

# Disease-Related Stigma: Comparing Predictors of AIDS and Cancer Stigma

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**ABSTRACT.** This study explores the prevalence of AIDS and cancer stigma as influenced by attitude toward homosexuality, religiosity, authoritarianism, and androgyny. This study used a quasi-experimental survey design ( $N = 485$ ) to examine attitude toward people with AIDS and cancer, and interaction with people with AIDS and cancer. Negative attitudes toward homosexuality, high religious intensity and ideology, high authoritarianism, and low expressive emerged as factors related to more negative attitudes toward people with AIDS and unwillingness to interact with people with AIDS. Attitudes toward people with cancer were generally not related to the variables. Findings explore how to campaign efforts to reduce existing negative attitudes toward AIDS and homosexuality, given that gay men with AIDS are especially stigmatized. Implications and directions for future research are discussed, especially for interventions. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery*

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Since the beginning of the AIDS epidemic, people with HIV and/or AIDS have been stigmatized (e.g., Crawford, 1996; Herek, Capitanio, & Widaman, 2002). The acronym "AIDS" itself elicits a range of feelings that include fear, anger, revulsion, sympathy, and pity (Devine, Plant, & Harrison, 1999). This stigma is not only limited to harboring negative feelings about the person with HIV but takes the form of behaviors such as physical violence, social isolation, and losing family support (e.g., Herek & Glunt, 1988; Leary & Schreindorfer, 1998; Pryor, Reeder, & McManus, 1991). These potential manifestations of stigma may lead people with HIV to maintain privacy and not disclose their infection (Derlega, Winstead, Greene, Serovich, & Elwood, 2002; Greene, Derlega, Yep, & Petronio, 2003; Herek & Glunt, 1988). Non-disclosure of HIV infection can become a potential threat to both self- and others' health (e.g., Greene et al., 2003; Greene, Parrott, & Serovich, 1993).

Social stigma originates from an attribute that conveys a devalued social identity in a specific context (Crocker, Major, & Steele, 1998). A particular attribute might result in an individual being stigmatized in one context but not in another. For instance, research has shown that gays and lesbians are stigmatized in the United States (e.g., Devine et al., 1999; Herek & Capitanio, 1999; Herek & Cogan, 1995; Leary & Schreindorfer, 1998). The particular attribute that is stigmatized in this instance is sexual orientation, yet homosexual behavior is considered a normal stage of development in many cultures (e.g., Archer, 1985). There has been a general linking of homosexuals and injection drug users (IDUs) with AIDS (Devine et al., 1999; Herek & Capitanio, 1999; Herek et al., 2002; Leary & Schreindorfer, 1998). In addition, people who are homophobic may stigmatize people with AIDS (e.g., D'Angelo, McGuire, Abbott, & Sheridan, 1998; Leary & Schreindorfer, 1998; Triplet & Sugarman, 1987), and people who are afraid of AIDS may stigmatize homosexuals (Devine et al., 1999). There remain unanswered questions about the basis for stigma and who engages in stigmatization for different illnesses, some of the questions explored in this study.

***STIGMA AND PREJUDICE RELATED TO TOPIC OF DISEASE***

According to Worchel, Cooper, and Goethals (1988), prejudice can be defined as “an unjustified negative attitude toward an individual based solely on that individual’s membership in a group” (p. 449). Falk (2001) has defined stigma as “an invisible sign of disapproval which permits ‘insiders’ to draw a line around ‘outsiders’ in order to demarcate the limits of inclusion in any group” (p.17). He further explains that the demarcation permits the insiders to know who is in and who is out and thereby demonstrates what happens to people who deviate from the accepted norm. This stigmatization can take the form of physical abuse, isolation, and mental suffering for those stigmatized. More specifically, in interpersonal relationships stigma can take the form of rejection and loathing (Falk, 2001).

The above definitions convey the social orientation toward an individual or group based on their membership (Brown, 1995) as well as negative aspects of group prejudice: “the wary, suspicious, derogatory, hostile, or ultimately murderous treatment of one group of people by another” (Brown, 1995, p. 7). Thus, prejudice can be group based (when a group of people is discriminated against) or individual based (when an individual is discriminated against because of membership in a particular group). According to Goffman (1963), stigma is less a feature of an individual than of a relationship, and stigmatizing one person can confirm the “unusualness” of another. Therefore people stigmatize others and feel better about themselves when they are not themselves part of the stigmatized condition. People also feel uncomfortable in the company of stigmatized people and avoid social contact with them (Herek & Capitano, 1999; Pryor et al., 1991).

Leary and Schreindorfer (1998) have described stigma as “interpersonal disassociation,” which means that people start withdrawing from (i.e., avoiding, excluding, ostracizing, or otherwise minimizing interaction with) individuals who are perceived to have certain characteristics. Thus, stigmatization begins when people are perceived to have AIDS, and it extends to people who are HIV positive and may or may not manifest symptoms of AIDS (e.g., Herek & Glunt, 1988). In a recent study of HIV-related stigma that examined two time periods (viz. 1997 and 1999) (Herek et al., 2002), 54% of people in 1997 believed that people with AIDS are responsible for their illness. In 1999, the proportion had declined slightly to 48%, but it is evident that stigma related to AIDS is still present in the United States.

### *AIDS Stigma and Sexual Prejudice*

People with AIDS are multiply stigmatized by the association of AIDS with death and by equation of AIDS with previously stigmatized homosexual behavior, drug use, prostitution, and promiscuity (e.g., Cline & Boyd, 1993; Goffman, 1963; Kelly, St. Lawrence, Smith, Hood, & Cook, 1987; Leary & Schreindorfer, 1998; O'Donell, O'Donell, Pleck, Snarey, & Rose, 1987). The stigmatizing effect of AIDS is so great that even many of the people most knowledgeable about the disease (health care workers) have been found to stigmatize people with AIDS (e.g., Kelly et al., 1987).

People associate AIDS primarily with men who have sex with men (MSM) (e.g., D'Angelo et al., 1998; Triplet & Sugarman, 1987), and this association is correlated with higher levels of homophobia (Leary & Schreindorfer, 1998). Several national opinion polls since 1992 have observed that there is widespread fear and hatred of homosexuals in the United States, and 59% of Americans do not consider homosexuality an acceptable lifestyle (e.g., Falk, 2001). People who contract AIDS sexually are assigned more blame for their infection, especially a gay or bisexual man who acquired AIDS sexually evokes more negative response than a heterosexual man or woman who acquired AIDS sexually (e.g., Anderson, 1992; Herek & Capitanio, 1999; Herek & Glunt, 1991; St. Lawrence et al., 1987; Triplet & Sugarman, 1987). In a study by D'Angelo et al. (1998), higher levels of homophobia were related to negative attitudes toward people with AIDS, including blame and disrespect. Thus, people with preexisting negative attitudes may find ways of expressing their prejudice, specifically through stigmatizing people with AIDS.

