

The Impact of Partner Psychological Abuse on Health Behaviors and Health Status in College Women

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Previous research documents increased health problems, somatic complaints, and negative health behaviors among victims of physical and sexual violence. This study extended existing literature by examining the unique effects of partner psychological abuse on physical health and the moderating effects of approach and avoidance coping strategies. Psychological abuse was positively related to illegal drug use, physical and role limitations, negative health perceptions, and cognitive impairment in college women even after controlling for physical victimization. Psychological abuse was not related to sleep hygiene, exercise, problem drinking, or smoking. Approach coping moderated the effects of partner psychological abuse on binge drinking and health perceptions. Low approach coping was associated with more binge drinking and negative health perceptions as abuse increased; high approach coping did not show a significant relationship with binge drinking or health perceptions across levels of abuse. Avoidance coping showed only a trend as a moderator of illegal drugs.

Keywords: *psychological abuse; physical health; dating relationships; college women*

Partner psychological abuse has only recently begun to receive attention as a discrete entity that affects victims independently of physical abuse. Difficulty with operationalizing psychological abuse has been a major impediment to studying its outcomes, causes, and consequences (Follingstad, Rutledge, Berg, Hause, & Polek, 1990; Vitanza, Vogel, & Marshall, 1995). The tendency of investigators to focus their efforts on physical violence has also contributed to a lack of research in this area. Until recently, the more

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observable effects of physical abuse have drawn attention toward prevention efforts, and certainly the potential for life-threatening injuries deserves study (Arias, 1999). Psychological abuse, however, exacts a toll on victims that is just as damaging psychologically, if not more so, than that of physical abuse (Herbert, Silver, & Ellard, 1991). Psychological abuse significantly predicted post-traumatic stress disorder symptomatology in battered women, even after controlling for physical violence (Arias & Pape, 1999), and women in abusive relationships have identified psychological abuse as their primary source of distress (Vitanza et al., 1995). Further study of partner psychological abuse is important to better identify its victims and understand its unique impact on adjustment. Its study in a dating population is particularly important because psychological abuse is often a precursor to physical violence and patterns of abuse are typically established during the courtship phase (Murphy & O'Leary, 1989).

Research on victims of physical and sexual assault has highlighted the effects of interpersonal violence on health. Women with histories of severe sexual or physical victimization have reported poorer overall health and more somatic symptoms. They have also shown more frequent doctor visits and hospitalizations for medical procedures than nonvictims in samples both with and without comprehensive health care plans (Eby, Campbell, Sullivan, & Davidson, 1995; Kimerling & Calhoun, 1994; Koss, Koss, & Woodruff, 1991; Moeller, Bachmann, & Moeller, 1993). Health care costs have been found to be up to 92% higher for victims than nonvictims (Wisner, Gilmer, Saltzman, & Zink, 1999), and some studies suggest that these costs are over and above the acute effects of the violence itself (Kimerling & Calhoun, 1994; Koss et al., 1991). Trauma has also been related to an increase in health risk behaviors. In national surveys, a history of physical or sexual victimization was associated with increased smoking, alcohol problems, and illegal drug use (Acierno, Kilpatrick, Resnick, Saunders, & Best, 1996; Burnam, Stein, Golding, Siegel, Sorenson, Forsythe, & Telles, 1988; Kilpatrick, Acierno, Resnick, Saunders, & Best, 1997). For example, 18% of victims (compared with 2% of matched controls) reported drug abuse (Burnam et al., 1988), and 40% of victims (compared with 25% of nonvictims) were smokers (Acierno et al., 1996). Victims of physical and sexual assault also have more negative thoughts about their health, including greater dissatisfaction with their health and more negative perceptions of health (Kimerling & Calhoun, 1994; Koss et al., 1991). In a study of 50 battered women, Rodriguez (1989) found that only 40% of women rated their health positively, and women with a history of severe victimization were twice as likely to rate their health negatively as nonvictims (Plichta, 1996). Moreover, health perceptions have been positively related to increased service use among victims

(Golding, Stein, Siegel, Burnam, & Sorenson, 1988), which ultimately leads to increased health care costs.

