

**The association between the hostile-world scenario, perceived control and  
emotional distress among gay men and lesbian women**

Matan Zisman<sup>a</sup> BA, Reut Bloom<sup>a</sup> BA

<sup>a</sup>School of Psychology, Interdisciplinary Center (IDC), Herzliya, Israel

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Correspondence: Ora Nakash, School of Psychology, Interdisciplinary Center (IDC)

Herzliya, P.O.Box 167, Herzliya, 46150, Israel. Email address: [onakash@idc.ac.il](mailto:onakash@idc.ac.il);

Tel.: 972-9-9602888; Fax: 972-9-9602845.

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## ABSTRACT

We examined the moderating role perceived control plays in the relationship between the hostile-world scenario unique to gay men and lesbian women and emotional distress. Eighty-two gay and lesbian participants who were recruited online through snowball sampling completed questionnaires examining emotional distress, perceived control and hostile-world themes unique to the gay community. The hostile-world scenario was significantly positively associated with emotional distress. Additionally, only among lesbian women, perceived control moderated the relationship between the hostile-world scenario and emotional distress. Perceived control may provide a resilience factor against the effect of the hostile-world scenario on emotional distress among lesbian women.

Keywords: The hostile-world scenario, Gays and lesbians, Perceived control, Emotional distress

## The association between the hostile-world scenario, perceived control and emotional distress among gay men and lesbian women

Gay, lesbian, transgender and bisexual (LGBT) individuals, similar to members of other minority groups may be exposed to chronic stress and discrimination stemming from social stigma in predominantly heterosexual societies (Meyer, 1995). According to Meyer (2003), minority stress, described as psychological stress arising from belonging to a disadvantaged social group, is defined by four factors: the internalization of homophobia, stigmas, prejudice and concealing sexual identity. The persistent conflict between the individual's culture, needs and experiences and the social structures and norms may be emotionally exhausting. For example, gay married men often struggle with the lack of institutional support through the process of establishing family life, contrary to heterosexual married couples, who are part of the dominant group in society (Meyer, 2003). Minority stress can have aversive mental health consequences to the gay and lesbian individual, with studies documenting increased prevalence of mood and anxiety disorders (Cochran, Sullivan, & Mays, 2003; Shenkman & Shmotkin, 2010); alcohol and substance abuse (Cochran, Ackerman, Mays, & Ross, 2004); sexual risk behaviors (Dudley, Rostosky, Korfhage, & Zimmerman, 2004) and suicide (Remafedi, 2002) relative to the general population.

In this line, recent studies documented that the hostile-world scenario, which manifest perceived representations of risk to the physical and mental integrity of the person, is more severe among minorities that suffer from stigma, including members of the LGBT community (Shenkman & Shmotkin, 2013).

## THE HOSTILE-WORLD SCENARIO

The hostile-world scenario includes representations of distress that are often fed by beliefs about potential disasters and pain (Shmotkin, 2005). These representations function as an assessment system that operates on an ongoing basis and scans for potential negative situations, or alternatively, for even more catastrophic situations after a negative situation already occurs. According to Shmotkin's model (2005), subjective well-being and the hostile-world scenario are conceived as reciprocally regulatory systems allowing individuals to constitute a favorable psychological environment despite the threats that normally persist in their lives. When the hostile-world scenario acts in an adaptive manner, it fosters vigilance and caution to maintain the individual's sense of security and adjustment. Yet, when the hostile-world scenario acts in an extreme manner, it activates a survival mode in a seemingly catastrophic world that is manifested in preoccupation with the negative life events (Shmotkin & Shrira, 2012).