### *Cancer Stigma*

Cancer is another disease that may be stigmatized. In previous studies, cancer was stigmatized because the public did not have enough information about the disease, its risks, and prevention (Romano, 1986). Some people feel uncomfortable in the presence of someone with cancer, and people with cancer are sometimes "victimized" or avoided by family members and friends, resulting in strain between people with cancer and with both family and friends (e.g., Cobb, 1976; Cobb & Erbe, 1978; Lichtman, 1982; Wortman & Dunkel-Schetter, 1979). Potential loss of health insurance and employment may be an after-effect of disclosure of cancer diagnosis, but disclosure to family members and

close friends may not be as much of a concern (Greene, 2000). The reasons for stigmatizing cancer patients are many, but it is interesting to note that if the cancer patient is of the same age and gender, the perception of similarity is likely, and people tend to attribute the disease to the patient's characteristic, personality, and life style to reduce the threat that they feel (e.g., Stahly, 1988).

Some studies, however, have been inconsistent with the stigma hypothesis. A study by Tempelaar et al. (1989) in the Netherlands looked at 217 cancer patients and compared their positive and negative social experiences to a similar size group without cancer. These cancer patients had more positive social experiences and fewer negative ones than a random population sample. This may imply that others respond supportively when someone is diagnosed with cancer. In another study by Zemore, Rinholm, Shepel, and Richards (1990), many women with cancer reported closer family ties and a more positive outlook on life rather than rejection and abandonment. The more positive response is encouraging, and Bloom and Kessler (1994) indicated that breast cancer no longer carries with it stigma that might lead to a reduction in the level of women's emotional support. In fact, their study showed that cancer patients reported receiving more emotional support than did women experiencing other kinds of surgery (Bloom & Kessler, 1994).

### *Comparing AIDS and Cancer Stigma*

Cancer stigma does not conjure the attribution of blame that HIV or AIDS often carries, although different kinds of cancer are perceived differently (Greene, 2000). Crawford (1996) and Greene (2000), for example, found that the stigma associated with AIDS is higher than that associated with other stigmatized conditions, such as cancer. Similar findings were reported in a study that examined reactions to people with AIDS, serum hepatitis, Legionnaire's disease, and genital herpes (Triplet & Sugarman, 1987). Only people with AIDS were rated as being interactionally undesirable, yet patients with other diseases had relatively neutral ratings of interactional desirability (Triplet & Sugarman, 1987). Based on these findings, we hypothesize that:

H1: Negative attitudes toward homosexuality will be associated with greater stigmatization (greater attribution of blame and less willingness to interact with) of people with AIDS than of people with cancer.

### *AIDS Stigma and Religiosity*

In the early 1980s, when the symptoms of AIDS were first identified, it was considered a “gay disease.” It was initially labeled “gay-related immune deficiency” (GRID), thereby equating the disease with homosexual behavior (Epstein, 1996; McAllister, 1992). This association was not limited to social factors, and political factors also contributed to the formation of attitudes about people with HIV. According to Cameron (1988) and Dannemeyer (1989), members of the “Christian Right” and other conservative groups routinely conjured up anti-gay political feelings. AIDS was frequently assumed to be a result of homosexual behavior or drug use that was immoral, unnatural, unsanitary, unhealthy, and/or suicidal (e.g., Buchanan, 1987). Cancer, on the other hand, has been positively correlated with social aspects of religiosity, such that for women who were undergoing cancer treatment, social aspects of religiosity (e.g., going to religious services) were positively associated with decline in anxiety over the course of the cancer treatment (Devine et al., 2002).

Religiosity has been explored along two different dimensions, frequency and direction. Frequency refers to the regularity of attending religious services and is sometimes termed religious intensity (see Glock, Ringer, & Babbie, 1967). Direction, however, refers to the content of religious views (e.g., liberal/conservative) and is also termed religious ideology (see Price, Terry, & Johnston, 1980). Thus, we hypothesize:

H2: Greater religiosity will be associated with greater stigmatization (greater attribution of blame and less willingness to interact with) of people with AIDS than of people with cancer.

### *AIDS Stigma and Authoritarianism*

The authoritarian personality syndrome (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950) can be used as a basis for explaining the origins for stereotyping, prejudice, and discrimination. The syndrome includes blind submission to authority, strict adherence to middle-class conventions, aggression against those who do not live conventionally, and the tendency to think in rigid categories (Adorno et al., 1950). According to Altemeyer (1988), the characteristics of high authoritarians include extreme self-righteousness with a strong acceptance of traditional values and norms, belief in submission to a legitimate authority, and a

tendency to act aggressively toward people who pose a threat to “conventional” values and norms.

Prejudice that stems from blind submission to authority reflects conservative values and the authoritarian’s well-socialized aim to enjoy mainstream middle-class status (Fiske, 1998). Haddock and Zanna (1998) found that high authoritarian people held beliefs that gays hinder the attainment of values and thus had more negative attitudes toward homosexuality. Overall, the study found that high authoritarianism was negatively associated with favorability of attitude, affective responses, and cognitive beliefs about homosexuals (Haddock & Zanna, 1998). In another study, authoritarianism was related not only to an intolerance of differences and a tendency toward severe punishment of people who break social norms but also to the exaggeration of threats resulting from violation of traditional norms, like drug use, AIDS, and crime (Skarzynska & Gientka, 1999). Cancer has not been linked to issues of promiscuity, drug use, or sexual orientation in ways similar to AIDS. Thus, it follows that:

H3: Greater authoritarianism will be associated with greater stigmatization (greater attribution of blame and less willingness to interact with) of people with AIDS than of people with cancer.

### ***AIDS Stigma and Androgyny***

Androgyny is a theory of psychological gender rather than biological gender, based on the premise that variation within genders is greater than the difference between genders (Bem, 1974). According to Greene et al. (1993), sex-role socialization may affect individuals’ perceptions of privacy and HIV testing. This is especially true for heterosexual men, for whom gender role conformity is acutely defined by social standards, and may result in anti-gay prejudice (Bem, 1993).

A meta-analysis by Crawford (1996) reported that women evaluated persons with AIDS more positively than did men. In a study by D’Angelo et al. (1998), males had more negative attitudes toward people with AIDS than females. The study demonstrated that males held significantly less respectful attitudes toward people with AIDS than did females and were more blaming, especially when the disease was transmitted sexually. This finding suggested that males continue to identify AIDS as a predominantly gay sexually transmitted disease (STD). Fish and Rye (1991) analyzed the effect of sexual orientation and gender of subject on stigma toward individuals with AIDS versus cancer patients

and adults without AIDS or cancer. Among other findings, women evaluated persons with AIDS more positively than men.