Preliminary research on psychological abuse suggests that this type of interpersonal violence, similar to physical and sexual victimization, may have negative effects on victim health. In a sample of adult women, Marshall (1996) found that victims of recent or current partner psychological abuse reported a greater frequency of serious and chronic illnesses. Psychological abuse was also associated with an increase in service use and more use of psychotropic medications during the same time period. Similarly, in a cross-sectional study of intact families, psychological abuse among married women was linked to an increase in problem drinking (Arias, Street, & Brody, 1996). Although both studies indicate that psychological abuse has a negative impact on health outcomes in community samples, it is unclear if partner psychological abuse has similar health effects in younger dating populations. Furthermore, the effects of partner psychological abuse across a range of health behaviors (e.g., sleep, exercise, smoking, illegal drug use) and on the health status (e.g., physical limitations, role limitations) of victims have not been explored. These health indices, although not direct predictors of disease, show indirect influence through decrements in functional health and quality of life and increased disease risk. For example, negative health perceptions and poor health status can cause decreases in productivity, limitations in daily activities, absences from work and/or school, and increased or inappropriate service use, and it is estimated that as much as 50% of the current mortality is caused by negative health behaviors and can be prevented through health-promoting behaviors (Hamburg, Elliott, & Parron, 1982).

It is also important to identify factors that may influence or moderate the relationship between partner psychological abuse and health in a dating population to better inform prevention and intervention efforts. Type of coping strategy, which has been found to have an effect on psychological reactions to stressful events, may moderate the relationship between psychological abuse and health outcomes. Current theories suggest that two main coping strategies, approach and avoidance, govern responses to stress (Holahan & Moos, 1986; Roth & Cohen, 1986). Although avoidance coping has been associated with short-term benefits, approach coping is related to better adjustment in the long-term (Billings & Moos, 1984; Kuyken & Brewin, 1994; Manuel, Roth, Keefe, & Brantley, 1987). In a sample of medical patients, Cohen and Roth (1984) found that those who engaged in approach coping showed less emotional distress over time than those who used avoidance coping strategies. Moreover, those who used avoidance coping experienced the greatest overall distress, even more than those who used neither coping method. With

respect to health outcomes, avoidance goals (i.e., focused on avoiding outcomes) have been specifically associated with an increase in illness (e.g., chest or heart pain, coughing or sore throats, faintness or dizziness, headaches, and stomach ache or pain) (Elliott & Sheldon, 1998). Choice of coping style may have particular significance for victims of interpersonal violence. Roth and Cohen (1986) asserted that approach coping facilitates use of advantageous preventive measures among victims. That is, by using approach coping, psychologically abused women may be able to take steps to further avoid being a victim. Coping style may also influence the extent to which victims suffer psychological distress pursuant to abuse (Arias & Pape, 1999).

The purpose of this study is twofold. First, we explore the effects of psychological abuse on women's health behaviors and health status. Consistent with research on other interpersonal violence and health, it is expected that psychological abuse would be positively associated with health risk behaviors (e.g., smoking, substance abuse) as well as poor health status (e.g., negative health perceptions, limitations on physical activity) and negatively associated with health promotion behaviors (i.e., sleep, exercise). Second, we examine the moderating impact of coping on the relationship between psychological abuse and these health outcomes. Specifically, it is expected that partner psychological abuse would be associated with fewer health promotion behaviors, more health risk behaviors, and poorer health status in women with higher levels of avoidance coping. In contrast, psychological abuse would be associated with more health promotion behaviors, fewer health risk behaviors, and better health status in women with higher levels of approach coping strategies.

METHOD

Participants

For the sample, 151 female college students were recruited from introductory psychology courses at a large Southeastern university. They received partial credit of course requirements for their participation. Women were required to be in a heterosexual dating relationship of at least 1 month's duration; those not currently involved in such a relationship ($n = 4$) were excluded from the analyses. Of the remaining 147 women, 88% ($n = 129$) were Caucasian, 10% ($n = 15$) were African American, 1% ($n = 2$) were Latino, and 1% ($n = 1$) self-identified as another ethnicity. Participants ranged in age from 17

to 37 years old, with a mean age of 19.24 years ($SD = 1.94$). Average length of the current dating relationship was 16.61 months ($Mdn = 12$ months, $SD = 14.53$), with a minimum length of 4 weeks and a maximum length of 5.25 years. The majority of women were single: 95.5% ($n = 141$) had never been married, 3.0% ($n = 5$) were engaged to their partners, and 1 participant was divorced.

