

ILLNESS TRANSMISSION MODE AND PERCEIVER PERSONALITY: FACTORS AFFECTING STIGMATIZED PERCEPTIONS OF PATIENTS AND SEXUAL ILLNESS

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Past field research has demonstrated the devastating impact of illness stigma on patient populations; experimental studies have identified specific illness characteristics that influence stigmatization and social rejection of patients. The current study used a quasi-experimental design to investigate the influence of participant erotophobia-erotophilia (Fisher, Byrne, & White, 1983) and illness transmission (nonsexual, sexual) on perceptions of illness and patients. Sexual illness transmission led to significantly more negative perceptions of the illness and patient. A significant Erotophobia-Erotophilia x Nonsexual-Sexual Transmission interaction influenced participants' social rejection of the patient. Specifically, erotophobes socially rejected patients with the sexually transmitted illness more than patients with the nonsexual illness.

Keywords: stigmatization, illness perceptions, erotophobia-erotophilia, social rejection, perception of patients, illness transmission, sexual illness.

Jones et al. (1984) defined *stigma* as *possessing an attribute or trait that makes a person "deviant, flawed, limited... or generally undesirable"* (p. 6). Illness conditions fulfill this definition as they evidence physical limitations and defects (Fife & Wright, 2000). In fact, illness stigmas have a pervasive impact on patient populations contributing to depression, anxiety, and low self-esteem, as well as social rejection and isolation (Crandall & Coleman, 1992; Fife & Wright, 2000; Wright, 1983). Stigmas are similar to stereotypes in that they can

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be used to enhance and protect the self-image of perceivers, and stigmatization may increase when an individual feels threatened in some way (for review, see Stangor & Crandall, 2000). Similarly, presence of diseased individuals may trigger stigmatized reactions designed to increase distance from the diseased individual and thereby protecting other individuals and the broader social group (Kurzban & Leary, 2001; Park, Faulkner, & Schaller, 2003).

FACTORS AFFECTING ILLNESS STIGMA

Physical illness characteristics identified as contributing to stigmatized reactions include origin, disruptiveness, and peril, as well as contagiousness and severity (Crandall & Moriarty, 1995; Jones et al., 1984). Several studies have demonstrated that patients with greater control over illness onset experience greater rejection from others (Crandall & Moriarty, 1995; Meyerowitz, Williams, & Gessner, 1987). Other research found participants anticipated greater negative feelings and responses when they imagined having an illness caused by controllable rather than uncontrollable factors (Senior, Weinman, & Marteau, 2002). Perceivers' anxiety, anger, and irritation contributes to social rejection and avoidance of diseased others (Dijker & Koomen, 2003; Dijker & Raeijmaekers, 1999; Weiner, Perry, & Magnussen, 1988).

SEXUALLY TRANSMITTED INFECTION AND STIGMA

Research examining social rejection and sexual illness has focused overwhelmingly on HIV/AIDS. Given the severity of HIV/AIDS and the relationship between perceived contagiousness and stigma, it is not surprising that research has focused on those experiencing the disease. Rozin, Markwith, and McCauley (1994) suggested perceivers' fear of association or misidentification with HIV/AIDS resulted in negative reactions toward patients. Using experimental methodology to manipulate mode of transmission, Crandall (1991) demonstrated that level of AIDS stigma was greatest when linked to sexual or drug-related transmission as compared to blood transfusion or exposure to infected substances. This study demonstrated that manipulation of stated illness transmission mode influenced perceivers' level of stigmatization for actual illness conditions. Similarly, stigmatization and fear of association also influences the lives of those experiencing other sexually transmitted infections (STIs).

According to the Surgeon General's Call to Action (Satcher, 2001) in the United States, STIs account for "five of the ten most commonly reported infectious illnesses." Estimates indicate that STIs affect an estimated 12 million individuals each year (Satcher, 2001). STI rates are disproportionately higher in the US compared to other developed nations, however STI rates continue to increase in Britain and Eastern Europe (Panchaud, Singh, Feivelson, & Darroch, 2000; HIV/STI Division, 2002). Although most people feel invulnerable to STIs,

statistics show the number of people affected by sexual illness stigmatization is staggering. Once diagnosed, patients typically react with a sense of shame and self-disgust (Duncan, Hart, Scoular, & Bigrigg, 2001). Nack (2000) found that in order to limit social rejection, female participants with an STI tried “passing” as healthy among family and friends. Perceived negative consequences, such as social rejection, are among the most common reasons for delaying preventive screenings and treatment (Barth, Cook, Downs, Switzer, & Fischhoff, 2002; Fortenberry et al., 2002). STI stigmatization has powerful implications not only for mental health outcomes, but also for physical health outcomes of patients and transmission of infection to others.