Although androgyny is a measure of an individual's psychological and not biological sex (Bem, 1974), research has shown that traditional people often accept sex-role stereotypes that are associated with their biological sex (e.g., Greene & Rubin, 1991). Androgyny has been studied along two dimensions, instrumental (or masculine) and expressive (or feminine). Not specifically focusing on biological gender but on psychological gender, we hypothesize that:

H4A: Instrumental will be more positively related to greater stigmatization (greater attribution of blame and less willingness to interact with) of people with AIDS than of people with cancer.

H4B: Expressive will be more inversely related to greater stigmatization (greater attribution of blame and less willingness to interact with) of people with AIDS than of people with cancer.

Based on the hypotheses described, we were also interested in exploring the relationship among the following variables: androgyny (expressive and instrumental) attitude toward homosexuality, religious intensity and ideology, and authoritarianism with attitude toward and interaction with people with AIDS and people with cancer. Thus, we ask the research question:

RQ1: Which variable or combination of variables will best predict attitude toward people with AIDS, interaction with people with AIDS, attitude toward people with cancer, and interaction with people with cancer respectively?

## METHOD

### *Participants and Procedure*

Four hundred and eighty-five male ( $n = 194$ ) and female ( $n = 289$ ) undergraduate students (2 subjects did not respond) who had enrolled in communication classes were recruited in exchange for extra class credit ( $N = 485$ ). The undergraduate students ranged in age from 18 to 42 ( $M = 21.92$ ,  $SD = 3.41$ ). The sample was 97% heterosexual, and was largely Caucasian (98%).



The participants for the study were recruited from a medium-sized southeastern university. The students came outside of class and filled out the survey either alone or in groups of 2-4. The questionnaire took less than 30 minutes to complete and was anonymous. After completing the questionnaire, participants were debriefed and thanked for their participation.

### ***Measurement Instruments***

Variables measured included: androgyny (expressive and instrumental), attitude toward homosexuality, religiosity (intensity and ideology), authoritarianism, attitude toward people with AIDS, interaction with people with AIDS, attitude toward people with cancer, and interaction with people with cancer.

*Androgyny.* The androgyny scale used for the study was Wheelless and Dierks-Stewart's (1981) short form, which was derived from the Bem's Sex Role Inventory (BSRI) (1974). This self-assessment instrument contains 20 stimulus adjectives rated on a scale of one to seven and asks participants to describe themselves by responding to the statement "how true each of these personality characteristics (stimulus adjective) are of you" (e.g., sincere, assertive). This instrument yields two dimensions (instrumental and expressive) and the subscales were formed by summing and averaging the items. For the *instrumental* (formerly known as masculine) dimension ( $M = 4.96$ ,  $SD = .99$ ) the reliability (Cronbach's alpha) was .89, and the factor analysis indicated a single factor structure (eigenvalue = 4.86, 53.95% var.) with all items loading greater than .6.<sup>1</sup> For the *expressive* (formerly known as feminine) dimension ( $M = 5.74$ ,  $SD = .84$ ), reliability (Cronbach's alpha) was .92, and the factor analysis indicated a single factor structure (eigenvalue = 5.84, 58.38% var.) with all items loading greater than .6. A higher score on both subscales indicated more agreement that the adjectives described the participant as more instrumental or expressive.

*Attitude toward homosexuality.* The attitude toward homosexuality was measured by 12 five point Likert type items.<sup>2</sup> One item stated, "I would feel comfortable knowing that I was attracted to members of my sex." Reliability was (Cronbach's alpha) .88, and the factor analysis indicated a single factor structure (eigenvalue = 4.78, 47.84% var.) with all items loading greater than .6 (two items were deleted to maintain a single factor structure).<sup>3</sup> The remaining 10 items were summed and averaged to form a composite scale with a higher score indicating more favorable attitude toward homosexuality ( $M = 3.99$ ,  $SD = .86$ ).

*Religiosity.* The religiosity scale was developed by Greene and Rubin (1991). The scale was a short form derived from research by Glock et al. (1967) to measure *intensity* and Price et al. (1980) designed to measure *ideology*. Four items measured *religious intensity*, for example, "I attend church service regularly." These items were measured on a five point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Scores were summed and averaged ( $M = 3.05$ ,  $SD = 1.04$ ). For religious intensity, the reliability (Cronbach's alpha) was .88, and the factor analysis indicated a single factor structure (eigenvalue = 2.96, 73.89% var.) with all items loading greater than .8.

The six items for *religiosity ideology* were five point Likert type statements such as "I agree with what the Bible teaches about separate roles for men and women." The six statements were summed and averaged ( $M = 3.32$ ,  $SD = .96$ ). For religious ideology, the reliability (Cronbach's alpha) was .89, and the factor analysis indicated a single factor structure (eigenvalue = 3.83, 63.84% var.) with all items loading greater than .7. A higher score indicated more religious conservative ideology or religious intensity.<sup>4</sup>

*Authoritarianism.* The authoritarianism scale included 8 five point Likert type items.<sup>5</sup> One item stated "A person either knows the answer to a question or he/she doesn't." Reliability (Cronbach's alpha) was .78, and the factor analysis indicated a single factor structure (eigenvalue = 2.89, 48.13% var.) with all items loading greater than .6. The items were summed and averaged to form a composite scale ( $M = 2.18$ ,  $SD = .73$ ) (two items were dropped to retain a single factor structure)<sup>6</sup> with a higher score indicating a more authoritarian viewpoint.

*Attitude toward people with AIDS and cancer.* The 7 item attitude toward people with AIDS scale was derived from the twelve item prejudicial scale developed by St. Lawrence, Husfeldt, Kelly, Hood, and Smith (1990). One item stated "People with AIDS deserve sympathy and understanding." The items were rated on a 7 point Likert type scale and the responses ranged from 1 (*strongly agree*) to 7 (*strongly disagree*). Reliability was (Cronbach's alpha) .7, and the factor analysis indicated a single factor structure (eigenvalue = 2.61, 43.48% var.) with all items loading greater than .6 (one item was dropped to retain a single factor structure).<sup>7</sup> The items were summed and averaged to form a composite scale with a higher score indicating more favorable evaluation of people with AIDS ( $M = 5.28$ ,  $SD = 1.03$ ).

Similar items were used to measure attitude toward people with cancer (with the name of the disease changed). For example, "People with cancer deserve sympathy and understanding." Reliability was

(Cronbach's alpha) .81, and the factor analysis indicated a single factor structure (eigenvalue = 3.27, 54.44% var.) with all items loading greater than .6 (one item was dropped to retain a single factor structure).<sup>8</sup> The items were summed and averaged to form a composite scale with a higher score indicating more favorable evaluation of people with cancer ( $M = 6.42$ ,  $SD = .86$ ).

