidentiality and IBC total scores. Although this chi-square statistic does not provide information about the strength or direction of that association, examination of the frequencies presented in the crosstabulation table suggest that respondents who perceived that enough information was presented in the vignette to make a decision about breaching confidentiality were more likely to have high IBC total scores as compared to those who did not perceive that enough information was presented.

The odds ratio was .09, suggesting that respondents were approximately 91% more likely to have low IBC scores when they stated there was not enough information presented in the vignette (please see Table 17 for a complete listing of crosstabulation odds ratios and confidence intervals). More specifically, of those that stated enough information was presented ($n = 164$), approximately 34.1% had low IBC scores, whereas 65.9% had high IBC scores; of those that stated there was not enough information presented ($n = 67$), 85.1% had low IBC scores and 14.9% had high IBC scores. Thus, it appears that perceptions that there wasn't enough information presented made respondents more conservative, and thus, less likely to make a decision to breach and less certain about their decision-making.

The crosstabulation also produced a conservative, nonparametric directional measure, Somers' "d", which indicates the extent to which perceptions of enough information predict IBC scores. As was explained previously, this measure makes corrections for ties in the rows and columns and compares the number of concordant and discordant pairs that are included in the classification table. For this crosstabulation, Somers' $d = -.51$, $p = .000$, which suggests that perceptions of enough information in the vignette are predictive of IBC total scores, such

that lack of perceived information predicts low IBC scores. The negative sign is due to coding of the perception variable (1 = yes, 2 = no).

Ratings of Vignette Similarity to Experiences in Actual Practice

The respondents were also asked to rate how similar the vignette presented was to situations they actually have encountered in their practice (1 = very dissimilar; 6 = very similar), (see Appendix B). Most respondents (n=164, 71%) indicated that the vignette was either slightly, moderately, or very dissimilar to situations they have experienced (M = 2.30, SD = 1.68).

A crosstabulation procedure was conducted to assess the association between ratings of vignette similarity and degree of contact, computed by number of HIV-positive clients seen in the last 3 years and percentage of one's current caseload that is HIV-positive. Ratings of similarity were dichotomized into those who labeled the vignette as similar and those who rated it as dissimilar (similarity—no/yes, coded as 0 and 1, respectively). The Pearson chi-square statistics were significant, χ^2 (df = 1, n = 231) = 19.83, p = .000 (number in last 3 years), and χ^2 (df = 1, n = 231) = 26.41, p = .000 (percentage on current caseload), indicating that there are significant associations between ratings of vignette similarity and prior and current HIV-positive client contact. Although these chi-square statistics do not provide information about the strength or direction of those associations, examination of the frequencies presented in the crosstabulation tables suggest that respondents who rated the vignettes as similar were more likely to have had HIV-positive client contact as compared to those who rated the vignettes as dissimilar.

The odds ratios were 4.73 and 4.66, respectively, suggesting that respondents who had experienced HIV-positive client contact, currently and/or in the past, were greater than four times more likely to have rated the vignettes as similar to experiences they have encountered in actual clinical practice than those who had not experienced such contact (please see Table 17 for a complete listing of crosstabulation odds ratios and confidence intervals). More specifically, of those respondents who rated the vignette to be dissimilar ($n = 164$), 56.1% had not had contact (as assessed by number of HIV-positive client in last three years), and 43.9% had experienced contact. Further, of those that rated the vignette to be similar ($n = 67$), 23.9% had not experienced HIV-positive client contact (number in last three years), and 76.1% had experienced contact. In addition, of those who rated the vignette to be dissimilar, 78% had not experienced contact as assessed by percentage of current caseload that is HIV-positive, whereas 22% had experienced contact. Of those that rated the vignette to be similar, 43.3% had not experienced contact by this measure and 56.7% had experienced contact. Taken together, these findings suggest that the vignettes may have captured some facets of the real-world situations that are confronted while working with HIV-positive clients.

These crosstabulations also produced Somers' "d" statistics, which indicate the extent to which contact with HIV-positive clients will predict ratings of similarity. For these crosstabulations, Somers' $d = .27$, $p = .000$ (contact—number in last three years) and Somers' $d = .33$, $p = .000$ (contact—percent on current caseload), which suggest that contact with HIV-positive clients is predictive of ratings of vignette similarity, such that having contact with HIV-positive persons predicts ratings of greater vignette similarity.

Impact of Past Breaching of Confidentiality on IBC Scores

Respondents were asked to respond to three questions that assessed their past breaching of confidentiality practices in cases of apparent client suicidality, client homicidality, and child abuse, neglect, and/or dependent adult abuse. Means and standard deviations for past breaching on the IBC is presented in Table 19. The sample was split into two groups based on their past practices—those that had never breached and those who had breached in at least one of the areas listed (coded as 0 and 1, respectively).

A crosstabulation procedure was conducted to assess the association between prior breaching practices and IBC total scores. The Pearson chi-square statistic was not significant, χ^2 (df = 1, n = 231) = .34, p = .56. This finding suggests that there was no significant association between IBC total scores and past breaching practices. Please see Table 17 for a complete listing of crosstabulation odds ratios and confidence intervals.

Table 19. Index of Breaching Confidentiality (IBC) Means and Standard Deviations for Past Breaching Practices

	Index of Breaching Confidentiality	
	Mean	SD
<u>Past Breaching Practices</u>		
Past breach for client suicidality	32.67	8.67
Past breach for client homicidality	30.13	9.15
Past breach for child abuse, neglect or dependent adult abuse	29.84	10.38
<u>Dichotomized Past Breaching Practices</u>		
Never breached in past (n=21)	32.67	8.67
Breached in at least one area (n=210)	30.02	9.60

Note: n = 231; Means may be misleading due to non-normality in IBC total scores.

Assessment of Probable Therapy Practices

Study participants were asked to respond to five questions presented in 6-point Likert-type format that assessed their likely therapy practices if they were to imagine themselves in the role of therapist in the study vignette presented. Each of the five questions are reported on separately because they assessed information in a manner that left them unsuitable to be summated into any meaningful total score.

The Likert-type scales for each question consisted of the following: (1) “How likely would you be to continue therapy with this client?” (1 = Very Unlikely, 6 = Very Likely); (2) “How likely would you be to talk to this client about informing their partner(s) about their HIV status?” (1 = Very Unlikely, 6 = Very Likely); (3) “How long would you continue trying to influence this client to inform partner(s)?” (1 = 0 sessions, 6 = 5 or more sessions); (4) “How likely would you be to influence this client to bring his/her partner(s) into therapy to inform him/her of the client’s HIV status?” (1 = Very Unlikely, 6 = Very Likely); (5) “How relevant is this issue with regard to therapy with this particular client?” (1 = Not at all relevant, 6 = Very relevant).

Specifically, frequency statistics showed that most respondents (n = 181, 78.4%) stated that they would be either slightly, moderately, or very likely to continue therapy with the client presented in the vignette. Thus, it is apparent that most clinicians are unlikely to end therapy with the client presented in the vignette due to the issues presented. More striking is the fact that all but one respondent stated that they would be moderately or very likely to talk with the client about informing their partner(s) about the client’s HIV status (n = 230, 99.6%), showing that clinicians are seemingly aware of ethical recommendations

about influencing clients to inform partner(s) of HIV status on their own to reduce the need of the clinician to do so in cases of possible danger and/or harm to third parties.