Member of LGBT group can be prone to extreme hostile-world scenarios due to their increased exposure to negative life events. These negative events include difficulties in self-acceptance of one's sexual orientation (Martin, 1982), a feeling of defectiveness and unsuitability to the environment due to homophobic and heterosexist social norms (Herdt, 1989; King & Noelle, 2005; Plummer, 1989), lack of family support (D'augelli, Hershberger, & Pilkington, 1998; Remafedi, 1987; Rotheram-Borus, Hunter, & Rosario, 1994; Strommen, 1989), abusive and harmful treatment by peers and family members (Finkelhor & Dzuiba-Leatherman, 1994; Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998; Harry, 1989; Hunter, 1990; Russell, Franz, & Driscoll, 2001) as well as risk of exposure to violence, including sexual abuse (Berrill, 1990; Bradford, Ryan, & Rothblum, 1994). Other adversities

include fear of being infected with HIV after practicing unprotected sexual activity (Kegeles, Hayes, & Coates, 1996; Rosario, Schrimshaw, & Hunter, 2006; Silvestre et al., 1993), internalization of homophobia (Ryan & Futterman, 1998), involvement in relationships that do not receive government legitimization and therefore are not entitled to the rights granted to heterosexual couples (Herek, 2006) and workplace discrimination (Kimmel & Sang, 1995).

In a recent study, Shenkman and Shmotkin (2013) identified unique themes within the hostile-world scenario concept among gay and lesbian adolescents and young adults. Compared to heterosexuals, gay men and lesbian women were more concerned with hostile-world scenario themes of victimization (by crime and discrimination), lack of social and family support, poor health condition, disrupted relationships, and aging. Therefore, the hostile-world scenario, which represents a meaningful structure of stress factors, may be more severe among marginalized minority groups, including members of the LGBT group. Although, perceptions and expectations of negative life events characterized by a unique hostile-world scenario were significantly associated with emotional distress among LGBT (Cochran et al., 2004; Cochran et al., 2003; Dudley et al., 2004; Remafedi, 2002), the role of possible variables such as perceived control in moderating this relationship remain unexplored.

#### PERCIEVED CONTROL AND EMOTIONAL DISTRESS

Perceived control refers to the extent to which the individual feels that he has control over his life (Thompson et al., 2006). Consistent findings have documented that decline in perceived control following exposure to negative life events was associated with elevated emotional distress, while maintenance of high sense of control was positively related to psychological adjustment (Frazier, Mortensen, & Steward, 2005).

For example, Thompson et al. (2006) found that among the general population in the United States, after the events of September 11, higher perceived control was associated with lower emotional distress. Similarly, among women who had survived sexual assault, increased sense of perceived control during the process of recovery was related to lower emotional distress (Frazier, Mortensen & Steward, 2005).

Among members of socially disadvantaged groups, such as ethnic minorities and immigrants, perceived control served as a moderating variable in the relationship between negative life events such as exposure to discrimination and emotional distress (Moradi & Hasan, 2004). For example, Lincoln, Chatters and Taylor (2003) reported that among African-American adults, perceived control was a moderating factor in the relationship between negative experiences including interpersonal relationships with family members and symptoms of depression. Similarly, perceived control and other variables such as belief in a fair world served as moderators in the impact of discrimination related to sexual orientation and health status (Fischer & Bolton Holz, 2010). For example, sexual orientation discrimination impacted ones believe in a fair world, which ultimately led to a decrease in the individual's sense of perceived control, causing increased depression, anxiety and a general reduction in emotional-wellbeing (Fischer & Bolton Holz, 2010).

## THE PRESENT STUDY

In sum, past research has consistently documented the negative association between perceived control and emotional distress. Additionally, in the context of the LGBT community, it was found that a higher perceived control is generally related to improved psychological adjustment (Anderson, 1998; Binks, 1993; Isikoff, 1983). In the current study we investigated the role of perceived control in the relationship

between exposure to negative life events, in the context of the hostile-world scenarios and emotional distress among gay men and lesbian women.

We hypothesized that perceived control will moderate the association between the hostile-world scenario unique to the LGBT community, composed of themes related to victimization (by crime and discrimination), lack of social and family support, poor health condition, disrupted relationships, and aging, and emotional distress.