Procedure

Participants were recruited for a study described as an exploration of women's health and relationships. Participants completed a packet that included a demographic information questionnaire and self-report paper-and-pencil instruments in groups of up to 14 individuals. They were assured that their responses were anonymous and that their participation was completely voluntary. On completion of the questionnaire packet, participants were debriefed and thanked for their participation. They were provided with referrals to a campus mental health agency and a community battered women's shelter in the event that they experienced any distress during the course of the study.

Measures

Psychological Abuse

From the Psychological Maltreatment of Women Inventory (Tolman, 1989), 44 items were used to assess the amount of psychological maltreatment women experienced from their current dating partners; 14 items relating to shared living arrangements were omitted because the majority of women in this study did not cohabitate with their partners. Participants used a 5-point Likert-type scale (ranging from 1 = *never* to 5 = *very frequently*) to indicate the frequency of abusive behaviors (e.g., "My partner yelled or screamed at me" or "My partner called me names") during the course of the relationship. Total score was calculated by summing the ratings for each question; the range of possible scores was 44 (no psychological abuse) to 220 (very frequent abuse). Higher scores indicate greater exposure to partner psychological abuse. Approximately 92% of women reported experiencing at least one incident of partner psychological abuse. Previous research has validated the reliability and validity of the measure (Arias & Pape, 1999; Dutton & Hemphill, 1992; Tolman, 1989). In the present study, Cronbach's alpha was .93.

Health Promotion Behaviors

Sleep. Respondents were asked to rate whether their sleep was “restful and refreshing” (0 = no and 1 = yes). They were also asked to indicate whether they required medication to fall asleep (0 = yes and 1 = no). Responses on these two items were summed to create a composite sleep index with scores ranging from 0 to 2; higher scores indicate better sleep hygiene.

Exercise. Participants responded to one item that assessed their weekly exercise habits. They were coded as regular exercisers (1) or nonexercisers (0) based on their responses.

Health Risk Behaviors

Smoking. A single-item measure was used to assess current nicotine use. Participants were dichotomously coded as smokers (1) or nonsmokers (0) based on their responses to this question.

Alcohol problems. Four questions were used to assess level of problematic alcohol use among participants (e.g., “Have you ever felt that you should cut down on your drinking?”). Responses to each of the four questions were dichotomously coded (0 = no and 1 = yes) and then summed to create a composite score. Higher scores reflect more problematic alcohol use.

Binge drinking. Three items were used to assess level of binge drinking (e.g., “Have you ever had as much as a fifth of liquor in one day?”). Responses to each of the three items were dichotomously coded (0 = no and 1 = yes) and then summed to create a composite score of binge drinking. Higher scores reflect higher levels of binge drinking.

Illegal drug use. Six items were used to assess illegal drug use among participants. Sample questions included items such as “Do you currently use recreational drugs?” and “Have you ever felt that you should cut down on your drug use?” Responses to the six items were dichotomously coded (0 = no and 1 = yes) and summed to create a composite index. Higher scores reflect more illegal drug use.

Health Status

Physical limitations. Items from the Physical Functioning subscale of the Short-Form (SF-36) Health Survey (Ware & Sherbourne, 1992) were adapted to assess the extent to which physical health limited physical activities. Sample questions probed the extent to which participants' current health limited activities such as "climbing several flights of stairs" and "moving a table, pushing a vacuum cleaner, bowling, or playing golf." Responses to the 10 items were scored using a 3-point Likert-type scale (1 = *limited a lot*, 2 = *limited a little*, and 3 = *not limited at all*) and summed to create a composite score. Higher scores reflect more limitations on health.

Role limitations. Items from the SF-36 Health Survey Role-Physical subscale (Ware & Sherbourne, 1992) were adapted to assess the extent to which physical health limited work and other activities. Using a forced choice format (1 = no or 2 = yes), participants were asked to indicate whether their health, for example, "cut down on the amount of time spent on work or other activities" or resulted in "difficulty performing work or other activities." Responses were summed across the four items; higher scores reflect more role limitations.