*Interaction with people with AIDS and cancer.* The 7 item interaction with people with AIDS scale was modified from the seven item social interaction scale developed by St. Lawrence et al. (1990). One item stated "I am willing to attend a party with a person with AIDS." The items were rated on a 7 point Likert type scale and the responses ranged from 1 (*strongly agree*) to 7 (*strongly disagree*). Reliability was (Cronbach's alpha) .92, and the factor analysis indicated a single factor structure (eigenvalue = 4.97, 71.03% var.) with all items loading greater than .7. The items were summed and averaged to form a composite scale with a higher score indicating willingness to interact with people with AIDS ( $M = 5.73$ ,  $SD = 1.25$ ).

The 7 item interaction with people with cancer scale was similar, with the disease changed from AIDS to cancer. One item stated "I am willing to attend a party with a person with cancer." Reliability was (Cronbach's alpha) .97, and the factor analysis indicated a single factor structure (eigenvalue = 6.05, 86.38% var.) with all items loading greater than .8. The items were summed and averaged to form a composite scale with a higher score indicating willingness to interact with people with cancer ( $M = 6.69$ ,  $SD = .86$ ).

## RESULTS

### *Analyses*

A zero order correlation matrix for all variables is presented in Table 1. Correlations were performed to explore the relations among variables, with level of significance set at  $p < .01$ , to protect against Type I error. Stepwise multiple regressions were performed to test research question 1, with the level of significance set at  $p < .05$ . In addition, a canonical correlation was performed to explore the relationship between sets of independent and dependent variables. The results will be organized by hypothesis and presented next.

TABLE 1. Zero Order Correlation Matrix for All Variables

	1	2	3	4	5	6	7	8	9	10	11
1. Express.											
2. Instrum.	-.05										
3. Athom	.15**	-.09									
4. Rel. Inten.	.18**	.03	-.39**								
5. Rel. Ideol.	.13*	.04	-.49**	.79**							
6. Author.	-.14*	.07	-.42**	.22**	.31**						
7. Att. AIDS	.13*	-.04	.38**	-.12*	-.17**	-.38**					
8. Int. AIDS	.25**	-.01	.46**	-.13*	-.22**	-.42**	.52**				
9. Att. Can	.08	.03	.09	.02	.03	-.14*	.42**	.39**			
10. Int. Can	.07	.10	.02	.05	.06	-.11	.24**	.41**	.51**		
11. Sex <sup>a</sup>	.35**	-.18**	.31**	.14*	.01	-.16**	.23**	.20**	.16**	.05	
12. Age	-.03	.07	.09	-.16**	-.07**	-.07	.14*	.04	-.01	-.04	-.13*

\*  $p < .01$ , \*\*  $p < .001$ <sup>a</sup> 0 = male, 1 = female

(Expressive = Express., Instrumental = Instrum., Attitude Toward Homosexuality = Athom, Religious Intensity = Rel. Inten., Religious Ideology = Rel. Ideol., Authoritarianism = Author., Attitude Toward People with AIDS = Att. AIDS, Interaction with People with AIDS = Int. AIDS, Attitude Toward People with Cancer = Att. Can, Interaction with People with Cancer = Int. Can.)

### ***Hypothesis 1 for Attitude Toward Homosexuality***

Hypothesis 1 examined attitude toward homosexuality as a predictor of attitude (more negative attitudes and lesser willingness to interact) toward people with AIDS as compared to people with cancer (see Table 1). The correlation between attitude toward homosexuality and attitude toward people with AIDS ( $r = .38$ ) was positive. Thus, negative attitudes toward homosexuality are related to negative attitudes toward people with AIDS (and vice versa). The correlation between attitude toward homosexuality and attitude toward people with cancer was not significant ( $r = .09$ ). The correlation between attitude toward homosexuality and interaction with people with AIDS ( $r = .46$ ) was inverse. Thus, negative attitudes toward homosexuality are related to unwillingness to interact with people with AIDS. The correlation between attitude toward homosexuality and interaction with people with cancer was not significant ( $r = .02$ ). Thus, Hypothesis 1 was supported. Overall, the results showed stronger relations for attitude toward homosexuality (more negative attitudes toward and less willingness to interact with) with AIDS than with cancer.

### ***Hypothesis 2 for Religiosity***

Hypothesis 2 explored the relation between religiosity (religious intensity and religious ideology) and attitude (greater attribution of blame and less willingness to interact with) toward people with AIDS as compared to people with cancer (see Table 1). The correlation between religious intensity and attitude toward people with AIDS ( $r = -.12$ ) was inverse, and there was also an inverse relation between intensity and willingness to interact with people with AIDS ( $r = -.13$ ). Thus, higher religious intensity is related to both negative attitudes toward people with AIDS and unwillingness to interact with people with AIDS. The correlations between religious intensity and attitude toward people with cancer ( $r = .02$ ) and willingness to interact with people with cancer ( $r = .05$ ) were not significant. Overall, Hypothesis 2 was supported for religious intensity.

Similarly, the correlation between religious ideology and attitude toward people with AIDS ( $r = -.17$ ) was inverse, and there was also an inverse relation between religious ideology and willingness to interact with people with AIDS ( $r = -.22$ ). Thus, more conservative religious ideology is associated with negative attitudes toward people with AIDS and unwillingness to interact with people with AIDS. The correlations

between religious ideology and attitude toward people with cancer ( $r = .03$ ) and willingness to interact with people with cancer ( $r = .06$ ) were not significant. Thus, Hypothesis 2 was also supported for religious ideology. Overall, the results showed stronger relations between religious intensity and religious ideology for AIDS than cancer.

### ***Hypothesis 3 for Authoritarianism***

Hypothesis 3 explored authoritarianism and attitude toward people with AIDS and people with cancer (see Table 1). The correlation between authoritarianism and attitude toward people with AIDS ( $r = -.38$ ) was inverse, and there was an inverse relation between authoritarian viewpoint and willingness to interact with people with AIDS ( $r = -.42$ ). Thus, higher authoritarianism is related to negative attitudes toward people with AIDS and unwillingness to interact with people with AIDS. The correlation between authoritarianism and attitude toward people with cancer ( $r = -.14$ ) was also significant, such that higher authoritarianism is related to negative attitudes toward people with cancer. The correlation between authoritarianism and willingness to interact with people with cancer ( $r = -.11$ ) was not significant. Thus, Hypothesis 3 was generally supported. Overall, the results showed stronger relations between authoritarianism for AIDS than for cancer.