## METHOD

### Participants

Participants included a sample of  $N = 82$  (54 men and 28 women) with ages ranging from 18 to 42 years ( $M = 26.7$ ,  $SD = 5.2$ ). Participants reported average of 12.9 years of education ( $SD=1.7$ ). Majority of participants were single (75.6%), with lower than annual median salary (73.4%). All participants reported homosexual sexual orientation and most participant reported being "out of the closet" (80.5%).

### Measures

*Socio-demographic questionnaire.* A self-report questionnaire was used to collect socio-demographic information, which included items concerning gender, age, country of birth, family status, education, income, religiosity and sexual orientation (on a continuum 1- only homosexual to 5-mainly heterosexual).

*The Hostile-World Scenario Questionnaire (Shmotkin, 2005).* This questionnaire was designed to measure the image of actual or potential self-perceived threats to one's life or integrity (Shmotkin, 2005). The measure consists of 72 items distilled from in-depth interviews focusing on beliefs concerning the hostile-world scenario. These items depict critical threats to the individual's life conditions (health, significant relationships, work and economic status) as well as possible encounters

with harsh inflictions (war, terrorism, crime, disasters) and life outcomes (aging and death). In the current study, we used 25 items that were identified as representative of the relevant themes within the hostile-world scenario among lesbian and gay adolescents and young adults, and that were found to raise more concern among gays and lesbians compared to matched heterosexuals (Shenkman & Shmotkin, 2013). Items indicated either a negative engagement with hostile-world scenario representations (e.g., “I often think about my own death”) or a positive engagement with hostile-world scenario representations (e.g., “I am not afraid of growing old”). Each item was rated on a 5-points Likert-scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). Participant's responses were summed into a single overall score, with higher score indicating more extreme hostile-world scenario. The current questionnaire was previously found in homosexual population sample to have high reliability and validity (Shenkman & Shmotkin, 2013). In the current study, internal reliability for this measure was good (Cronbach's  $\alpha = .75$ ).

*Perceived Control Measure (Savla et al., 2013).* This questionnaire assesses the psychosocial resource of perceived control. Perceived control was constructed based on the mean of a 5-item scale combining two personal mastery items (e.g., “I can do just about anything I really set my mind to) and three perceived constraints items (e.g., “There is little I can do to change the important things in my life.”). Each item was rated on a 7-points Likert-scale ranging from 1 (“strongly agree”) to 7 (“strongly disagree”). Selected items were reverse-coded so that the higher score represent greater perceived control. The current questionnaire was previously found to have high reliability and validity (Savla et al., 2013). In the current study, internal reliability for this measure was good (Cronbach's  $\alpha = .76$ ).

*General Health Questionnaire (GHQ-12: Goldberg, 1978)*. This measure includes a 12-item scale that screens for common mental disorders and measures emotional distress. Items are rated on a 4-point Likert scale, ranging from 1 (“always”) to 4 (“never”). Final measure computed by summing all items and scores range from 12 to 48, with higher scores indicating increased emotional distress. Examples of questions are, “Have you recently been able to manage your problems?” and “Have you recently been able to concentrate on whatever you are doing?”. The current questionnaire was previously found to have high reliability and validity (Goldberg et al., 1997; Nakash et al., 2014). In the current study, internal reliability for this measure was good (Cronbach's  $\alpha = .87$ ).

#### Procedure

Participants were recruited through snow-ball sampling using social network websites (Facebook groups of gays and lesbians only). A link to an online survey was sent to participants who volunteered to take part in the study. Participants were informed that the study deals with experiences that relate to group affiliation. In addition, it was emphasized that participation in the study is anonymous and that they could stop their participation at any point. Following the completion of an informed consent form, each participant completed several measures assessing emotional distress, perceived control and the Hostile-World Scenario Questionnaire. Measures were administered in a counterbalanced order. Finally, participants completed a short demographic questionnaire. Completion of all measures took approximately 10 minutes. All study procedures were approved by the ethical committee of the Interdisciplinary Center, Herzliya.

## RESULTS

### Sample Characteristics

Socio-demographic characteristics of participants by gender are presented in Table 1. Significantly more men than women were native Israelis. There were no other significant gender differences in socio-demographic variables.