Health perceptions. Items from the General Health subscale of the SF-36 Health Survey (Ware & Sherbourne, 1992) were adapted to assess perceptions of health. One item asked participants to rate their general health on a 5-point Likert-type scale (ranging from 1 = *excellent* to 5 = *poor*). Participants were then asked to rate their agreement (from 1 = *definitely false* to 5 = *definitely true*) with four statements such as "I expect my health to get worse." Responses for the five items were summed to create a composite variable of general perceptions of health. Higher scores reflect more negative perceptions of health.

Cognitive impairment. This construct was assessed with eight items asking about cognitive difficulties in the preceding 4 weeks. Sample questions such as "I get confused about the date" and "I get lost going to familiar places" were scored on a 5-point Likert-type scale (ranging from 1 = *none* to 5 = *extremely*). Responses for the eight items were summed into a composite index of cognitive impairment. Higher scores reflect more cognitive difficulties.

Avoidance and Approach Coping

The 28-item Brief COPE (Carver, 1997) is the shortened form of the original COPE Inventory and assesses a variety of behaviors (e.g., self-distraction, positive reframing, denial). Using a 4-point Likert-type scale (ranging from 1 = *I have not been doing this at all* to 4 = *I have been doing this a lot*), participants rated the frequency with which they used each coping response. Previous research with the Brief COPE across various populations demonstrates high internal reliability (Carver, 1997).

For the present study, exploratory factor analysis (using principal components extraction) was used to consolidate the nine subscales into two factors (approach coping and avoidance coping). Items loading above .40 on either of the factors were retained; items with loadings below .40 on either factor were dropped from the analyses.¹ Responses on each factor were summed to create a subscale score for each of the two coping dimensions. In this study, Cronbach's alpha was .88 for the Approach subscale and .76 for the Avoidance subscale.

RESULTS

The means and standard deviations for predictor variables and health outcomes are shown in Table 1. Bivariate correlations are shown in Table 2.

Psychological Abuse and Health Outcomes

In the first set of analyses, the relationship between psychological abuse and three types of health outcomes was examined: health promotion behaviors (i.e., sleep, exercise), health risk behaviors (i.e., smoking, alcohol problems, binge drinking, illegal drug use), and health status (i.e., physical limitations, role limitations, health perceptions, cognitive impairment). It was expected that bivariate relationships between psychological abuse and health might be influenced by confounding variables; therefore, a series of hierarchical multiple regression analyses (in which the covariates were entered as a block before entering psychological abuse) were conducted to control for possible covariation. First, length of relationship (but not participant age, ethnicity, or number of previous partners) was significantly related to psychological abuse ($r = .27, p = .001$) and was therefore covaried in analyses. Second, given the frequent co-occurrence of physical and psychological abuse, the effects of physical victimization were covaried in analyses using a popular and well-validated measure, the revised Conflict Tactics Scales (Straus,

TABLE 1: Means, Standard Deviations, and Range for Psychological Abuse, Coping Strategies, and Health Outcomes

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
Psychological abuse	57.08	14.26	44-134
Approach coping	33.13	7.54	0-48
Avoidance coping	11.46	3.47	0-27
Sleep hygiene	1.68	0.52	0-2
Exercise	0.80	0.40	0-1
Smoking	0.24	0.43	0-1
Alcohol problems	0.72	1.04	0-4
Binge drinking	0.18	0.45	0-2
Illegal drug use	0.18	0.72	0-5
Physical limitations	11.10	2.60	10-29
Role limitations	4.51	1.01	4-8
Health perceptions	9.84	3.13	5-22
Cognitive impairment	13.52	4.64	8-31

NOTE: Higher scores indicate more partner psychological abuse, avoidance coping, and health risk behaviors (smoking, alcohol and drug use). Higher scores also indicate more approach coping and health promotion behaviors (sleep hygiene, exercise).

TABLE 2: Correlations of Health Outcomes With Predictor Variables

<i>Variable</i>	<i>Abuse</i>	<i>Avoidance</i>	<i>Approach</i>
Sleep hygiene	-.11	-.12	.08
Exercise	.005	-.09	.06
Smoking	.06	.16	-.02
Alcohol problems	.16	.35***	-.06
Binge drinking	.12	.32***	.01
Illegal drug use	.21*	.10	.07
Physical limitations	.30***	.15	-.09
Role limitations	.17*	.27***	.07
Health perceptions	.25**	.24**	-.14
Cognitive impairment	.30***	.45***	-.07

NOTE: Abuse = partner psychological abuse; avoidance = avoidance coping; approach = approach coping. Higher scores indicate more partner psychological abuse, avoidance coping, and health risk behaviors (smoking, alcohol and drug use). Higher scores also indicate more approach coping and health promotion behaviors (sleep hygiene, exercise).