Further, 85% of the sample (n = 196) stated that they would spend 2 or more sessions trying to influence the client to inform his/her partner(s) of HIV status—of these, 112 (48.5%, nearly half of the total sample) stated that they would be likely to continue influencing the client for 5 or more sessions. Therefore, it is unlikely that the seriousness of this particular situation (and the prospect of having an HIV-positive client) would deter clinicians from continuing to work with the client presented in the vignette. Most of the study sample would be either slightly, moderately, or very likely to influence the client to bring his/her partner(s) into the therapy relationship to inform him/her of the client's HIV status (n = 197, 85.3%). Finally, the majority of respondents stated that they found this issue (client's HIV status and possible risk to others) to be either moderately or very relevant to therapy (n = 217, 94%). Of these, 181 respondents (78.4%) found this issue to be very relevant. A complete frequency table for these five dependent variables is presented in Table 20.

Table 20. Frequency Table for Proposed Therapy Practices questions

Question	Mean	Median	Mode	SD
How likely would you be to continue therapy with his client?	4.65	5.00	6.00	1.55
How likely would you be to talk to this client about informing their partner(s) about their HIV status?	5.93	6.00	6.00	.40
How long would you continue trying to influence this client to inform partner(s)?	4.60	5.00	6.00	1.61
How likely would you be to influence this client to bring his/her partner(s) into therapy to inform him/her of the client's HIV status?	4.83	5.00	6.00	1.42
How relevant is this issue with regard to therapy with this particular client?	5.70	6.00	6.00	.69

Note: n = 231

Assessment of Action, Important Information, and Odds of Correctness

Study respondents were asked to respond to three questions that assessed what information was most important when deciding whether to breach confidentiality, what steps they would consider if placed in a situation similar to the vignette, and what actions they would likely take in the situation.

Most of the study participants (n = 164, 70.6 %) stated that the client's level of dangerousness was most important in deciding whether to breach confidentiality; forty-six clinicians (19.7%) stated that the identifiability of the victim(s) involved was most important. Further, some participants (n = 12, 5.1%) found the state's laws about breaching to be most important, and three respondents (1.3%) answered that the client's gender was the most important factor when determining whether to breach confidentiality.

The majority of the clinicians (n = 186, 80.4%) stated that they would consult with a supervisor or colleague, consult the ethics code, and consult their state's laws about breaching confidentiality with dangerous HIV-positive clients before making a decision. Some respondents would consider initiating an involuntary commitment of the HIV-positive client (n = 10, 4.2%), and four clinicians (1.7%) stated they would do nothing in the situation.

Regarding what actions they would likely take in this situation, the majority of the sample (n = 164, 71%) would either notify the victim involved, notify public health authorities, and/or notify the local police department. Sixty-seven respondents (29%) stated that they would do nothing.

Respondents were also asked to rate the correctness of the decision that they made about breaching confidentiality in response to the study vignette by answering the following question, which was presented in 6-point Likert-type format: "What are the odds out of 100 that you have made the correct decision in this case?" (1 = 0-10, 6 = 91-100; please see Appendix B). The majority of the sample (n = 192, 83.1%) rated the odds of correctness about their decision to be either "51-70", "71-90", or "91-100". Thirty-nine clinicians (16.9%) rated the odds of their decision being correct at or below "31-50". Thus, in general, respondents were seemingly confident in the accuracy of their decision and decision-making process.

Knowledge of State Law

Study participants were also asked to list what state they currently practice in and whether their state has laws that would either permit, preclude, or require a breach of

confidentiality if an HIV-positive client is engaging in dangerous behaviors that may pose a threat of infection to unknowing third parties. Seventy-one clinicians (30.7%) reported that their state would permit a breach of confidentiality in this situation; many (n = 39, 16.9%) stated their state's laws would preclude a breach of confidentiality; thirty respondents (13%) listed that their state would require a breach of confidentiality. Of particular interest was the fact that nearly 40% of the clinician sample (n = 91) reported that they didn't know whether their state's laws permitted, precluded, or required a breach. It was beyond the scope of this project to determine the actual correctness of respondent's assessment of their own state laws, but it is clear that many clinicians were unaware of pertinent state laws regarding work with HIV-positive clients.

CHAPTER 4. DISCUSSION

This study addressed several questions: does the degree of client dangerousness or the client's gender influence decision-making about breaching confidentiality with HIV-positive clients? Does clinician stigmatization about HIV/AIDS significantly impact decision-making? To what degree would counselor knowledge about HIV transmission risks impact decisions about breaching confidentiality with an HIV-positive client if the threat of infection to a third party exists? What role does HIV-positive client contact play in the process? This section will address these questions, as well as identify strengths and weaknesses of the study and implications for future research in this area of complex clinical practice.

IBC Total Scores. First, the overall distribution of scores on the IBC is quite striking, and shows that the clinicians in this sample were overwhelmingly willing to breach confidentiality, had more certainty in their decision, perceived clients to be more dangerous, and found their perceptions of dangerousness to be very impactful on their willingness to breach (modal score = 42). The score distribution for this overall dependent variable was so skewed, in fact, that original plans for analyzing the data by Analysis of Variance (ANOVA) and means comparison procedures had to be abandoned due to lack of a normal distribution in the variable. Therefore, after receiving significant statistical consultation, the author chose to analyze the data utilizing logistic regression procedures, which focused on the ability of the predictor variables for the study (client gender and client level of dangerousness) to predict IBC total scores. It is of note that this data analysis arbitrarily dichotomized the IBC variable into "higher" and "lower" IBC scores, even though overall, the data were clearly more concentrated on the high end of the IBC scale, which suggests a tendency toward breaching confidentiality.

Level of Client Dangerousness. As was found in the author's prior research, the impact of client dangerousness (specifically with regard to the high versus low conditions) on likelihood of breaching confidentiality, certainty, and perceptions of dangerousness (IBC total scores) was the strongest finding in this study. McGuire et al. (1995) and Totten et al. (1990) found that psychologists were more willing to breach confidentiality with HIV-positive clients that were depicted as being "highly dangerous" as compared to HIV-positive clients that were depicted as being "less dangerous". A similar finding was found for this psychologist sample, as the regression analysis showed client dangerousness (high vs. low) to be a strong predictor of IBC total scores. Specifically, clinicians were more likely to have high IBC scores (which translates into higher likelihood of breaching confidentiality, more certainty about decision-making, and increased perceptions of and impact of client dangerousness on decision-making) after reading a vignette that presented an HIV-positive client participating in frequent, risky sexual behavior (never using condoms—high dangerousness condition) as compared to HIV-positive clients that engaged in frequent sexual behavior but utilized condoms "roughly half the time" (medium dangerousness condition) or "always" (low dangerousness condition).

In addition, the majority of respondents in the study reported that it would be most important to obtain information about the HIV-positive client's level of dangerousness when making decisions about whether to breach confidentiality, above both identifiability of partner(s) involved and client gender. In sum, the results suggest that the level of client dangerousness, including type and frequency of unprotected sexual behavior (and/or drug practices, although they were not specifically included in this study), is most important to

clinician's decision-making processes when the threat of HIV transmission to a third party exists.

It was previously argued that past studies (including the author's prior research) that dichotomized the variable of level of client dangerousness might be missing the actual "threshold" of allowable dangerous behaviors before clinicians felt a breach of confidentiality would be legally, ethically, and/or morally necessary. The findings of the current study would suggest that the clinicians sampled did not respond significantly differently with regard to likelihood of breaching, certainty, ratings of client dangerousness, or impact of client danger on decision-making between the low and medium dangerousness conditions, indicating that perhaps dichotomizing the variable may accurately capture this threshold. It may be argued that there could be value in attempting to find out "how much dangerous behavior is too much", thus continuing to explore the concept of client dangerousness on a continuum.