#### The Effect of the Hostile-World Scenario and Perceived Control on Emotional Distress

Three independent samples t-tests were computed in order to examine the differences between gay men and lesbian women in emotional distress, the hostile-world scenario and perceived control scores. Bonfferoni correction for multiple comparisons was applied ( $\alpha=0.015$ ). Results of the analyses are presented in Table 2. There were no significance differences between men and women on any of the examined variables.

Pearson's  $r$  analyses were computed in order to examine the correlation between emotional distress, the hostile-world scenario and perceived control. Results showed that the hostile-world scenario was positively correlated with emotional distress ( $r(81)=.50, p<.001$ ), such that higher scores in the hostile-world scenario were associated with higher scores on GHQ-12. Additionally, perceived control was negatively correlated with emotional distress ( $r(82)=-.58, p<.001$ ), such that higher scores in perceived control were associated lower scores on GHQ-12. Finally, the hostile-world scenario was positively associated with perceived control ( $r(81)=.65, p<.001$ ), such that higher scores in the hostile-world scenario were associated with lower perceived control.

In order to examine the combined effect of perceived control, the hostile-world scenario and gender on overall emotional distress, while controlling for the possible effect of socio-demographic variables (gender, age, and sexual orientation), hierarchical linear regression (four blocks) was computed. Emotional distress was

entered as the outcome measure, and gender, age, sexual orientation (first block), the hostile-world scenario and perceived control (second block), perceived control x gender interactions (third block)<sup>1</sup>, and the hostile-world scenario x perceived control x gender interaction (fourth block) as predictor variables. The analysis revealed significance results, predicting 46% of the variance in emotional distress. As can be seen in Table 3, participants' scores on perceived control were related to emotional distress, such that higher reports of perceived control were related to lower GHQ-12 scores (partial  $r = -.31$ ,  $p < .01$ ). However, while the interaction between the hostile-world scenario x gender was not related to GHQ, the interaction between perceived control x gender was negatively related to GHQ scores (partial  $r = -.25$ ,  $p < .05$ ). Finally, the interaction between gender x the hostile-world scenario x perceived control was related to GHQ higher score (partial  $r = .28$ ,  $p < .05$ ). Estimates from the model are presented in Table 3.

In order to examine the source of the interaction two hierarchical linear regressions were computed separately for men and women. In both regressions emotional distress was entered as the outcome measure, and age, sexual orientation (first block), the hostile-world scenario, perceived control (second block), and the hostile-world scenario x perceived control interaction (third block). For women the third block explained a significant increase in variance in emotional distress,  $\Delta R^2 = .10$ ,  $F(1, 21) = 5.83$ ,  $p < .05$ , indicating a moderating effect for perceived control in the relationship between the hostile-world scenario and emotional distress. The unstandardized simple slope for women participants 1 SD below the mean of perceived control was 9.2, and the unstandardized simple slope for women participants 1 SD above the mean of perceived control was -0.8 (see Figure 1).

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<sup>1</sup> Interaction between hostile-world scenario and perceived control was not significantly related to emotional distress, and thus was removed from the final model.

For men, the third block did not significantly contributed to the variance in emotional distress,  $\Delta R^2 = .00$ ,  $F(1, 46) = .14$ , *ns*. Thus, perceived control was not a significant moderator in the relationship between the hostile-world scenario and emotional distress among gay men. The unstandardized simple slope for men participants 1 SD below the mean of perceived control was 3.7, and the unstandardized simple slope for men participants 1 SD above the mean of perceived control was 2.5 (see Figure 2).

## DISCUSSION

In the current study we investigated the role of perceived control in the relationship between the hostile-world scenarios, unique to the gay and lesbian community, and emotional distress. Our results showed that the hostile-world scenarios were significantly associated with emotional distress. When gays and lesbians had more extreme themes of a unique hostile-world scenario, they also reported a higher level of emotional distress. This finding expands past research which showed that compared to heterosexuals, members of the gay and lesbian community have higher prevalence of emotional distress (Cochran et al., 2004; Cochran et al., 2003; Dudley et al., 2004; Remafedi, 2002) to show that this distress is also associated with representations of distress that are often fed by beliefs about potential disasters.