### ***Hypotheses 4A and B for Androgyny***

Hypothesis 4 explored the relation between expressive and instrumental with attitude (greater attribution of blame and less willingness to interact) toward people with AIDS compared to people with cancer (see Table 1). The correlations between instrumental and attitude toward people with AIDS ( $r = -.04$ ), willingness to interact with people with AIDS ( $r = -.01$ ), attitude toward people with cancer ( $r = .03$ ) and willingness to interact with people with cancer ( $r = .10$ ) were not significant. Thus, Hypothesis 4A was not supported.

The correlation between expressive and attitude toward people with AIDS ( $r = .13$ ) was direct, and there was also a direct relation between expressive and willingness to interact with people with AIDS ( $r = .25$ ). Thus, higher expressiveness is associated with positive attitudes toward people with AIDS and willingness to interact with people with AIDS. The correlations between expressive and attitude toward people with cancer ( $r = .08$ ) and willingness to interact with people with cancer ( $r = .07$ ) were not significant. Thus, Hypothesis 4B was supported.

Overall, the results showed that expressive was negatively related to attitude toward people with AIDS but not cancer. However, the results for the instrumental dimension of androgyny were not significant.

### ***Research Question 1 for Interactions Between Predictor and Dependent Variables***

RQ 1 examined the effects of instrumental, expressive, attitude toward homosexuality, religious intensity, religious ideology, and authoritarianism on attitudes toward and interaction with people with AIDS and people with cancer. A regression model was run 4 times, predicting attitude toward people with AIDS and people with cancer, and interaction with people with AIDS and people with cancer. All variables were initially entered in each model: attitude toward homosexuality, expressive, instrumental, religious intensity, religious ideology, and authoritarianism.

*Attitude toward people with AIDS.* For attitude toward people with AIDS, on step 1 attitude toward homosexuality entered ( $B = .40, p < .001, Adj. R^2 = .16$ ) the model. On step 2, authoritarianism entered ( $B = -.26, p .001$ ) and the final model was significant ( $F(2, 481) = 66.88, p < .001; R^2cg = .06$ ). No other variables were significant in the final model. Thus, negative attitudes toward homosexuality and greater authoritarianism predicted negative attitudes toward people with AIDS.

*Attitude toward people with cancer.* For attitude toward people with cancer, on step 1, authoritarianism entered ( $B = -.14, p < .01, Adj. R^2 = .02$ ) and the final model was significant ( $F(1, 481) = 9.38, p < .01$ ). No other variables were significant in the final model. Thus, greater authoritarianism predicted negative attitudes toward people with cancer.

*Interaction with people with AIDS.* For interaction with people with AIDS, on step 1, attitude toward homosexuality entered ( $B = .46, p < .001, Adj. R^2 = .21$ ) the model. On step 2, authoritarianism entered ( $B = -.27, p < .001, R^2cg = .06$ ) and the model was significant. On step 3, expressive entered ( $B = .16, p < .001$ ) and the final model was significant ( $F(3, 480) = 67.98, p < .001; R^2cg = .03$ ). No other variables were significant in the final model. Thus, negative attitude toward homosexuality, high authoritarianism, and less expressive predicted unwillingness to interact with people with AIDS.

*Interaction with people with cancer.* For interaction with people with cancer, on step 1, authoritarianism entered ( $B = -.11, p < .05, Adj. R^2 = .01$ ) the model. On step 2, instrumental entered ( $B = .11, p < .05, R^2cg = .01$ ) and the model was significant. On step 3, religious ideology entered ( $B = .10, p < .05$ ) and the final model was significant ( $F(3, 479) = 5.42,$

$p < .05$ ;  $R^2_{cg} = .01$ ). No other variables were significant in the final model. Thus, high authoritarianism, less instrumental, and more liberal religious ideology predicted unwillingness to interact with people with cancer.

*Canonical correlation.* A canonical correlation was also performed to test the relation between the set of predictor variables (instrumental, expressive, attitude toward homosexuality, religious intensity and ideology, and authoritarianism) and the set of dependent variables (attitudes toward people with AIDS and people with cancer, and interaction with people with AIDS and people with cancer). The results for the canonical correlation are summarized in Table 2.

The canonical correlation was significant ( $F(24, 1651) = 11.22$ ;  $p < .001$ ). The first function was significant. The first canonical root yielded a canonical correlation of .62 ( $F(24, 1651) = 11.22$ ;  $p < .001$ ) with an eigenvalue of .61, capturing 38% of the standardized variance in the dependent variables. The second, third, and fourth canonical roots were not significant.

For the independent variables, attitude toward homosexuality ( $r = .88$ ), authoritarianism ( $r = -.75$ ), and religious ideology ( $r = .45$ ) loaded highest on function 1. This latent factor was labeled *conservative attitudes*. For the dependent variables, interaction with people with AIDS ( $r = .89$ ), and attitude toward people with AIDS ( $r = .75$ ) loaded

TABLE 2. Standardized and Structure Coefficients for Canonical Results for Function 1

<i>Dependent Variables</i>	<i>Standardized</i>	<i>Structure</i>
AIDS attitude	.46	.75
AIDS interact	.81	.89
Cancer attitude	-.17	.22
Cancer interact	-.25	.11
<i>Independent Variables</i>		
Expressive	.21	.38
Instrumental	.01	-.09
Attitude toward homosexuality	.65	.88
Religious intensity	.11	-.28
Religious ideology	-.11	-.45
Authoritarianism	-.45	-.75



highest on function 1. This latent factor was labeled *comfort with people with AIDS*.

## DISCUSSION

This study examined the relationship between attitude toward homosexuality, religiosity, androgyny, and authoritarianism with attitudes toward and interaction with people with AIDS and people with cancer. The results of the study showed that lower expressive, negative attitudes toward homosexuality, greater religious intensity and conservative ideology, and greater authoritarianism were related to negative attitudes toward and interaction with people with AIDS but generally not people with cancer.

First, we found that, consistent with previous research (e.g., D'Angelo et al., 1998; Devine et al., 1999; Leary & Schreindorfer, 1998) negative attitudes toward homosexuality were directly related to negative attitudes toward people with AIDS. Much of the stigma attached to AIDS reflects prior hostility toward gay men specifically, and toward the gay and lesbian community generally (Herek & Glunt, 1991; Pryor et al., 1991). Herek and Capitano (1999) found that a homosexual or bisexual man was accorded more responsibility, less sympathy, and less social support than a heterosexual man or woman with AIDS (see also St. Lawrence et al., 1990). In addition, respondents expressed concern about even simple symbolic contact with people with AIDS, such as touching an article of clothing or drinking from a sterilized glass used by a person with AIDS (see also Herek & Capitano, 1999). The present study has shown strong and consistent correlations between negative attitudes toward homosexuality and negative attitude toward people with AIDS. Perhaps stigma has not decreased as much as was hoped for in this area.