Client Gender. It was hypothesized that clinicians would have higher IBC scores when presented with a vignette depicting an HIV-positive male as compared to an HIV-positive female, based on the findings in a study by Palma and Iannelli (2002). These researchers concluded that psychology trainees showed the greatest therapeutic reactivity toward heterosexual males and the least therapeutic reactivity toward heterosexual females. This reactivity was measured by examining the change in willingness to breach confidentiality between "safe" and "unsafe" client scenarios for each client type. This hypothesis was not supported by the data in this study, as the regression analysis did not find that the variable client gender contributed to the overall model of predicting IBC total scores

above and beyond the other predictor in the model, client level of dangerousness. Thus, there was no significant association between client gender and IBC total scores.

It is of interest that medical evidence suggests that transmission rates from an HIV-positive male and female are not equal, and in actuality, HIV-positive males that are engaging in unsafe sexual practices are more dangerous than their female counterparts. Given the very high levels of knowledge about HIV, transmission risks, and myths for the respondents to this study, it is questionable why this knowledge did not directly transfer to clinicians perceiving the HIV-positive males as more dangerousness than the HIV-positive females.

Stigmatization. It was also hypothesized that clinicians with higher degrees of stigmatization toward individuals with HIV/AIDS as measured by a modified version of the AAA (Trezza, 1994) would have higher scores on the IBC as compared to clinicians with lower degrees of stigmatization. In a prior study conducted by the author, findings suggested that clinicians with higher degrees of stigmatization were more likely to breach confidentiality than those with lower levels, yet that sample of clinicians also endorsed feeling that they were quite willing to work with HIV-positive persons in a therapy setting. Crawford, Humfleet, Ribordy, Ho, and Vickers (1991) found that the psychologists in their sample consistently indicated that they did not want to provide services to HIV-positive individuals.

The majority of respondents in this sample stated that they would be likely to continue therapy with the HIV-positive clients in the presented vignettes. In addition, these clinicians also had very low levels of stigmatization, and there was very little variance in scores, with the majority of respondents' scores at the bottom end of the scale—nearly half of

the sample adamantly disagreed with all three AAA questions, which set them apart from the other respondents who were seemingly willing to entertain other responses to the questions. Further, analyses showed that stigmatization was not associated with IBC total scores, meaning that each respondent's stigmatization score had little impact on his/her willingness to breach confidentiality, degree of certainty about that decision, or perceptions of client dangerousness.

The questions utilized to detect stigmatization in the respondents were chosen based on data from the author's prior research, which showed those items to be most indicative of stigmatizing beliefs overall. Therefore, the levels of stigmatization that emerged in this study could be the result of poor item choice or actual stigmatization rates that were simply quite low for the clinicians in this study. It is hoped that the respondents in this study, who were initially chosen because they have listed themselves as "providers of health and mental health services" in the APA, and because the APA Office for Research identified this group as "most likely to have HIV-positive contact", had such low stigmatization rates. Thus, these results provide supportive evidence that those mental health workers who choose to work with the HIV-positive population are willing to challenge their own stigmatizing beliefs, and the beliefs commonly held in our society, that could be harmful or anti-therapeutic to this type of clinical work.

HIV-Related Knowledge. Another hypothesis suggested that clinicians with higher levels of HIV-related knowledge, which included practical knowledge concerning AIDS risk in three general areas: high-risk sexual and drug practices, risk reduction steps, and misconceptions regarding HIV/AIDS as measured by the AIDS Knowledge Scale (Kelly, et al., 1989) would be expected to have lower overall IBC total scores. This hypothesis was

partly supported by prior research conducted by Simone and Fulero (2001) who found that higher levels of knowledge led to lower stigmatization scores and thus, lower likelihood of breaching confidentiality.

The respondents in this study had very high levels of HIV-related knowledge, and thus the data on the AKS were strongly skewed to be concentrated at the upper end of the scale. The results of the regression analysis did not support the above hypothesis. Although HIV-related knowledge was found to be significantly associated with IBC total scores, those respondents with high knowledge scores were roughly 80% more likely to also have high IBC scores than those with low knowledge scores.

Further, clinician knowledge and stigmatization were found to have no association, meaning that respondents' amount of HIV-related knowledge did not have an impact on stigmatization scores, and vice versa. Overall, the respondents were very knowledgeable about HIV transmission risks and did not overly endorse myths, and had very low levels of stigmatizing beliefs about HIV/AIDS-infected individuals. It is of interest that despite these findings, the sample, overall, reported high willingness to breach confidentiality with clients presented in the vignettes (as determined by IBC total scores).

HIV-Positive Client Contact. Additionally, it was hypothesized that clinicians who had experienced contact with HIV-positive clients in the work setting would have lower IBC scores. Totten et al. (1990) found that psychologists who had experienced direct contact with HIV-positive persons were less likely to breach confidentiality as compared to those who had not experienced such contact. Contact in this study was measured by asking respondents to assess the number of HIV-positive clients they had seen in their clinical practice in the last three years, as well as the percentage of their current clinical caseload that is HIV-positive.

The above hypothesis was not supported, as interestingly, crosstabulation procedures found no significant associations between prior and current contact and IBC total scores, suggesting that contact does not impact willingness to breach confidentiality, certainty, or perceptions of dangerousness. In addition, contact was not found to be associated with AKS or AAA total scores, suggesting that having had prior experience with the HIV-positive population does not significantly alter knowledge or stigmatization scores. It is important to note that overall, the clinicians in this study had very high levels of HIV-related knowledge and very low levels of stigmatization, regardless of whether they had experienced clinical contact with HIV-positive clients, and this lack of variance between participants most likely significantly impacted these associations. This finding may also be explained in that persons with higher levels of HIV-related knowledge and lower levels of stigmatization may be more willing to take on HIV-positive clients in the first place.

The impact of prior contact with HIV-positive clients was most striking when assessing ratings of vignette similarity to clinician experiences in clinical practice. There was a significant association between the two variables, with clinicians who had experienced HIV-positive client contact being four times more likely to rate the vignettes as similar to their experiences as compared to those who had not experienced HIV-positive client contact in a clinical setting. As was stated previously, this result seems to provide evidence that the vignettes accurately captured facets of real world experience that were familiar to clinicians who had worked clinically with this population.

Perceptions of Information in Vignette. Respondents were asked to state whether they felt enough information was contained in the presented vignette to make a decision about whether to breach confidentiality, and this perception was associated with IBC total

scores. Clinicians who stated that there wasn't enough information in the vignettes to make such a decision were about 90% less likely to have high IBC scores as compared to their counterparts who stated that there was enough information contained in the vignette to make a decision. This is a logical finding, and suggests that willingness to breach, certainty about the decision, and even perceptions of dangerousness were significantly impacted if the clinician felt more information was needed to assist them in the decision-making process.

Impact of Past Breaching on IBC scores. Interestingly, there was no association between past breaching of confidentiality in cases of apparent client suicidality, homicidality, and/or child abuse, neglect, or dependent adult abuse and IBC total scores. These results suggest that having made decisions in the past to breach confidentiality doesn't necessarily indicate a tendency to breach confidentiality overall across different domains. Examination of the means between groups that had never breached and those that had breached in at least one of the above areas suggests that clinicians who had never breached in the past had higher IBC scores (which thus indicate a greater willingness to breach confidentiality) than those who had breached in prior circumstances. However, because of the nature of the data analysis utilized for this study, it is not known if this is a significant mean difference between the two groups and therefore should be interpreted with caution.

Strengths and Weaknesses

The response rate goal of 50% was not achieved after two mailings; however, this sample consisted of an ample number of participants from each of the geographical regions as determined by the APA Office for Research. The percentage of questionnaires that were sent to each geographical region was very similar to the percentage that were received from

each region, resulting in a geographically representative sample of licensed psychologists from the United States. It should be noted that there is the possibility of selection bias in this sample, as people who are less reactive in general to issues regarding HIV/AIDS and sexual behavior might have been more likely to respond to this survey.