More importantly, our research indicates that among lesbian women, perceived control had served as a significant moderator in the relationship between the hostile-world scenario and emotional distress. Among women who reported high perceived control, emotional distress was relatively low and the hostile-world scenario was not correlated with emotional distress. Among women who reported low perceived control, extreme hostile-world scenario correlated with higher emotional

distress. In other words, perceived control may provide a resilience factor against the effect of the hostile-world scenario on emotional distress among lesbian women.

Interestingly, no significant moderation effect of perceived control on the relationship between the hostile-world scenario and emotional distress was observed among gay men.

Based on the minority stress theory, it is conceivable that individuals in double minority groups (such as lesbian women) will experience additional psychological stress beyond that which is experienced by individuals who are members of a single minority group (based on either gender or sexual orientation). This double jeopardy (Ferraro & Farmer, 1996) may explain our finding regarding gender differences in the impact of the perceived control variable in the relationship between the hostile-world scenario and emotional distress. Another possible explanation for this moderation effect, found only among lesbian women, relates to the intersection between gender role socialization, depression vulnerability, and sexual orientation. It seems that catastrophic anticipations and gloomy thinking mainly characterize young lesbian women while themes of victimization and health concerns mainly characterize young gay men (Shenkman & Shmotkin, 2013). This catastrophic anticipations among lesbian women along with established epidemiologic findings that mark women in general as more vulnerable to depression than men (Kessler, 2003), portray the possible importance of perceived control as a meaningful player within the association between the hostile-world scenario and emotional distress. Gender role socialization may even augment the importance of perceived control in this complex interplay as society many times socialize women to less sense of control compared to men.

These findings expands past research showing that among minority groups, perceived control moderated the relationship between negative life events and emotional distress (Fischer & Bolton Holz, 2010; Lincoln et al., 2003; Moradi & Hasan, 2004). Furthermore, although high perceived control was generally related to better psychological adjustment among the LGBT community (Anderson, 1998; Binks, 1993; Isikoff, 1983), the current research provides a unique contribution indicating that high perceived control may serve as an important resilience factor for lesbian women in the impact negative world scenarios have on their emotional distress. This resilience factor joins other factors such social support and self-esteem that were found to moderate the relationship between internalized oppressions and psychological distress (Szymanski & Kashubeck-West, 2008).

This research has several limitations. First, the snowball sample recruited online that was used in the current study may be prone to selection bias. It is possible that recruitment was biased toward individuals who demonstrated high levels of self-disclosure as well as those who were more integrated in the gay and lesbian community. Notably, online studies have become more widely accepted with studies documenting non-detrimental impact on the reliability and validity of the findings (Vallejo, Jordán, Díaz, Comeche, & Ortega, 2007). Second, literature suggests that while women were found to suffer more than men from intrinsic emotional problems such as depression and anxiety, men were characterized as suffering more from extrinsic interferences, such as substance abuse (Avison & McAlpine, 1992; Gore, Aseltine Jr, & Colten, 1992; Kessler, 2003; Turner & Lloyd, 1995). Therefore, it is possible that the effect regarding the impact of the perceived control variable in the relationship between the hostile-world scenario and emotional distress was found only

among women due to the inclusion of emotional distress as the outcome variable.

Future research should include extrinsic problems such as substance abuse.

Our findings highlight the importance of studying the complex relationship among, gender, sexual orientation and emotional distress. More specifically, perceived control may have a significant protective factor against emotional distress among the lesbian community. Future research should identify designated psychological tools that will support the sense of perceived control. In practice, alongside the need to keep promoting social change regarding the exposure of gay and lesbian individuals to minority stress, increasing their sense of perceived control over their lives may decrease concerns within the hostile-world themes unique to him/her, thus benefit their wellbeing and reduce their risk to develop emotional distress.