PERSONALITY AND STIGMATIZATION

From the review above, we can conclude that STIs possess a number of illness characteristics that make them especially stigmatizing. The role of perceiver characteristics, such as personality, in illness stigmatization has been unexamined in the past literature. Erotophobia, a persistent tendency to respond to sexual cues with anxiety and negative emotions (Byrne, 1977), has been found to influence sexual attitudes and behaviors. Individuals with negative associations with sexuality (i.e., erotophobes) are generally less likely to use effective contraception, and more likely to adopt homophobic attitudes and traditional gender roles compared with those with positive associations (i.e., erotophiles; Fisher, Byrne, & White, 1983; Fisher, Byrne, White, & Kelley, 1988). One explanation for the relation between erotophobia and sexual behaviors is cognitive or perceptual interference. Specifically, Byrne (1983) theorized that erotophobia interferes with cognitive processing of sex-related information and decisions. After finding that women with high sex guilt had more difficulty recalling sexually related materials, Lewis, Gibbons, and Gerrard (1986) suggested that erotophobia interfered with participants' ability to process information. Similarly, Smith, Hedges, Gerrard, and Gibbons (1996) demonstrated that erotophobes and erotophiles differ in their schematic representations of sexual concepts, and that these differences may disrupt the processing of sexually related cognitions.

One goal of the current study was to extend findings demonstrating that erotophobia-erotophilia influenced cognitive and perceptual processing of sexually relevant information. Using a quasi-experimental design, we examined how erotophobia influenced stigmatized perceptions (of illness and patients experiencing illness) and social rejection directed toward patients experiencing a fictitious illness. This methodology allowed us to build upon past field and experimental work by extending the investigation of stigmatization beyond that of actual illnesses (where illness-specific stereotypes may influence stigmatization). We predicted an illness transmission mode (nonsexual transmission/NT, sexual transmission/ST) main effect, such that the ST condition would lead to more

negative perceptions of the illness and those experiencing the illness, and greater levels of social rejection directed toward the patient as compared to the NT illness. We also predicted an interaction between erotophobia-erotophilia and illness transmission mode. Specifically, we hypothesized erotophobes would have more negative perceptions of the ST illness and the patient experiencing the ST condition, and would express greater willingness to socially reject the patient experiencing the ST condition compared to the NT condition. These hypotheses are consistent with past research on erotophobia-erotophilia and extend those findings to suggest that negative attitudes toward sexuality can in some instances impact not only on self-relevant attitudes but also on perceptions of others.

METHOD

PARTICIPANTS

Participants included 154 college Caucasian students from a small liberal arts college who completed the Sexual Opinion Survey (SOS; Fisher et al., 1983). The SOS had high internal consistency; in this study, the alpha coefficient was .88 for males and .90 for females. Consistent with past research methodology, from this original sample we identified individuals as erotophobe and erotophile using gender-specific lower and upper thirds on the SOS distribution (48 erotophobe and 54 erotophile participants). The lower third cutoff scores were 64 and 44, whereas the upper third cutoff scores were 83 and 58, for male and female participants respectively. Participants passed two manipulation checks (identifying the correct illness transmission mode and reporting the noncontagious state of the illness). Participants' median age was 19 years old, and the modal year in college was first year.

MATERIALS AND PROCEDURE

After completing an informed consent statement, participants received a fictitious "patient file" including a physician's summary of an interaction with the patient resulting in diagnosis of a medical illness. The patient files contained the same description of personal characteristics, as well as reported initial and secondary symptoms of the illness (i.e., "tenderness and fullness of the abdomen, fatigue, and blistered lesions"; contact the first author to receive a copy of materials). We created two versions of the patient file varying illness transmission mode; participants read a file stating that the illness was transmitted through nonsexual contact (NT, $n = 44$) or that the illness was sexually transmitted (ST, $n = 58$). In order to control for the effect of contagion on stigmatization, both versions stated the illness was "no longer contagious".

After reading the patient file, participants completed a questionnaire including manipulation checks, perceptions of the illness condition and those experiencing

the illness, and items assessing social rejection of the patient. Participants rated their perception of the illness on two questions: overall perception of the illness (1 = *very positive perception*, 9 = *very negative perception*), and illness severity (1 = *not at all serious*, 9 = *extremely serious*). Participants rated their overall perceptions of "those experiencing the illness" (1 = *very positive perception*, 9 = *very negative perception*). Social rejection items were adapted from Crandall and Moriarty (1995), and included seven items assessing willingness to interact with the patient in social roles and contexts (e.g., as a neighbor, roommate, close friend; 1 = *strongly disagree*, 7 = *strongly agree*). We created a social rejection scale with higher scores indicating greater willingness to reject the patient (overall $M = 23.10$, $SD = 6.61$; Cronbach's $\alpha = .78$).