Furthermore, the sample included nearly equal numbers of male and female psychologists, and respondents averaged 20 years of clinical experience, which are definite strengths of this study. By comparing the characteristics of the psychologists in this study to those for all currently practicing APA members (APA, 2002), the sample was determined to be representative in terms of gender of participants; however, the generalizability of these results to a broad range of ethnic groups is uncertain and should be exercised with great caution, as the respondents were also overwhelmingly Caucasian.

Nearly half of the psychologists sampled had experienced no prior contact with HIV-positive clients, and thus the vignettes presented to them were not at all similar to situations they have encountered in their general therapy practice. However, it could also be viewed that more than half of the psychologists in this study have experienced contact with HIV-positive clients, and therefore, some generalizability of results to clinicians who work with HIV-positive individuals can be assumed. The amount of HIV-positive client contact experienced by clinicians was a similar concern for the author's prior thesis research, and continues to beg the question, "who works most readily with the HIV-positive population?" if not these experienced clinicians of health and mental health services?

Bing et al. (2001) and Burnam et al. (2001) explain that the numbers of HIV-positive individuals that need psychiatric services continues to rise, as there are a variety of psychological ailments and problems that are often concurrent with being HIV-positive,

which include, but are not limited to, suicidality, depression, anxiety, relationship discord, and fears of death. It is quite possible that a majority of HIV-positive persons receive services from mental health providers that are not Ph.D.'s (social workers, master's level clinicians), or more likely, may not be receiving mental health services at all. These persons, who have struggled with the physical, emotional, and financial consequences of having a terminal illness such as HIV, may not have the affluence to seek out a private psychotherapy practitioner (who represented a large majority of the current study's sample). It may be beneficial for future research to consider whether HIV-positive persons are receiving (and maybe more importantly, have access to) mental health care that would be appropriate for the degree of psychological disturbance they often experience.

Implications of Results

It is clear that HIV-positive clients' level of dangerousness, which may include sexual behavior (type and frequency) as well as intravenous drug behavior, is undoubtedly most important to the ethical decision-making process of clinicians who may work with these clients in a clinical setting, especially when the threat of HIV-infection to a third party exists. Further, the results of this study suggest that the gender of the client is irrelevant despite that medical research suggests that HIV transmission rates are not equal across males and females.

Implications of results from the author's prior thesis research suggested that mental health professionals who have the opportunity to work with HIV-positive individuals should evaluate their own attitudes before determining their willingness and/or ethical readiness to do so. Because societal fears and stigmas about HIV and AIDS tend to evoke a clinician's

beliefs, biases, and fears, not only about HIV/AIDS, but also about death, alternate lifestyles, and sexual behaviors, it continues to be imperative that psychologists are open to evaluating their own belief systems in advance to engaging in this type of work. There is substantial likelihood of harm to the HIV-positive therapy client and the therapeutic relationship as a result of an unaccepting, unwelcoming, or invalidating therapeutic environment.

Interestingly, the clinicians in this study were very knowledgeable overall about HIV and transmission risks, and also reported very low levels of endorsement of stigmatizing beliefs about the population. These research findings are supportive of continued efforts that are being made by agencies and individual clinicians to evolve with the field, as the likelihood of working with an HIV-positive person in a clinical setting continues to increase (Bing, et al., 2001). It is important to note, however, that for the respondents of this study, higher knowledge scores were associated with increased willingness to breach confidentiality, and thus, it is important to determine whether this willingness is based in situations that actually warrant a breach of confidentiality (whether based on ethical principles and/or state law), and is not due to overprediction of dangerousness or infectiousness of any particular HIV-positive client.

What seems to be most difficult for clinicians continues to be the application of *Tarasoff* principles to cases involving dangerous HIV-positive clients. The application of these principles to such situations can be very ambiguous, and differs by jurisdiction, as indicated by Chenneville (2000), and there have been arguments made on both sides of this ethical fence about whether *Tarasoff* even applies. This study attempted to gain some insight into clinician's assessments of what action (if any) their own state laws would permit, require, or preclude, and it was quite clear that many of the respondents simply didn't know

what the laws or statutes of their practice state allowed. For practicing mental health services providers, it seems important to seek education about current law, statutes, and policies, especially given the vast numbers of persons in the HIV-positive population who are in need of psychiatric services.

Furthermore, psychologists rarely have access to clear-cut ethical guidelines to examine when they encounter a situation where an HIV-positive client is posing a threat of infection to a third party, which inevitably leads to confusion and uncertainty about what appropriate steps should be taken. Interestingly, the APA has avoided the issue of application of “duty to protect” or “duty to warn” principles to dangerous HIV-positive clients in each of the revisions of the ethics code since HIV/AIDS came on to the scene in the 1980s. Indeed, there are consequences on both sides of this controversial issue, including possible harm to the client, possible harm to any involved third parties, and harm to the therapist-client relationship if breaches of confidentiality are not negotiated carefully. Further research could be conducted to help in the development of evolving guidelines to aid the clinicians’ decision-making in the face of the inevitable ambiguity that accompanies these cases.

Implications for Future Research

This study attempted to provide information about the impact of client gender and client dangerousness on clinician decision-making regarding breaching confidentiality with HIV-positive clients. Previous studies (Totten et al., 1990; McGuire et al., 1995; Crawford & Scott, 2002) utilized client dangerousness as a dichotomous variable, when it is clear that level of dangerousness could be better understood as existing on a continuum, as it is not known exactly at what point clients are considered dangerous enough to warrant breaches of

confidentiality. This study attempted to present the client's level of dangerousness in this latter fashion, although the variable was indeed split into three, distinct categories. Future research could be conducted to further capture the facets of dangerousness that are most important in making decisions about breaching confidentiality with HIV-positive persons (i.e., number of partners, level of dangerous behavior, or level of willingness to disclose HIV status to partners).

In addition, it should be noted that the IBC does contain two items pertaining to client danger, which is one of the predictor variables. Thus, this variable was manipulated and then assessed utilizing the main dependent variable for the study. In future investigations, it would be prudent to create a revised IBC that does not contain items regarding client danger.

Further, an aspect of this study that would warrant future investigation involves the clinicians' knowledge about whether their state's laws permit, require, or preclude a breach of confidentiality when working with an HIV-positive client that may be posing a threat of infection to a third party. Surprisingly, a large proportion of the sample for this study did not know what their state laws would allow in cases such as this. Thus, future research could investigate accuracy of clinician knowledge about state law, and impacts on decisions to breach, comfort with breaching, and levels of certainty within decision-making.

Finally, on a data analysis note, the Index of Breaching Confidentiality (IBC) could be further analyzed with confirmatory or second-order factor analysis to attempt to provide more evidence of a one-factor structure in preparation for publication of the results to a major psychological journal. In addition, further exploration of the data might involve a more inclusive, omnibus logistic regression analysis where multiple other predictors would be included.

Overall, the difficulties of attempting to accurately capture the complexity of clinicians' ethical decision-making with a paper and pencil questionnaire are evident within this study. In addition, there are limitations in utilizing vignettes to obtain a behavioral cross-section of a sequential decision-making process that would be a real-time clinical endeavor for the involved clinician. However, many respondents felt that the vignettes portrayed facets of their real-world experiences with HIV-positive clients, and thus, this study does provide useful, generalizable information that can be utilized to further understand this challenging area of clinical work.

APPENDIX A: VIGNETTES

Please read the following case description and place yourself in the role of a counselor working with this individual.