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**TABLE 1.** Socio-Demographic Characteristics of Participated by Gender (N=82).

Characteristic	Men <i>n</i> = 56	Women <i>n</i> = 31	Statistic
<b>Age (years);</b> mean (SD)	26.3 (4.9)	27.5 (5.8)	t(80)=-1.00, n.s.
<b>Country of birth</b>			$\chi^2(1) = 8.56, p < .01$
Israel	2 (3.7%)	7 (25.0%)	
Other	52 (96.3%)	21 (75.0%)	
<b>Years of education;</b> mean (SD)	12.9 (1.6)	13.30 (2.1)	t(78)=-0.46, n.s.
<b>Family status</b>			$\chi^2(3) = 2.92, n.s.$
Single	43 (79.6%)	19 (67.9%)	
Living with partner	9 (16.7%)	7 (25.0%)	
Married	1 (1.9%)	2 (7.1%)	
Separated	1 (1.9%)	0	
<b>Income</b>			$\chi^2(4) = 3.86, n.s.$
Much below average	23 (44.2%)	15 (55.6%)	
Below average	13 (25.0%)	7 (25.9%)	
Average	6 (11.5%)	4 (14.8%)	
Above average	7 (13.5%)	1 (3.7%)	
Much above average	3 (5.8%)	0	

**TABLE 2.** Means and Standard Deviations of Emotional distress, the Hostile-World Scenario and Perceived Control among Men and Women (N=82)

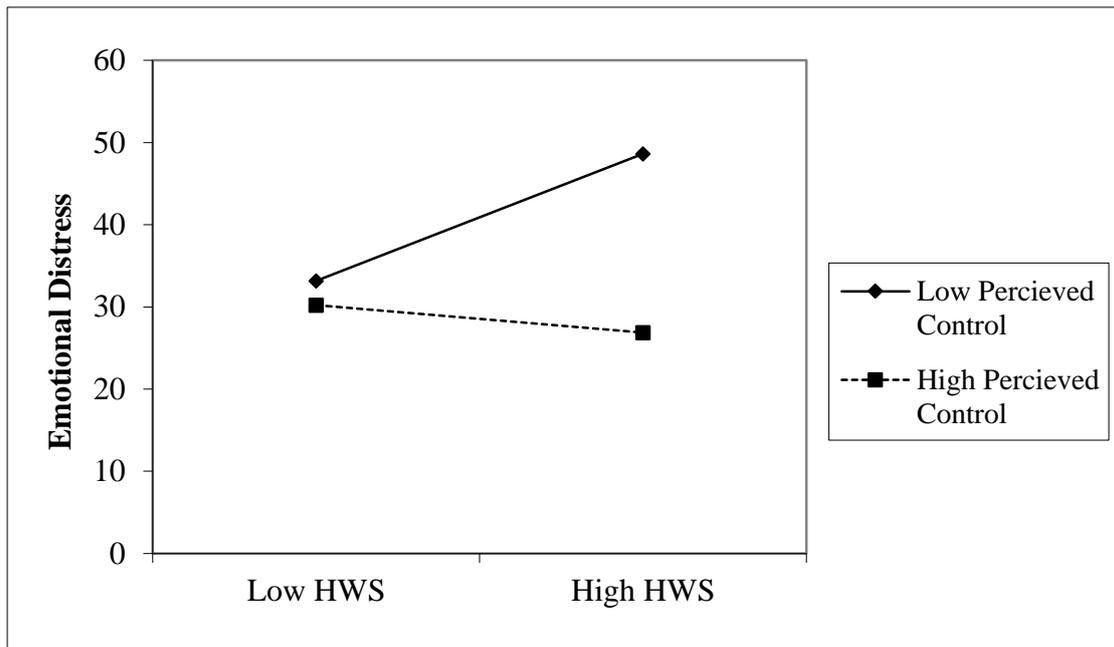
	Men <i>n</i> = 54	Women <i>n</i> = 28	Statistic
General Health Questionnaire	23.0 (5.5)	24.6 (7.4)	t(43)=-1.0, n.s.
The Hostile World Scenario	2.81 (0.4)	2.9 (0.5)	t(97)=0.56, n.s.
Perceived Control	5.6 (1.0)	5.2 (1.1)	t(80)=1.58, n.s.