RESULTS

Two (Erotophobia, Erotophilia) \times 2 (Nonsexual, Sexual Transmission) between-subject ANOVAs were conducted on the dependent variables. The perception of the illness was significantly more negative in the ST condition ($M = 6.48$, $SD = 1.43$), as compared to the NT condition ($M = 5.45$, $SD = 1.78$; $F(1, 98) = 10.63$, $p < .01$). The illness was also perceived as more severe in the ST condition ($M = 5.90$, $SD = 1.50$), than in the NT condition ($M = 4.91$, $SD = 1.54$; $F(1, 98) = 9.31$, $p < .01$). Perceptions of the patient experiencing the ST condition were significantly more negative than those experiencing the NT condition (ST, $M = 5.12$, $SD = 1.49$; NT, $M = 4.39$, $SD = 1.54$; $F(1, 98) = 4.93$, $p < .03$). There was no main effect for erotophobia-erotophilia or interaction effect for any of these variables.

Neither illness transmission mode nor erotophobia-erotophilia had a significant main effect on the social rejection scale. Social rejection, however, was influenced by a significant two-way interaction ($F(1, 97) = 4.08$, $p < .05$). *T*-test analyses to compare the cell means demonstrated that erotophobes expressed significantly more willingness to socially reject the patient with the ST condition ($M = 25.86$, $SD = 7.28$) than the NT condition ($M = 20.96$, $SD = 5.95$). Erotophiles did not differentiate between patients with ST or NT conditions in terms of social rejection (ST, $M = 23.57$, $SD = 6.50$; NT, $M = 24.21$, $SD = 7.38$).

DISCUSSION

Whereas past field and experimental research documented the fact that contagiousness and severity of illness conditions influence stigmatization (Crandall & Moriarty, 1995; Jones et al., 1984), the current study further demonstrated that sexual transmission uniquely influences stigmatization. Using a quasi-experimental design, we held illness characteristics such as

symptoms, severity of prognosis, and contagiousness constant, varying only transmission mode to demonstrate pervasive stigmatization associated with sexual transmission. Participants rated the ST illness as more negative and severe than the NT illness. The experimental manipulation of transmission mode leads us to conclude that the sexual nature of the illness is a powerful determinant of evaluative reactions to illness. Our use of a fictitious illness reduces the likelihood that specific illness stereotypes or prior experiences affected the results.

Transmission mode also influenced perceptions of patients such that participants rated patients more negatively when described as having an ST illness rather than an NT illness. Participants may have attributed more behavioral “control” and thus blame in the ST illness condition because of the link between sexual behaviors and obtaining an illness (although the patients with NT clearly exposed themselves to contagion, participants may have perceived that exposure as less intentional than sexual contact). These findings are consistent with past research demonstrating stigmatization increases when illness onset is behaviorally related (Crandall & Moriarty, 1995; Meyerowitz et al., 1987). Transmission mode did not have a main effect on social rejection of the fictitious patient, however. These findings suggest that participants, in general, perceived those with an STI more negatively but they were not willing to reject a particular patient.

Although we predicted that an Erotophobia-Erotophilia x Illness Transmission Mode interaction would also affect perceptions of the illness and those experiencing the illness, we failed to document the interaction on these variables. However, the interaction influenced social rejection directed towards the patient. Erotophobes’ social rejection scores were significantly higher when the fictitious patient had an STI rather than a nonsexual infection, demonstrating that erotophobia-erotophilia influences not only self-perceptions and cognitions but also their emotional reactions to others experiencing STI.

The nature of the stigmatized perception and social rejection variables may help explain why our findings yielded mixed results in documenting the interaction on social rejection but not on stigmatized perceptions. Variables such as the overall perception of the illness and those experiencing the illness are likely to arouse an evaluative reaction on the part of participants. Social rejection, on the other hand, reflects a personal willingness to interact with the patient. Therefore, this measure is likely to arouse an emotional reaction or feeling of threat on the part of those uncomfortable with sexuality. Although the levels of stigmatization and social rejection were not at the highest end of their respective scales, any difference in these variables is notable due to the controlled experimental manipulation of the illness characteristics and patient descriptions. In addition, social desirability may have adversely affected our ability to demonstrate higher levels of rejection and negative perceptions. Our

measures required that participants admit to a variety of undesirable attitudes and behaviors directed at those experiencing illness; admission of negative attitudes on these scales therefore was likely to be conservative.

The findings of the current study reinforce the need for educational interventions such as those outlined in the Surgeon General's Call to Action (Satcher, 2001). Specifically, we need well informed and open discussions about health and recognition of the interrelationships between sexuality, physical health, and mental health. The social rejection and stigmatization experienced by patients are similar in some ways to stigma experienced by sexual assault survivors. In both cases, there may be a tendency to "blame the victim," and the victims themselves may feel a strong sense of shame and isolation. Social education discussing rape mythology and "blaming the victim" affects social attitudes towards sexual assault (Foubert, 2000). In a similar fashion, frank discussion about healthy sexuality, sexual illness transmission, and the social rejection processes may reduce stigmatization of patients diagnosed with sexually transmitted infections.

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