* $p < .05$. ** $p < .01$. *** $p < .001$.

Hamby, Boney-McCoy, & Sugarman, 1996). Third, level of drug and alcohol use was covaried with the four health status variables to control for any perceptual changes associated with substance use that could influence reports. Finally, a history of head injury was also covaried in the analyses using cogni-

tive impairment as a dependent variable to control for confounding effects from a previous head trauma.

Health Behaviors

Results showed that psychological abuse was significantly related to illegal drug use after controlling for length of dating relationship and physical victimization, $F(4, 136) = 3.09$, $\beta = .23$, $p = .008$, R^2 change = .05. Contrary to expectations, partner psychological abuse failed to show a significant relationship with other health risk or promotion behaviors including sleep, exercise, tobacco use, alcohol problems, or binge drinking.

Health Status

Psychological abuse was significantly related to physical limitations, $F(6, 134) = 3.02$, $\beta = .28$, $p = .002$, R^2 change = .07; role limitations, $F(6, 134) = 2.48$, $\beta = .25$, $p = .005$, R^2 change = .05; health perceptions, $F(4, 134) = 3.06$, $\beta = .29$, $p = .001$, R^2 change = .07; and cognitive impairment, $F(7, 133) = 4.00$, $\beta = .32$, $p = .000$, R^2 change = .09, after controlling for length of dating relationship, physical victimization, substance use, and (for cognitive impairment only) head injury. In short, higher levels of psychological abuse were related to more physical and role limitations, negative health perceptions, and cognitive impairment.

Type of Coping Strategy as a Moderator

In the second set of analyses, avoidance and approach coping were examined separately as moderators of the relationship between psychological abuse and each of the health outcome variables. Two-step regression analyses, as recommended by Baron and Kenny (1986), were used to test this relationship. First, the main effects for psychological abuse and type of coping strategy (avoidance or approach) were entered into the regression equation simultaneously. On the next step, the product of the two terms was entered into the regression equation along with the two main effects. A significance level of $p \leq .01$ was used to control for experiment-wise error.

Approach coping. Approach coping was tested as a moderator of psychological abuse and health outcomes. As shown in Table 3, the significant interaction term indicates that approach coping moderated the effects of psychological abuse on binge drinking. To explicate this interaction, separate regression equations were calculated based on level of approach coping (i.e.,

TABLE 3: Multiple Regression Analyses Predicting Binge Drinking With Psychological Abuse and Approach Coping Style as Criterion Variables

<i>Variable</i>	β	ΔR^2
Step 1		.11***
Physical victimization	-.34***	
Length of relationship	.01	
Step 2		.01
Psychological abuse	.10	
Approach coping	-.03	
Step 3		.04**
Psychological Abuse \times Approach Coping	-1.77**	

NOTE: Physical victimization = physical abuse by current partner; length of relationship = length of current relationship; psychological abuse = psychological abuse by current dating partner; approach coping = level of approach coping.
 * $p < .05$. ** $p < .01$. *** $p < .001$.

one standard deviation above and below the mean were used to represent higher and lower levels, respectively, of approach coping), and estimated values are plotted in Figure 1 (Aiken & West, 1991; Holmbeck, 1997; Montgomery & Peck, 1992). The significance of the simple slopes of each regression line was tested (Aiken & West, 1991; O'Connor, 1998). Results indicated a significant positive relationship between partner psychological abuse and binge drinking at lower levels of approach coping, $\beta = .45, p = .002$. As partner psychological abuse increased, women with lower levels of approach coping engaged in more binge drinking. In contrast, there was no significant relationship between psychological abuse and binge drinking at higher levels of approach coping, $\beta = -.19, p = .15$. There was a trend for binge drinking to decrease at higher levels of approach coping as psychological abuse increased.