High dangerousness, male

John is an HIV-positive male and has been in counseling for four sessions. John's HIV status is confirmed to be accurate. He confides in his therapist that he has been engaging in frequent sexual behavior with a partner known to the therapist. He almost never uses condoms. John knows the risks of infecting others through sexual contact, sharing needles, or donating blood, but is unwilling to share his diagnosis with the person he is possibly putting at risk. John is also aware of the possible legal implications of his behavior. He plans on continuing to engage in these sexual behaviors.

High dangerousness, female

Jane is an HIV-positive female and has been in counseling for four sessions. Jane's HIV status is confirmed to be accurate. She confides in her therapist that she has been engaging in frequent sexual behavior with a partner known to the therapist. She almost never uses condoms. Jane knows the risks of infecting others through sexual contact, sharing needles, or donating blood, but is unwilling to share her diagnosis with the person she is possibly putting at risk. Jane is also aware of the possible legal implications of her behavior. She plans on continuing to engage in these sexual behaviors.

Medium dangerousness, male

John is an HIV-positive male and has been in counseling for four sessions. John's HIV status is confirmed to be accurate. He confides in his therapist that he has been engaging in frequent sexual behavior with a partner known to the therapist. He uses condoms roughly half of the time. John knows the risks of infecting others through sexual contact, sharing needles, or donating blood, but is unwilling to share his diagnosis with the person he is possibly putting at risk. John is also aware of the possible legal implications of his behavior. He plans on continuing to engage in these sexual behaviors.

Medium dangerousness, female

Jane is an HIV-positive female and has been in counseling for four sessions. Jane's HIV status is confirmed to be accurate. She confides in her therapist that she has been engaging in frequent sexual behavior with a partner known to the therapist. She uses condoms roughly half of the time. Jane knows the risks of infecting others through sexual contact, sharing needles, or donating blood, but is unwilling to share her diagnosis with the person she is possibly putting at risk. Jane is also aware of the possible legal implications of her behavior. She plans on continuing to engage in these sexual behaviors.

Low dangerousness, male

John is an HIV-positive male and has been in counseling for four sessions. John's HIV status is confirmed to be accurate. He confides in his therapist that he has been engaging in frequent sexual behavior with a partner known to the therapist. He almost always uses condoms. John

knows the risks of infecting others through sexual contact, sharing needles, or donating blood, but is unwilling to share his diagnosis with the person he is possibly putting at risk. John is also aware of the possible legal implications of his behavior. He plans on continuing to engage in these sexual behaviors.

Low dangerousness, female

Jane is an HIV-positive female and has been in counseling for four sessions. Jane's HIV status is confirmed to be accurate. She confides in her therapist that she has been engaging in frequent sexual behavior with a partner known to the therapist. She almost always uses condoms. Jane knows the risks of infecting others through sexual contact, sharing needles, or donating blood, but is unwilling to share her diagnosis with the person she is possibly putting at risk. Jane is also aware of the possible legal implications of her behavior. She plans on continuing to engage in these sexual behaviors.

Imagine you are a counselor working with this client. Do you believe there is enough information to make a decision regarding breaking confidentiality in this case?

_____ NO _____ YES

If no, please indicate what further information you would like to have: _____

_____.

Whether you answered yes or no, please continue with the following questions, making choices based on your assessment of the information that is given in the above case.

APPENDIX B: DEPENDENT VARIABLE QUESTIONNAIRE

1) Please indicate how similar the preceding case is to situations you've encountered in practice. (Circle only one):

Very Similar	Moderately Similar	Slightly Similar	Slightly Dissimilar	Moderately Dissimilar	Very Dissimilar
--------------	--------------------	------------------	---------------------	-----------------------	-----------------

2) Imagine you are working with this client. What is the likelihood you would breach confidentiality and warn the involved third parties of the risk of HIV transmission? (Circle only one):

Very Unlikely	Moderately Unlikely	Slightly Unlikely	Slightly Likely	Moderately Likely	Very Likely
---------------	---------------------	-------------------	-----------------	-------------------	-------------

3) What are the odds out of 100 that you would breach confidentiality and warn the involved third parties of the risk of HIV transmission? (Circle only one):

0-10	11-30	31-50	51-70	71-90	91-100
------	-------	-------	-------	-------	--------

4) How probable is it that you would breach confidentiality to third parties in this case? (Circle only one):

Not at all Probable	Moderately Improbable	Slightly Improbable	Slightly Probable	Moderately Probable	Very Probable
---------------------	-----------------------	---------------------	-------------------	---------------------	---------------

5) How certain are you that there is a duty to protect a third party(s) in this case after four sessions? (Circle only one):

Definitely do not have a duty to warn	Probably do not have a duty to warn	May not have a duty to warn	May have a duty to warn	Probably have a duty to warn	Definitely have a duty to warn
---------------------------------------	-------------------------------------	-----------------------------	-------------------------	------------------------------	--------------------------------

6) How sure are you that there is a duty to protect a third party(s) in this case? (Circle only one):

Not at all Sure (0-10%)	Moderately Unsure (11-30%)	Slightly Unsure (31-50%)	Slightly Sure (51-70%)	Moderately Sure (71-90%)	Very Sure (91-100%)
----------------------------	-------------------------------	-----------------------------	---------------------------	-----------------------------	------------------------

7) What are the odds out of 100 that you have made the correct decision in this case? (Circle only one):

0-10	11-30	31-50	51-70	71-90	91-100
------	-------	-------	-------	-------	--------

8) How likely would you be to continue therapy with this client? (Circle only one):

Very Unlikely	Moderately Unlikely	Slightly Unlikely	Slightly Likely	Moderately Likely	Very Likely
---------------	---------------------	-------------------	-----------------	-------------------	-------------

9) How likely would you be to talk to this client about informing their partner(s) about their HIV status? (Circle only one):

Very Unlikely	Moderately Unlikely	Slightly Unlikely	Slightly Likely	Moderately Likely	Very Likely
---------------	---------------------	-------------------	-----------------	-------------------	-------------

10) How long would you continue trying to influence this client to inform partner(s)? (Circle only one):

0 sessions	1 session	2 sessions	3 sessions	4 sessions	5 or more sessions
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11) How likely would you be to influence this client to bring his/her partner(s) into therapy to inform him/her of the client's HIV status? (Circle only one):

Very Unlikely	Moderately Unlikely	Slightly Unlikely	Slightly Likely	Moderately Likely	Very Likely
---------------	---------------------	-------------------	-----------------	-------------------	-------------

12) How relevant is this issue with regard to therapy with this particular client? (Circle only one):

Not at all Relevant	Moderately Irrelevant	Slightly Irrelevant	Slightly Relevant	Moderately Relevant	Very Relevant
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13) How would you rate the level of the client's dangerousness in this vignette? (Circle only one):

Very Safe	Moderately Safe	Slightly Safe	Slightly Dangerous	Moderately Dangerous	Very Dangerous
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14) To what extent does this client's level of dangerousness have an impact on your willingness or unwillingness to breach confidentiality? (Circle only one):

Very Weak Impact	Moderately Weak Impact	Slightly Weak Impact	Slightly Strong Impact	Moderately Strong Impact	Very Strong Impact
------------------	------------------------	----------------------	------------------------	--------------------------	--------------------

15) What was most important to you when deciding whether to breach confidentiality? (Please rank order from 1-3, with 1 being most important):

- _____ Level of dangerousness of the client
 _____ Identifiability of the victim(s) involved
 _____ Gender of the client
 _____ Other (please indicate): _____

16) What steps would you consider if placed in this type of situation? (Check all that apply):

- _____ Consult with supervisor or colleague
 _____ Consult ethics code
 _____ Consult my state's laws
 _____ Initiate involuntary commitment of the client
 _____ Do nothing

17) What actions would you take in this situation? (Check all that apply):

- Notify victim(s) involved
 Notify Police department
 Notify Public Health authorities
 Do nothing

18) In what state do you practice? _____

19) Would your state's laws:

- Permit a breach of confidentiality
 Preclude a breach of confidentiality
 Require a breach of confidentiality
 I don't know

20) Would you feel a moral obligation to breach confidentiality in this case?