**TABLE 3.** Hierarchical Linear Regression Examining Predictors of Emotional distress among Men and Women (n = 82)

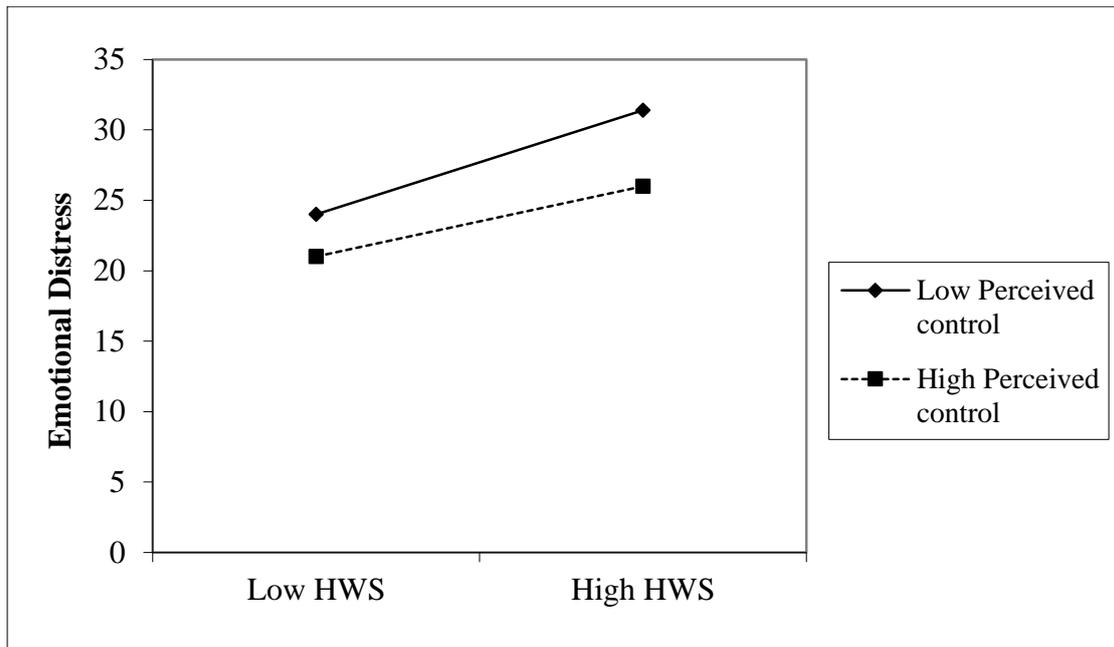
Model	B	SE B	$\beta$	Partial r
<b>Step 1</b>				
Constant	28.51	3.13		
Gender	1.76	1.37	.14	.15
Age	-.22	.11	-.18	-.23
Sexual orientation	.51	.60	.08	.10
<b>Step 2</b>				
Hostile-world scenario	3.00	1.94	.21	.18
Perceived control	-2.17	.80	-.36**	-.31
<b>Step 3</b>				
Hostile-world scenario x Gender	-5.50	3.98	-.26	-.16
Perceived control x Gender	-4.16	1.94	-.42*	-.25
<b>Step 4</b>				
Hostile-world scenario x Perceived control x Gender	4.62	1.87	.30*	.28

*Note.* For gender, men = 0, women = 1.  $R^2 = .46$ ,  $F(8, 72) = 7.78$ ,  $p < .001$

\*  $p < .05$ , \*\*  $p < .01$



**FIGURE 1.** Interaction Effect of the Hostile-World Scenario and Perceived Control on Emotional Distress among Lesbian Women.



**FIGURE 2.** Interaction effect of the Hostile-World Scenario and Perceived Control on Emotional Distress among Gay Men.