Approach coping also moderated the effects of psychological abuse on health perceptions (see Table 4). This interaction was explicated using the same procedure as described above (i.e., one standard deviation above and below the mean were used to represent higher and lower levels, respectively, of approach coping). Estimated values are plotted in Figure 2 (Aiken & West, 1991; Holmbeck, 1997; Montgomery & Peck, 1992). An analysis of the simple slopes indicated a positive relationship between partner psychological abuse and health perceptions at lower levels of approach coping, $\beta = .48, p = .001$. In contrast, there was no significant relationship between psychological abuse and health perceptions at higher levels of approach coping, $\beta = .045, p = .72$.

Approach coping was also tested as a moderator of psychological abuse and the other health outcomes. Approach coping showed a trend toward mod-

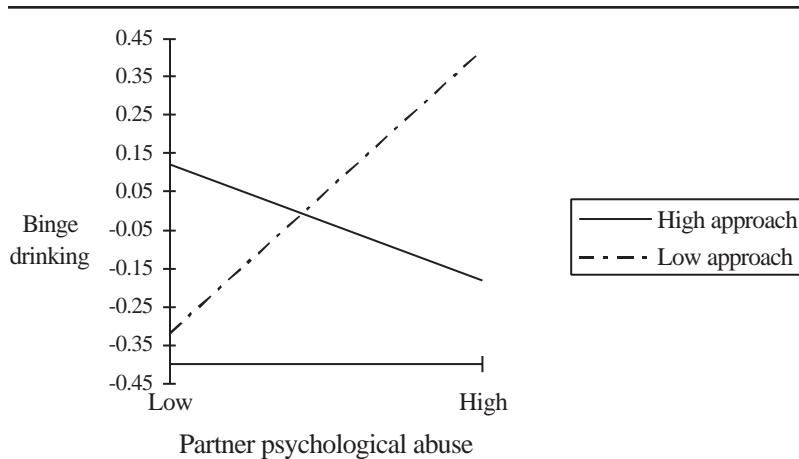


Figure 1: Binge Drinking as a Function of Approach Coping at High and Low Levels of Partner Psychological Abuse

TABLE 4: Multiple Regression Analyses Predicting Health Perceptions With Psychological Abuse and Approach Coping Style as Criterion Variables

Variable	β	ΔR^2
Step 1		.04
Physical victimization	-.10	
Length of relationship	.01	
Substance use	.15	
Step 2		.08**
Psychological abuse	.26**	
Approach coping	-.17*	
Step 3		.05**
Psychological Abuse \times Approach Coping	-1.84**	

NOTE: Physical victimization = physical abuse by current partner; length of relationship = length of current relationship; substance use = participant level of drug and alcohol use; psychological abuse = psychological abuse by current dating partner; approach coping = level of approach coping.

* $p < .05$. ** $p < .01$.

erating the effects of partner psychological abuse on alcohol problems, $p = .045$, but not other health behaviors (i.e., sleep, exercise, smoking, or illegal drug use). Approach coping also showed a trend toward moderating the effects of psychological abuse on physical limitations, $p = .033$, but not role limitations or cognitive impairment.

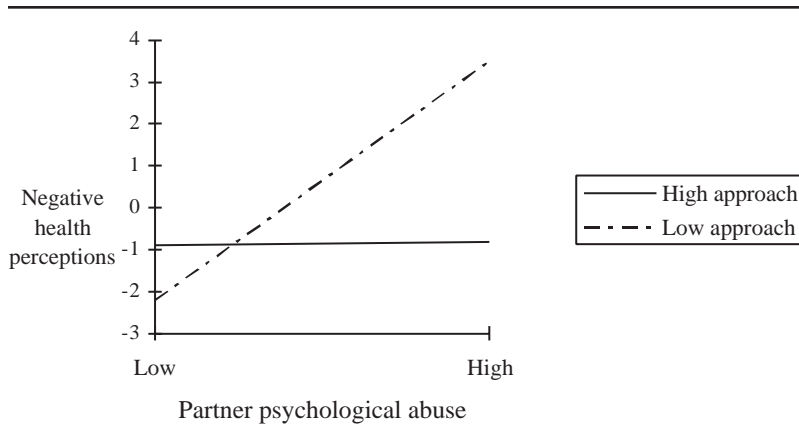


Figure 2: Negative Health Perceptions as a Function of Approach Coping at High and Low Levels of Partner Psychological Abuse

Avoidance coping. Avoidance coping showed only a trend toward moderating the effects of partner psychological abuse on illegal drugs, $p = .029$, and did not moderate the effects of psychological abuse on any other health behaviors. Avoidance coping showed main effects on tobacco, alcohol problems, and role limitations; higher avoidance coping was associated with more smoking, problematic drinking, and health-related limitations on work and/or other activities.