Similarly, we found that higher levels of religiosity (ideology and intensity) were correlated with negative attitudes toward people with AIDS. Buchanan (1987) found religious beliefs to be highly associated with AIDS, which was perceived as being acquired by "immoral acts." Greene et al. (1993) reported that young adults' religious intensity and conservative ideology was associated with support for access to results of HIV tests. Research has also shown a positive relationship between religious fundamentalism and homosexual prejudice (e.g., Altemeyer & Hunsberger, 1992; Hunsberger, 1996; Wylie & Forest, 1992). According to Laythe, Finkel, Bringle, and Kirkpatrick (2002), "many Biblical

literalists see homosexuality as a moral abomination explicitly proscribed by Scripture” (p. 16). The findings of the present study are consistent with previous research and expands study to another area. The associations between religiosity and health-related attitudes should be explored further.

For authoritarianism, results showed a relationship between high levels of authoritarianism and negative attitudes toward people with AIDS. People with AIDS are often viewed as morally suspect, are blamed for their circumstances, and are seen to be violating social standards (e.g., Devine et al., 1999; Leary & Schreindorfer, 1998). Thus, a strong relation is established between higher levels of authoritarianism and negative attitude toward people with AIDS and homosexuals (Haddock & Zanna, 1998; Skarzynska & Gientka, 1999). In the present study, authoritarianism correlated with both negative attitudes toward homosexuality and negative attitudes toward people with AIDS (perhaps one moderates the relation).

Lastly, for androgyny, not all results were consistent with predictions. We did not find relations between instrumental and attitude toward people with AIDS or cancer. Considering people’s biological gender, studies have shown that males generally assign more blame to people with AIDS than do females (D’Angelo et al., 1998). However, the point to note here is that androgyny measures psychological rather than biological gender. So, exploring psychological gender of males who stigmatize people with AIDS can provide a better understanding of how such people fare psychologically. Focusing on expressive, results supported the hypothesis, that higher levels of expressive are related to more positive attitudes toward people with AIDS and willingness to interact with people with AIDS. Overall, for androgyny, expressive was a better predictor than instrumental, and this lends credence to including androgyny (psychological gender), not simply biological gender, in studies.

### ***THEORETICAL IMPLICATIONS***

The results of the study show that AIDS stigma is widely prevalent and is mediated by factors such as attitude toward homosexuality, religiosity, authoritarianism, and androgyny. These results have implications for theory, as we discuss next.

First, this study adds to the literature on AIDS and stigma. Consistent with previous research (e.g., Crawford, 1996; Greene, 2000) this study shows that AIDS elicits more stigmatizing responses than cancer.

Previous researchers have explored the role of only one or two factors contributing to AIDS stigma (e.g., Haddock & Zanna, 1998; Herek & Glunt, 1991; Tempelaar et al., 1989). The current study looks at a combination of several factors contributing to AIDS and cancer stigma, one contribution of the present research. The relations were generally in expected directions and show that stigma can be predicted by personality factors, and this will be useful in future work.

Second, the study establishes that people's attitude have to be changed to reduce AIDS stigma. According to the social identity theory (Tajfel, 1982; Tajfel & Turner, 1979), by derogating an outgroup (an outgroup refers to a group with which an individual does not identify, see Devine, 1996) people try to maintain a positive social identity. By stigmatizing or derogating outgroups such as gay men or people with AIDS, people engage in a downward comparison process and feel that their group is superior (e.g., Brewer, 1979; Elwood, Carter, & Greene, in press; Hinkel & Brown, 1990; Sachdev & Bourhis, 1991). In such situations, changing group-based reactions is likely to be difficult (Devine et al., 1999). People's cherished values may be inconsistent with other cherished social identities. For instance, people who feel negatively toward homosexuals and people with AIDS may be confronted with seeing themselves as fair, compassionate, and caring yet biased (Rokeach, 1973). Making people confront their own inconsistencies may initiate change (Rokeach, 1973). This is a possible area for future stigma-based interventions.

Third, campaign efforts should focus on portraying a majority consensus that tolerance for homosexuality and people with AIDS is more prevalent than prejudice. Such efforts will help create an environment in which negative feelings toward people with AIDS and homosexuality will be discouraged (Devine et al., 1999) and seen as non-normative. Thus, we could model more accepting and inclusive behaviors in public service announcements (PSAs), television shows, etc. According to Cialdini (1988), the most basic social identity that appeals to people is that their attitudes reflect the attitudes of the majority. Cognitive dissonance theory (Festinger, 1957) postulates that individuals are motivated to be consistent with attitudes and behaviors. So, when people are persuaded to behave in a manner that is incongruous with their attitudes, they are likely to change their attitudes to suit their behavior (Festinger, 1957). Therefore, tolerance toward homosexuality and people with AIDS need to be projected not as a desirable option but as a required practice. AIDS campaigns can focus on advocating more humanitarian values.

### **LIMITATIONS**

There are several limitations of the study worth considering. The data were sampled primarily from the southeast and do not represent all races, ethnicities, and sexual orientations equally. This study also did not ask specifically *why* respondents felt negatively toward people with AIDS or cancer. In addition, the study looked only at several predictors, and other personality (e.g., self-esteem, culture, or political values), developmental, or environmental factors were not explored. It would be worth replicating results including a wider range of reported participant sexual orientation. Also, this study compared AIDS stigma and cancer, which are acquired differently. If AIDS and other STDs were compared, we may have found different results.

### **FUTURE RESEARCH**

This study points to different areas for future research. People's attitudes, behavioral intentions, and their own justification for prejudice can be studied together to understand the reasons that contribute to prejudicial attitudes. Open-ended questions could explore further why people feel negatively toward people with AIDS. Based on the results, campaign planners may try to tap the appropriate areas for improvement and reducing prejudice. Campaign efforts may try to utilize cognitive dissonance theory and evaluate whether changing attitudes, norms, or behavior will be more beneficial in reducing AIDS stigma and homosexual prejudice. In addition, studies should try to explore whether it is incomplete or inaccurate knowledge that causes people to hold such attitudes. Finally, the respondents for a similar study can be made part of a campaign audience and their post-campaign attitude can be studied to investigate the effects of AIDS campaigns. More specifically, it can be examined if a campaign can result in positive attitudes toward homosexuality and people with AIDS. Other personality and environmental factors can be studied to further understand the causes of AIDS stigma.

### **NOTES**

1. One item "independent" was dropped to retain a single factor structure.
2. The following items were used for the attitude toward homosexuality scale: "I would enjoy attending social functions at which homosexuals were present," "I would

feel comfortable knowing that I was attractive to members of my sex," "I would feel that I had failed as a parent if I learned that my child was gay," "If I saw two men holding hands in public I would be offended," "If a member of my sex made a sexual advance toward me I would feel angry," "I would feel comfortable if I learned that my daughter's teacher was a lesbian," "I would feel uncomfortable if I learned that my spouse or partner was attracted to members of his or her own sex," "I would feel uncomfortable if I learned that my boss was homosexual," "I would be comfortable if I found myself attracted to a member of my sex," "It would not bother me to walk through a predominantly gay section of town," "I would feel comfortable if I learned that my best friend of my sex was homosexual," and "I would feel uncomfortable knowing that my son's male teacher was homosexual."