- Yes
 No
If so, why?
-

21) Would you feel an ethical obligation to breach confidentiality in this case?

- Yes
 No
If so, why?
-

22) Have you ever breached confidentiality in cases of apparent child abuse, neglect or dependent adult abuse?

- Yes
 No

23) Have you ever breached confidentiality in situations involving a suicidal client?

- Yes
 No

24) Have you ever breached confidentiality in situations involving a homicidal client?

- Yes
 No

APPENDIX C: ATTITUDES ABOUT AIDS SCALE (AAA)

Please respond to the following statements as carefully and accurately as you can by circling your choice:

- 1) Teachers who have AIDS should be restricted from teaching.

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
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- 2) To protect other students, students who have AIDS should be kept out of the classrooms.

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
----------------------	----------	-------------------------------	-------	-------------------

- 3) The high cost of treating AIDS patients is unfair to other people in need.

Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
----------------------	----------	-------------------------------	-------	-------------------

APPENDIX D: AIDS KNOWLEDGE SCALE (AKS)

Some of the following statements are true and accurate, while others are false and inaccurate. Please circle either true or false for each of the following items. Do not skip any questions.

1) The AIDS virus does not penetrate unbroken skin.

True	False
-------------	-------

2) Sharing toothbrushes and razors can transmit the AIDS virus.

True	False
-------------	-------

3) People carrying the AIDS virus generally feel quite ill.

True	False
------	--------------

4) Vaginal intercourse carries high risk for AIDS virus transmission.

True	False
-------------	-------

5) Healthy persons in AIDS risk groups should not donate blood.

True	False
-------------	-------

6) It is more important to take precautions against AIDS in large cities than in small cities.

True	False
------	--------------

7) A positive result on the AIDS virus antibody test can occur even for people who do not carry the virus.

True	False
-------------	-------

8) Most present cases of AIDS are due to blood transfusions that took place before 1984.

True	False
------	--------------

9) A great deal is now known about how the AIDS virus is transmitted.

True	False
-------------	-------

10) Donating blood carries no AIDS risk for the donor.

True	False
-------------	-------

Note: Correct answers are displayed in bold.

APPENDIX E: DEMOGRAPHIC QUESTIONNAIRE

Please tell us about yourself by answering the following:

1. Gender: Male Female
2. Ethnicity: _____
3. Highest degree achieved (check only one):
 Ph.D. Psy.D. M.D. Ed. D.
 Other (Specify) _____
4. How many years have you been a practicing mental health professional?
_____ Years
5. Check the primary setting in which you practice (check only one):
 Community Mental Health Center General Medical Center
 Psychiatric Medical Center Private or Group Practice
 VA Medical Center Other (Specify) _____

Please tell us about your informed consent practices by answering the following:

6. Please estimate how often you or your agency provide clients with information regarding confidentiality (circle only one):

Never (go to #10)	Rarely	Sometimes	Often	Always
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7. In general, what information regarding confidentiality is given to clients? (Check only one):

- Clients are informed that everything is confidential.
- Clients are informed that there may be limits to confidentiality (without specifying what those limits might be).
- Clients are informed that confidentiality may be breached in cases of (check all that apply):
- Threatened harm to self
 - Threatened harm to others
 - Suspected child abuse
 - Court subpoena
 - Possible infectious disease transmission
 - Other (specify) _____

8. Typically, how is this information regarding confidentiality provided to clients? (Circle only one):

Verbally only	Written only	Both verbally and written
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9. Typically, when do clients first receive this information? (Check only one):
- _____ Prior to first counseling/therapy or assessment session.
 _____ During first counseling/therapy or assessment session.
 _____ After first counseling/therapy or assessment session
- (If you checked "after first counseling session", please also mark when you most typically give this information to clients---please read through all choices and then check only one):
- _____ When I become aware of client issues that may potentially necessitate breaking confidentiality.
 _____ When circumstances necessitate that I break confidentiality.
 _____ Not until the client(s) brings up the issue of confidentiality.
 _____ Other (Specify) _____

Please tell us about your past practices by answering the following questions:

10. In the past three years, approximately how many clients have you worked with that were HIV-positive?
 _____ Males _____ Females
11. Please estimate the percentage of clients on your current caseload that are HIV-positive.
 _____ % Male _____ % Female
12. In the past three years, how many clients have disclosed information that you believe necessitated protecting another person or agency? _____ Of these, in how many cases did you ultimately discharge a duty to protect a third person? _____
13. Please estimate the percentage of your client load for which the above is an issue:
 _____ %
14. Please indicate which of the following measures you have taken, if any, in situations where you have determined that it is necessary to protect a possible third party from HIV infection:
- _____ Initiated involuntary commitment procedure for your client
 _____ Consulted with clinical supervisor or colleague
 _____ Summoned Public Health officials to intervene
 _____ Have not encountered such a situation
 _____ Other _____

IF YOU WISH, PLEASE USE THE SPACE BELOW FOR COMMENTS

Thank you for your participation in this study. Please (1) return this survey in the enclosed postage-paid envelope and (2) return the response card separately from the survey.

Correspondence may be sent to: Brenda C. Crawford, M.S. or Norman Scott, Ph.D.
Iowa State University
Psychology Department
W112 Lagomarcino Hall
Ames, Iowa 50010

APPENDIX F: STUDY COVER LETTER

IOWA STATE UNIVERSITY

Psychology Department
W112 Lagomarcino Hall
Ames, Iowa 50011
(515) 294-1742

August 29, 2003

Dear Colleague:

We are requesting your participation in a research study of psychologists' reactions to challenging clinical decisions. Specifically, we are interested in your practices and opinions regarding confidentiality and the responsibility to warn third parties in the event of possible infectious disease transmission by a client. A decision to warn potential victims involves controversial ethical and legal issues. As a licensed practitioner of health and mental health services, you have been selected to receive this survey because you are in a unique position to provide an understanding of this important area of clinical decision-making.

This research project has been reviewed and approved by the Iowa State University Human Subjects Review Board and meets applicable ethical standards and guidelines. If you have any questions about the rights of research subjects or research-related injury, please contact the Human Subjects Research Office, 2810 Beardshear Hall, (515) 294-4566; or Diane Ament, the Research Compliance Officer, Office of Research Compliance, 2810 Beardshear Hall, (515) 294-3115; dament@iastate.edu. Your completion and return of the enclosed anonymous questionnaire will constitute informed consent for participation in this study.

All data and records will be kept confidential to the extent permitted by applicable laws and regulations. In order to assure anonymity, please do not put your name or any other identifying information on the questionnaire. Completion of this survey will take approximately fifteen minutes. We recognize that you have many demands on your time, but hope that you will assist us in this study. We believe that your clinical experiences, practice expertise, and seasoned judgment are critical in gaining understanding in this complex area of practice. We value and need your cooperation in this endeavor.

There is no direct benefit to you for participating in this study. However, your unique perspective will add to our understanding of a very complex area of clinical practice. In recognition of your time and effort in completing this survey, we will be giving away two \$50 gift certificates to a national bookstore chain. This will be done by choosing two response cards from those returned by the date listed below. The numbered response cards will allow us to link the name of participants to their return of the response card only, not to the individual questionnaires, and thus allow us to choose the gift certificate winners. The odds of winning will be approximately 2 in 720. The drawing will be held the first week of October.