DISCUSSION

The study was conducted to explore the physical health correlates of partner psychological abuse in college-age women. Partner psychological abuse was expected to be significantly associated with health behaviors in college women. Physical and sexual victimization have been linked to smoking, alcohol problems, and illegal drug use (Acierno et al., 1996; Burnam et al., 1988; Kilpatrick et al., 1997), and psychological abuse has been associated with alcohol problems in a married community sample (Arias et al., 1996), suggesting that psychological abuse could have similar effects on health behaviors in dating women. The results of this investigation provided partial support for this hypothesis. Partner psychological abuse was positively associated with illegal drug use in dating women even after controlling for physical victimization. Stress-coping explanations of health behaviors (e.g., Epstein & Perkins, 1988; Sher, 1987; Suls & Rittenhouse, 1990) would sug-

gest that illegal drug use in victims reflects an attempt to cope with distress associated with the psychological abuse. At the same time, psychological abuse failed to show a significant association with other health risk behaviors (i.e., smoking, problematic alcohol use) or any health promotion behaviors, suggesting that partner psychological abuse may exert its influence on only the most extreme health risk behaviors. That is, psychological abuse may significantly contribute to the use of a lower base rate risk behavior such as illegal drug use (Patrick, Covin, Fulop, Calfas, & Lovato, 1997), whereas more frequent health risk behaviors (i.e., smoking, drinking) may be better predicted by other factors such as previous health behaviors, easier access to substances, and peer influence (e.g., Leeman & Wapner, 2001; Quigley & Collins, 1999).

Similar to previous findings with victims of physical and sexual assault (Kimerling & Calhoun, 1994; Koss et al., 1991; Moeller et al., 1993), partner psychological abuse was also expected to show positive associations with functional impairments and negative health perceptions. Results provided support for this hypothesis, with partner psychological abuse being linked to more negative health status outcomes over and above the effects of physical victimization, length of relationship, and substance use. The higher the level of partner psychological abuse, the more dating women experienced limitations on physical activities and role functioning, cognitive impairment, and negative perceptions of health. These findings not only confirm previous research showing that psychological abuse has a unique impact on victim outcomes over and above physical victimization (Arias & Pape, 1999; Herbert et al., 1991; Vitanza et al., 1995) but also suggest that psychological abuse has its greatest impact on health through decrements in health status (e.g., perceptions of health, functional impairment). A strong relationship between psychological abuse and health status, which in part reflects subjective beliefs about health, is consistent with theories of somatization and suggests that somatic-based complaints may be an expression of victim psychological distress. In rape victims, Kimerling and Calhoun (1994) found that health perceptions covaried with psychological distress and somatic complaints frequently overlapped with depressive and anxiety symptoms. This pattern of findings points to a relationship between emotional distress and somatic reports, and in fact, negative affect may be mediating the effects of victimization on health status. Negative emotions have shown a robust relationship with health outcomes (see Kiecolt-Glaser, McGuire, Robles, & Glaser, 2002, for a review) and have been specifically linked to greater functional impairments (e.g., Wells et al., 1989).

To better understand the relationship between psychological abuse and health, different coping strategies were examined as moderating variables.

Approach coping significantly moderated the effects of partner psychological abuse on both binge drinking and health perceptions. Women with low approach coping engaged in more binge drinking and had more negative health perceptions as the level of psychological abuse increased. In contrast, women with high approach coping showed no significant increase across levels of psychological abuse. Approach coping also showed a trend toward moderating the effects of partner psychological abuse on alcohol problems and physical limitations with a similar pattern of results; low approach coping was associated with more problematic drinking and more physical limitations than high approach coping as psychological abuse increased.