3. Items 7 and 9 from the attitude toward homosexuality scale were dropped to retain a single factor structure.

4. Religious ideology and religious intensity were strongly correlated ( $r = .79$ ). Data suggests that the two scales measure two different things (i.e., frequency and direction) (e.g., Glock et al., 1967; Price et al., 1980). For instance, many attend religious services frequently (even daily) but the ideology of these services may be liberal or conservative. The strong correlation, however, does suggest that those who attend religious services frequently are more likely to espouse conservative religious views. This is an area for continuing research, as the patterns of correlations in the present data indicate some differences in relations.

5. The following items were used for the authoritarianism scale: "There are two kind of people in the world; the weak and the strong," "A person is either 100% American or he/she isn't," "A person either knows the answer to a question or he/she doesn't," "There are two kinds of women; the pure and the bad," "You can classify almost all people as either honest or crooked," "It doesn't take long to find out if you can trust a person," and "There is only one right way to do anything."

6. Items 6 and 7 from the authoritarianism scale were dropped to retain a single factor structure: "First impressions are very important," and "It doesn't take long to find out if you can trust a person."

7. The following item was dropped from the attitude toward people with AIDS scale: "People with AIDS have lots of pain and suffering."

8. The following item was dropped from the attitude toward people with cancer scale: "People with cancer have lots of pain and suffering."

## REFERENCES

- Adorno, T. W., Frenkel-Brunswick, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality*. New York: Harper & Row.
- Altemeyer, B. (1988). *Enemies of freedom: Understanding right wing authoritarianism*. San Francisco: Jossey-Bass.
- Altemeyer, B., & Hunsberger, B. (1992). Authoritarianism, religious fundamentalism, quest, and prejudice. *International Journal for the Psychology of Religion*, 2, 113-133.
- Anderson, V. N. (1992). For whom is this world just? Sexual orientation and AIDS. *Journal of Applied Social Psychology*, 22, 248-259.

- Archer, D. (1985). Social deviance. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed., Vol. 2, pp. 743-804). New York: Random House.
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology, 42*, 155-162.
- Bem, S. L. (1993). *The lenses of gender: Transforming the debate on sexual inequality*. New Haven, CT: Yale University Press.
- Bloom, J. R., & Kessler, L. (1994). Emotional support following cancer: A test of stigma and social activity hypotheses. *Journal of Health and Social Behavior, 35*, 118-133.
- Brewer, M. B. (1979). Ingroup bias in the minimal intergroup situations: A cognitive motivational analysis. *Psychological Bulletin, 86*, 307-324.
- Brown, R. (1995). *Prejudice: Its social psychology*. Oxford, UK: Blackwell.
- Buchanan, P. J. (1987, December 2). AIDS and moral bankruptcy. *New York Post*, p.23.
- Cameron, P. (1988). *Exposing the AIDS scandal*. Lafayette, LA: Huntington House.
- Cialdini, R. B. (1988). *Influence: Science and practice* (2nd ed.). Glenview, IL: Scott, Foresman.
- Cline, R. W., & Boyd, M. F. (1993). Communication as threat and therapy: Stigma, social support and coping with HIV infection. In E. Berlin-Ray (Ed.), *Case studies in health communication* (pp. 131-148). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine, 38*, 300-314.
- Cobb, S., & Erbe, C. (1978). Social support for the cancer patient. *Forum Medicine, 1*, 24-29.
- Crawford, A. M. (1996). Stigma associated with AIDS: A meta-analysis. *Journal of Applied Social Psychology, 26*, 398-416.
- Crocker, J., Major, B., & Steele, C. (1998). Social stigma. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (2nd ed., pp. 504-553). New York: The McGraw Hill Companies.
- D'Angelo, R. J., McGuire, J. M., Abbott, D. W., & Sheridan, K. (1998). Homophobia and perceptions of people with AIDS. *Journal of Applied Social Psychology, 28*, 157-170.
- Dannemeyer, W. (1989). *Shadow in the land: Homosexuality in America*. San Francisco: Ignatius.
- Derlega, V. J., Winstead, B. A., Greene, K., Serovich, J., & Elwood, W. N. (2002). Perceived HIV-related stigma and HIV disclosure to relationship partners after finding out about the seropositive diagnosis. *Journal of Health Psychology, 7*, 415-432.
- Devine, P. G. (1996). Exploring the interpersonal dynamics of intergroup contact. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of Motivation and Cognition* (Vol. 3, pp. 423-464). New York: Guilford.
- Devine, P. G., Plant, E. A., & Harrison, K. (1999). The problem of "Us" versus "Them" and AIDS stigma. *American Behavioral Scientist, 42*, 1212-1228.
- Devine, D., Sterner, J., Parker, P., Basen-Engquist, K., de Moor, C., Fitzgerald, M. et al. (2002). *Social aspects of religiosity predict reductions in anxiety for women undergoing treatment for ovarian cancer*. Paper presented at the 60th annual scientific meeting of the American Psychosomatic Society, Barcelona, Spain.