A response card, to be returned *separately* from the survey, is included in this packet to aid us in sending additional surveys to those individuals who did not respond to this first request. It also serves to identify those individuals who would like to receive a copy of the results of this study, and as an indication of your interest in participation in the following endeavor. The response card is coded with a number that does not appear on the survey or the return envelope.

After completing the survey, please mail it in the postage-paid envelope provided. In addition, please return the response card separately so that your anonymity is assured. If you would like a summary of the results of this research, please check the appropriate box on the response card. If you choose not to participate, you do not need to return any of the materials. However, if you do not wish to receive follow-up mailings regarding this study, please return the response card indicating this by checking the appropriate box. If you have any questions, feel free to contact me via email, or Norman A. Scott, Ph.D. at (515) 294-1509. **We would appreciate a response by September 19, 2003.**

We appreciate your cooperation and value your responses.

Sincerely,

Brenda Crawford, M.S.
Doctoral Candidate
firepowr@iastate.edu

Norman A. Scott, Ph.D.
Associate Professor
nascott@iastate.edu

APPENDIX G: TABLES

Table 4. Values from the rotated factor matrix (Initial Factor Analysis) for dependent variable items

Item	Factor loadings			
	1	2	3	4
1) Imagine you are working with this client. What is the likelihood you would breach confidentiality and warn the involved third parties of the risk of HIV transmission? (2)*	.91	.12	.11	.00
2) What are the odds out of 100 that you would breach confidentiality and warn the involved third parties of the risk of HIV transmission? (3) *	.91	.00	.18	.00
3) How probable is it that you would breach confidentiality to third parties in this case? (4)*	.88	.11	.12	.00
4) How certain are you that there is a duty to protect a third party(s) in this case after four sessions? (5)*	.90	.00	.11	.00
5) How sure are you that there is a duty to protect a third party(s) in this case? (6)*	.82	.00	.00	.00
6) What are the odds out of 100 that you have made the correct decision in this case? (7)	.40	-.30	.53	.00
7) How likely would you be to continue therapy with this client? (8)	.00	.00	.00	.91
8) How likely would you be to talk to this client about informing their partner(s) about their HIV status? (9)	.00	.18	.88	.00
9) How long would you continue trying to influence this client to inform partner(s)? (10)	-.50	.36	.00	.39
10) How likely would you be to influence this client to bring his/her partner(s) into therapy to inform him/her of the client's HIV status? (11)	.15	.68	.00	-.18
11) How relevant is this issue with regard to therapy with this particular client? (12)	.19	.66	.17	.17
12) How would you rate the level of the client's dangerousness in this vignette? (13)*	.53	.18	.19	-.26
13) To what extent does this client's level of dangerousness have an impact on your willingness or unwillingness to breach confidentiality? (14)*	.72	.11	-.11	.00

Note: Items with (*) were included in the Index for Breaching Confidentiality (IBC) and were included in the second factor analysis. The number listed after each item corresponds to its number on the study questionnaire. Factor loadings above .30 are in bold.

Table 5. Communalities for 1st Factor Analysis for Dependent Variable items 2-14

Item	Initial	Extraction
Likely of breach (2)	1.00	.86
Odds of breach (3)	1.00	.86
Probability of breach (4)	1.00	.80
Certainty of duty (5)	1.00	.82
Sure of duty (6)	1.00	.68
Odds of correctness (7)	1.00	.53
Likely to continue therapy (8)	1.00	.84
Likely to talk to client to inform partner (9)	1.00	.81
Length of influence to inform (10)	1.00	.54
Likely to bring partner to therapy (11)	1.00	.52
Issue relevance to therapy (12)	1.00	.52
Clinician rating of client danger (13)	1.00	.42
Impact of danger on breaching (14)	1.00	.54

Note: Extraction Method—Principal Components Analysis. Number in parentheses corresponds to item number on questionnaire.

Table 6. Intercorrelation matrix for dependent variables used in factor analysis

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Dependent Variable												
1. Likely of breach												
2. Odds of breach	.90**											
3. Probability of breach	.85**	.82**										
4. Certainty of duty	.83**	.82**	.79**									
5. Sure of duty	.67**	.69**	.67**	.74**								
6. Odds of correctness	.37**	.41**	.33**	.30**	.32**							
7. Likely to continue therapy	-.04	-.04	.02	.02	.01	.03						
8. Likely to have client inform partner	.10	.14*	.14*	.15*	-.01	.16*	.02					
9. Length of influence to inform	-.36**	-.40**	-.36**	-.41**	-.35**	-.24**	.15*	.00				
10. Likely to bring partner to therapy	.19**	.14*	.19**	.17*	.17**	.00	-.03	.05	-.01			
11. Issue relevance to therapy	.25**	.21*	.21**	.18**	.21**	.05	.05	.12	.05	.14*		
12. Clinician rating of vignette danger	.47**	.49**	.42**	.44**	.45**	.24**	-.10	.10	-.27**	.14*	.20**	
13. Impact of danger on breaching	.62**	.59**	.59**	.60**	.48**	.17**	-.05	.01	-.28**	.12	.16**	.35**

Note: n = 231. (*) = significant at (.05) level; (**) = significant at (.01) level.

Table 7. Values from the factor matrix (Second Factor Analysis) for dependent variable items included on the Index of Breaching Confidentiality (IBC)

Item	Factor loadings
1) Imagine you are working with this client. What is the likelihood you would breach confidentiality and warn the involved third parties of the risk of HIV transmission? (2)	.93
2) What are the odds out of 100 that you would breach confidentiality and warn the involved third parties of the risk of HIV transmission? (3)	.93
3) How probable is it that you would breach confidentiality to third parties in this case? (4)	.90
4) How certain are you that there is a duty to protect a third party(s) in this case after four sessions? (5)	.91
5) How sure are you that there is a duty to protect a third party(s) in this case? (6)	.81
6) How would you rate the level of the client's dangerousness in this vignette? (13)	.59
7) To what extent does this client's level of dangerousness have an impact on your willingness or unwillingness to breach confidentiality? (14)	.72

Note: The number listed after each item corresponds to its number on the study questionnaire. Factor loadings above .30 are in bold.

Table 8. Communalities for 2nd Factor Analysis of Dependent Variables 2-6 and 13-14

Item	Initial	Extraction
Likely of breach (2)	1.00	.87
Odds of breach (3)	1.00	.86
Probability of breach (4)	1.00	.81
Certainty of duty (5)	1.00	.83
Sure of duty (6)	1.00	.66
Clinician rating of client danger (13)	1.00	.34
Impact of danger on breaching (14)	1.00	.52

Note: Extraction Method—Principal Components Analysis. Number in parentheses corresponds to item number on questionnaire.