Women with low approach coping seem to have more adverse health consequences than women who routinely use more active strategies to cope with negative events. These results are consistent with previous research, which suggests that active coping is associated with better adjustment, whereas less active coping is associated with greater distress and more negative outcomes (Arias & Pape, 1999; Billings & Moos, 1984; Cohen & Roth, 1984; Elliott & Sheldon, 1998; Kuyken & Brewin, 1994; Manuel et al., 1987). Approach coping strategies may be buffering victims against negative health outcomes. Women who use high levels of approach coping (e.g., problem solving, venting, positive reframing) may be effectively diffusing any distress associated with psychological abuse and, as a result, experiencing less need to engage in health risk behaviors. By comparison, women using less active coping strategies may be experiencing more stress and, consistent with stress-coping theories (e.g., Epstein & Perkins, 1988; Sher, 1987), resorting to health risk behaviors to cope with the distress. Approach coping may have a similar buffering influence with respect to health status. That is, women who use high levels of approach coping may develop more active strategies for coping with physical limitations or, as a function of positive reframing, may perceive their health in a more positive light. In contrast, women low in approach coping may be denying any distress or, as previously mentioned, expressing their distress through somatic complaints, which may ultimately contribute to more decrements in health status.

Avoidance coping was also examined as a moderator of psychological abuse and health. It was expected that high levels of avoidance coping, as a salient indicator of less active coping, would mirror the effects of low approach coping and be associated with more negative health outcomes (i.e., health risk behaviors, poor health status). Avoidance coping, however, showed only a trend toward moderating the effects of psychological abuse on illegal drugs (but no other health behaviors), while having a direct effect on smoking, problematic drinking, and role limitations. The differential influ-

ence of approach and avoidance coping suggests that although active coping results in better health outcomes in victims, less active strategies such as distraction and denial appear to be better indicators of women's health regardless of level of psychological abuse from partners. It is possible that women are minimizing the impact of psychological abuse or experiencing only minimal distress related to these incidents, which would both account for a greater direct influence of avoidance coping on health outcomes. Although previous research has documented the damaging effects of psychological abuse in battered women (Arias & Pape, 1999; Herbert et al., 1991; Vitanza et al., 1995), perhaps psychological abuse is less severe or less distressing in the dating relationships of college women. At the same time, a moderately high correlation ($r = .36, p = .000$) between avoidance coping and psychological abuse suggests that there may also be significant overlap, such that psychological abuse is leading to more avoidance or that high avoidance coping is influencing choice of dating relationships. These findings suggest that although approach coping seems to be serving a moderating function, avoidance coping may be operating as a mediator of psychological abuse, and future studies may benefit from testing different models for these two types of coping strategies.

Several limitations to this study deserve mention. First, this sample of college women may not adequately represent the dating population of college-age women, and the effects of partner psychological abuse, as well as their health habits and health status, may not generalize to women of different ethnicities, socioeconomic status, or educational level. Future investigations would benefit from testing these findings on more diverse dating populations. Second, data were collected through self-report measures, and although there is evidence that college women accurately self-report sexual health behaviors (Durant & Carey, 2000, 2002), this method of data collection may have biased reports of other health behaviors as well as psychological abuse and coping. Future studies would benefit from using alternative methods of assessment to ensure accuracy in reporting. Third, the correlational design of the study limits inferences about causal relationships, and although hypotheses were based on theoretical considerations, other interpretations of the data are possible. For example, women were not asked about the onset of their health behaviors, and these behaviors may have preceded or increased risk for partner abuse (e.g., Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995).

Limitations aside, this investigation into the health correlates of partner psychological abuse among young women represents one of the first studies of this important area and offers several key findings. As found in previous studies (Arias & Pape, 1999; Herbert et al., 1991; Vitanza et al., 1995), psychological abuse appears to have a unique impact on victim adjustment over

and above physical victimization. The primary effects of this type of abuse on health seem to focus on changes in health status, pointing to the possibility that negative health perceptions and functional impairments are reflections of victim distress. Approach coping strategies may provide a buffer against negative health outcomes and protect victims from negative health behaviors and health status, whereas avoidance coping may have a more direct influence on health outcomes and serve to mediate between psychological abuse and health outcomes. The findings of this investigation reflect important associations, and further study is needed to add to this understanding of partner psychological abuse and its detrimental effects on the health and mental well-being of young women in dating relationships.

NOTE

1. Items from the Active Coping, Emotional Support, Instrumental Support, Positive Reframing, Planning, Acceptance, and Venting subscales loaded on the approach factor. Items from the Denial, Substance Abuse, Behavioral Disengagement, and Self-Blame subscales loaded on the avoidance factor.

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