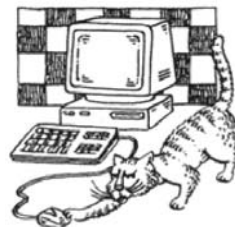
- Elwood, W. N., Carter, K. K., & Greene, K. (in press). Desperately seeking skeezers: Downward comparison theory and the implications for HIV/STD prevention among illegal drug users. *Journal of Psychoactive Drugs*.
- Epstein, S. (1996). *Impure science: AIDS, activism, and the politics of knowledge*. Berkeley: University of California Press.
- Falk, G. (2001). *Stigma: How we treat outsiders*. Amherst, NY: Prometheus Books.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Fish, T. A., & Rye, B. J. (1991). Attitude toward a homosexual or heterosexual with AIDS. *Journal of Applied Social Psychology, 21*, 651-667.
- Fiske, S. T. (1998). Stereotypes, prejudice, and discrimination. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 357-411). New York: McGraw Hill.
- Glock, C., Ringer, B., & Babbie, E. (1967). *To comfort and to challenge*. Berkeley: University of California Press.
- Goffman, E. (1963). *Stigma notes on the management of spoiled identity*. Englewood Cliffs, NJ: Prentice Hall.
- Greene, K. (2000). Disclosure of chronic illness varies by topic and target: The role of stigma and boundaries in willingness to disclose. In S. Petronio (Ed.), *Balancing the secrets of private disclosures* (pp. 123-136). Mahwah, NJ: Lawrence Erlbaum Associates.
- Greene, K., Derlega, V. J., Yep, G. A., & Petronio, S. (2003). *Privacy and disclosure of HIV in interpersonal relationships: A sourcebook for researchers and practitioners*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Greene, K., Parrott, R., & Serovich, J. M. (1993). Privacy, HIV testing, and AIDS: College students' versus parents' perspectives. *Health Communication, 5*, 59-74.
- Greene, K., & Rubin, D. L. (1991). Effects of gender inclusive/exclusive language in religious discourse. *Journal of Language and Social Psychology, 10*, 81-98.
- Haddock, G., & Zanna, M. P. (1998). Authoritarianism, values, and the favorability and structure of antigay attitude. In G. M. Herek (Ed.), *Stigma and sexual orientation: Understanding prejudice against lesbians, gay men, and bisexuals* (pp. 82-107). Thousand Oaks, CA: Sage.
- Herek, G. M., & Capitanio, J. P. (1999). AIDS and stigma and sexual prejudice. *American Behavioral Scientist, 42*, 1130-1147.
- Herek, G. M., Capitanio, J. P., & Widaman, K. F. (2002). HIV-related stigma and knowledge in the United States: Prevalence and Trends, 1991-1999. *American Journal of Public Health, 92*, 371-377.
- Herek, G. M., & Cogan, J. (1995). *AIDS and stigma: A review of the scientific literature*. San Francisco: Public Media Center.
- Herek, G. M., & Glunt, E. K. (1988). An epidemic of stigma: Public reactions to AIDS. *American Psychologist, 43*, 886-891.
- Herek, G. M., & Glunt, E. K. (1991). AIDS-related attitude in the United States: A preliminary conceptualization. *Journal of Sex Research, 28*, 99-123.
- Hinkel, S., & Brown, R. (1990). Intergroup comparisons and social identity: Some links and lacunae. In D. Abrams & M. A. Hogg (Eds.), *Social identity theory: Constructive and critical advances* (pp. 48-70). New York: Springer-Verlag.

- Hunsberger, B. (1996). Religious fundamentalism, right wing authoritarianism, and hostility in non-Christian religious groups. *International Journal for the Psychology of Religion, 6*, 39-49.
- Kelly, J. A., St. Lawrence, J. S., Smith, S., Hood, H. V., & Cook, D. J. (1987). Stigmatization of AIDS patients by physicians. *American Journal of Public Health, 77*, 789-791.
- Laythe, B., Finkel, D. C., Bringle, R. G., & Kirkpatrick, L. A. (2002). Religious fundamentalism as a predictor of prejudice: A two-component model. *Journal for the Scientific Study of Religion, 41*, 623-635.
- Leary, M. R., & Schreindorfer, L. S. (1998). The stigmatization of HIV and AIDS: Rubbing salt in the wound. In V. J. Derlega, & A. P. Barbee (Eds.), *HIV and social interaction* (pp. 12-29). Thousand Oaks, CA: Sage.
- Lichtman, R. R. (1982). *Close relationships after breast cancer*. Unpublished doctoral dissertation, University of California, Los Angeles.
- McAllister, M. P. (1992). AIDS, medicalization, and the news media. In T. Edgar, M. A. Fitzpatrick, and V. S. Freimuth (Eds.), *AIDS: A communication perspective* (pp. 195-221). Hillsdale, NJ: Lawrence Erlbaum Associates.
- O'Donell, L., O'Donell, C. R., Pleck, J. H., Snarey, J., & Rose, R. M. (1987). Psychosocial responses of hospital workers to acquired immune deficiency syndrome (AIDS). *Journal of Applied Social Psychology, 17*, 269-285.
- Price, D., Terry, R., & Johnston, C. (1980). The measurement of preaching and preaching plus small group dialogue in one Baptist church. *Journal for the Scientific Study of Religion, 19*, 186-197.
- Pryor, J. B., Reeder, G. D., & McManus, J. A. (1991). Fear and loathing in the workplace: Reactions to AIDS-infected coworkers. *Personality and Social Psychology Bulletin, 17*, 133-139.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Romano, R. M. (1986). The Cancer Prevention Awareness Program: Approaching public understanding with good news. In D. S. Leather, G. B. Hastings, K. O'Reilly, & J. K. Davies (Eds.), *Health education and the media II*. Oxford: Pergamon.
- Sachdev, I., & Bourhis, R. Y. (1991). Power and status differentials in minority and majority group relations. *European Journal of Social Psychology, 21*, 1-24.
- Skarzynska, K., & Gientka, J. (1999). Is authoritarianism a form of collectivism? Authoritarianism and the attitude and social behavior of students. *Studia Psychologiczne, 37*, 115-131.
- Stahly, G. (1988). Psychosocial aspects of the stigma of cancer: An overview. *Journal of Psychosocial Oncology, 6*(3/4), 3-27.
- St. Lawrence, J. S., Husfeldt, B. A., Kelly, J. A., Hood, H. V., & Smith, S. (1990). The stigma of AIDS: Fear of disease and prejudice toward gay men. *Journal of Homosexuality, 19*, 85-101.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology, 33*, 1-30.
- Tajfel, H. & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-48). Pacific Grove, CA: Brooks/Cole.



- Tempelaar, R., De Haes J. C., De Ruiter, J. H., Bakker, D., Van den Heuvel, W. J. A., & Van Nieuwenhuijzen, M. G. (1989). The social experiences of cancer patients under treatment: A comparative study. *Social Science & Medicine*, 29, 635-642.
- Triplet, R. G., & Sugarman, D. B. (1987). Reactions to AIDS victims: Ambiguity breeds contempt. *Personality and Social Psychology Bulletin*, 13, 265-274.
- Wheless, V. E., & Dierks-Stewart, K. (1981). The psychometric properties of the Bem Sex-Role Inventory. *Communication Quarterly*, 29, 173-186.
- Worchel, S., Cooper, J., & Goethals, G. R. (1988). *Understanding social psychology* (4th ed.). Chicago: Dorsey.
- Wortman, C. B., & Dunkel-Schetter, C. (1979). Interpersonal relationships and cancer: A theoretical analysis. *Journal of Social Issues*, 35, 120-155.
- Wylie, L., & Forest, J. (1992). Religious fundamentalism, right wing authoritarianism and prejudice. *Psychological reports*, 71, 1291-1298.
- Zemore, R., Rinholm, J., Shepel, L., & Richards, M. (1990). Some social and emotional consequences of breast cancer and mastectomy: A content analysis of 87 interviews. *Journal of Psychosocial Oncology*, 7(4), 33-45.

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