Table 12. Intercorrelation matrix for independent and dependent variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
<u>Dependent Variable</u>												
1. Client gender	1.00											
2. Level of dangerousness	-.04	1.00										
3. Enough info	.06	-.17*	1.00									
4. Similarity to practice	.13*	-.01	.03	1.00								
5. Likely of breach	.05	.25**	-.44**	-.09	1.00							
6. Odds of breach	.05	.20**	-.45**	-.09	.90**	1.00						
7. Probability of breach	.05	.19**	-.43**	-.04	.85**	.82**	1.00					
8. Certainty of duty	.09	.19**	-.38**	-.08	.83**	.82**	.79**	1.00				
9. Sure of duty	.07	.13	-.35**	-.02	.67**	.69**	.67**	.74**	1.00			
10. Odds of correctness	-.06	.07	-.27**	.17*	.37**	.41**	.33**	.30**	.32**	1.00		
11. Likely to continue therapy	-.00	-.08	-.07	.00	-.04	-.04	.02	.02	.01	.03	1.00	
12. Likely to have client inform partner	-.01	.07	-.06	-.01	.10	.14*	.14*	.15*	-.01	.16*	.02	1.00
13. Length of influence to inform	-.02	-.02	.09	.09	-.36**	-.40**	-.36**	-.41**	-.35**	-.24**	.15*	.00
14. Likely to bring partner to therapy	.08	.01	-.06	.03	.19**	.14*	.19**	.17*	.17**	.00	-.03	.05
15. Issue relevance to therapy	-.01	.02	-.11	-.01	.25**	.21*	.21**	.18**	.21**	.05	.05	.12
16. Clinician rating of vignette danger	.04	.20**	-.29**	-.07	.46**	.49**	.42**	.44**	.45**	.24**	-.10	.10
17. Impact of danger on breaching	.00	.17**	-.27**	-.03	.62**	.59**	.59**	.60**	.48**	.17**	-.05	.01
18. Moral obligation to breach	-.10	-.13	.26**	.02	-.56**	-.54**	-.51**	-.50**	-.45**	-.19**	.12	-.03
19. Ethical obligation to breach	-.12	-.19**	.35**	.06	-.72**	-.70**	-.66**	-.69**	-.58**	-.19**	.08	-.11
20. Ever breached for abuse	.01	.09	-.02	-.14*	.12	.06	.08	.06	.05	.02	-.02	.02
21. Ever breached for suicide	-.01	.04	-.03	-.17**	.01	.04	.02	.05	.03	-.12	.04	.02
22. Ever breached for homicide	-.04	-.01	.03	-.28**	-.02	-.01	-.01	-.01	-.05	-.08	.04	.06
23. Total score on AAA	-.03	.14*	-.02	-.10	.05	.06	.01	.06	-.03	-.03	-.09	.02
24. Total score on AKS	-.13	-.03	-.12	-.12	.06	.03	.02	.01	.08	.04	.03	-.04
25. Contact--# Males in last 3 yrs	-.15*	.04	-.06	.25**	-.07	-.10	-.10	-.15*	-.12	.09	.13	.04
26. Contact--# Females in last 3 yrs	-.14*	-.05	.04	.16*	-.11	-.13*	-.10	-.11	-.01	-.10	.11	.04
27. Contact--%HIV+ Male on caseload	-.06	.02	.00	.31**	-.02	-.05	-.08	.01	.02	.02	.02	.04
28. Contact--%HIV+ Female on caseload	-.10	-.05	.07	.11	-.09	-.10	-.07	-.06	.02	-.14*	.08	.03
29. IBC total score	.06	.22**	-.45**	-.07	.93**	.93**	.90**	.91**	.82**	.37**	-.02	.11

Note: n = 231. (*) = significant at (.05) level; (**) = significant at (.01) level.

Table 12. (cont.)

	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.
<u>Dependent Variable</u>												
13. Length of influence to inform	1.00											
14. Likely to bring partner to therapy	-.01	1.00										
15. Issue relevance to therapy	.05	.14*	1.00									
16. Clinician rating of vignette danger	-.27**	.14*	.20**	1.00								
17. Impact of danger on breaching	-.28**	.12	.16**	.35**	1.00							
18. Moral obligation to breach	.21**	-.21**	-.23**	-.42**	-.47**	1.00						
19. Ethical obligation to breach	.30**	-.18**	-.16**	-.45**	-.56**	.70**	1.00					
20. Ever breached for abuse	.09	.02	-.04	.11	.18**	-.08	-.18**	1.00				
21. Ever breached for suicide	.13*	-.01	.00	-.03	.06	-.01	-.05	.35**	1.00			
22. Ever breached for homicide	.11	-.05	.03	-.01	.02	.05	.01	.15*	.28**	1.00		
23. Total score on AAA	.00	.04	-.11	.14*	.06	-.14*	-.07	.07	.05	-.19**	1.00	
24. Total score on AKS	-.03	.05	-.03	-.06	-.04	-.04	-.04	-.02	.01	.02	.05	1.00
25. Contact--# Males in last 3 yrs	.07	-.04	.04	.03	-.19**	.11	.09	-.08	-.04	-.19**	.01	.02
26. Contact--# Females in last 3 yrs	.05	-.06	.01	-.01	-.20**	.14*	.14*	-.08	.06	-.07	-.02	-.02
27. Contact--%HIV+ Male on caseload	.08	.03	.06	-.08	.03	-.01	-.01	-.07	-.04	-.14*	.10	-.08
28. Contact--%HIV+ Female on caseload	.06	-.07	.03	-.02	-.16*	.14*	.14*	-.06	.05	-.04	-.03	-.04
29. IBC total score	-.42**	.19**	.24**	.56**	.72**	-.59**	-.75**	.10	.03	-.01	.05	.03

Note: n = 231. (*) = significant at (.05) level; (**) = significant at (.01) level.

Table 12. (cont.)

	25.	26.	27.	28.	29.
<u>Dependent Variable</u>					
25. Contact--# Males in last 3 yrs	1.00				
26. Contact--# Females in last 3 yrs	.38**	1.00			
27. Contact--%HIV+ Male on caseload	.22**	.26**	1.00		
28. Contact--%HIV+ Female on caseload	.19**	.92**	.27**	1.00	
29. IBC total score	-.12	-.11	-.03	-.08	1.00

Note: n = 231. (*) = significant at (.05) level; (**) = significant at (.01) level.

Table 13. Index of Breaching Confidentiality (IBC) Means, Standard Deviations and Standard Error of the Mean (SEM) values for Independent Variables Client Gender and Client Dangerousness

	Index of Breaching Confidentiality		
	Mean	SD	SEM
Client Gender			
Male	30.98	9.72	.90
Female	29.73	9.31	.84
Level of Client Dangerousness			
Low	28.02	10.21	1.08
Medium	29.76	8.96	1.05
High	33.27	8.72	1.08
<hr/>			
Female			
Low dangerousness	27.62	10.18	1.53
Medium dangerousness	28.07	9.69	1.37
High dangerousness	33.29	8.37	1.46
Male			
Low dangerousness	28.42	10.38	1.51
Medium dangerousness	31.46	8.96	1.58
High dangerousness	33.06	8.72	1.60

Note: n = 231; Means may be misleading due to non-normal distribution of IBC total scores.

APPENDIX H: IOWA STATE UNIVERSITY IRB APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office of Research Compliance
Vice Provost for Research and
Advanced Studies
2810 Beardshear Hall
Ames, Iowa 50011-2036
515 294-4566
FAX 515 294-7288

TO: Brenda Crawford
FROM: Ginny Austin, IRB Coordinator
RE: IRB ID # 03-466

DATE REVIEWED: April 10, 2003

The project, "Breaching Confidentiality with HIV-Positive Clients: The effects of client gender, level of client dangerousness, and applicable state law" has been declared exempt from Federal regulations as described in 45 CFR 46.101(b)(2).

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

To be in compliance with ISU's Federal Wide Assurance through the Office of Human Research Protections (OHRP) all projects involving human subjects, must be reviewed by the Institutional Review Board (IRB). Only the IRB may determine if the project must follow the requirements of 45 CFR 46 or is exempt from the requirements specified in this law. **Therefore, all human subject projects must be submitted and reviewed by the IRB.**

Because this project is exempt it does not require further IRB review and is exempt from the Department of Health and Human Service (DHHS) regulations for the protection of human subjects.

We do, however, urge you to protect the rights of your participants in the same ways that you would if IRB approval were required. This includes providing relevant information about the research to the participants. Although this project is exempt, you must carry out the research as proposed in the IRB application, including obtaining and documenting (signed) informed consent, if applicable to your project.

Any modification of this research should be submitted to the IRB on a Continuation and/or Modification form to determine if the project still meets the Federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB proposal will need to be submitted and approved before proceeding with data collection.

cc: Psychology

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