

Testing A Social-Cognitive Model of Intimate Abusiveness  
Among Substance Dependent Males

by

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## ABSTRACT

Throughout history, the human race has been characterized by the use of physical and emotional aggression by individuals, particularly males, in their intimate relationships. Intimate abusiveness is particularly common among substance dependent males. As a result of male intimate abusiveness, victims suffer a variety of problems ranging from emotional trauma to death due to physical injury. Despite increased attention to this problem, our understanding of the process leading to intimate abusiveness is far from comprehensive. The primary purpose of the present study was to expand our understanding of intimate abusiveness through the application of a social-cognitive model of intimate abusiveness among substance dependent males.

Fifty-seven males from an inpatient substance abuse treatment program participated. Subjects completed questionnaires indicating their level of intimate abusiveness. In addition, they completed partner-related attribution measures as well as coping response measures indicating how they would interpret and handle five ambiguous vignettes involving their partner.

It was hypothesized that violent men would attribute greater negative intent and responsibility to their partner and that they would choose to handle the ambiguous vignettes in less competent ways compared with non-violent men. Further, it was predicted that the association between intimate abusiveness and competency of coping responses would be mediated by attributions made about the partner. Results of the study generally supported predictions. The implications of the results are discussed as well as suggestions for future research.

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Table of Contents

Abstract ..... ii

Acknowledgements ..... iii

Table of Contents ..... iv

List of Tables ..... v

List of Figures ..... vi

Introduction ..... 1

Method ..... 21

Results ..... 28

Discussion ..... 39

References ..... 51

Footnotes ..... 58

Vita ..... 69

List of Tables

Table 1 Total Scores Across Vignettes on Attribution of Negative Intent , Attribution of Responsibility, and Competency of Coping Response for Non-Violent/Non-Distressed (NV/ND), Non-Violent/ Distressed (NV/D), and Violent/Distressed (V/D) Groups ..... 60

Table 2 Regression Analysis Used to Test Attribution as a Mediator in the Association Between Intimate Abusiveness and Competency of Coping Responses ..... 61

Table 3 Regression Analysis Used to Test Intimate Abusiveness as a Mediator in the Association Between Competency of Coping Responses and Attribution ..... 62

Table 4 Regression Analysis Used to Test Competency of Coping as a Mediator in the Association Between Attribution and Intimate Abusiveness ... 63

Table 5 Frequency and Competency of Alternative Coping Responses Provided by Non-Violent/Non-Distressed (NV/ND), Non-Violent/Distressed (NV/D), and Violent/Distressed (V/D) Groups Across Vignettes ..... 64

Table 6 Mean Attribution of Negative Intent (NIQ), Attribution of Responsibility (RAQ), and Competency of Coping Response (CRM) Scores for Non-Violent/Non-Distressed (NV/ND), Non-Violent/Distressed (NV/D), and Violent/Distressed (V/D) Groups for Each Vignette ..... 65

Table 7 Regression Analysis Used to Test Attribution as a Mediator in the Association Between Intimate Abusiveness and Competency of Coping Responses: Specifically Examining Vignettes Involving Themes of Rejection ..... 66

List of Figures

Figure 1: Summary of McFall's (1982) Social-Cognitive Model of Social Skills..... 67

Figure 2: Mediational Model of the Association Between Propensity For Abuse, Partner-Related Attributions, and Competency of Coping Responses..... 68

### Introduction

The history of the human race has been characterized by the use of physical and emotional aggression by individuals, particularly males, in their intimate relationships. As a result of male intimate abusiveness, victims suffer a variety of problems ranging from emotional trauma to death due to physical injury. Despite increased attention to this problem among health care professionals and researchers, our understanding of the process leading to intimate abusiveness is far from comprehensive. Previous researchers have tended to search for singular explanations for intimate abusiveness (e.g., see Elliott, 1977); however, there have been a few recent attempts to construct more comprehensive explanatory models for this problem (e.g., Dutton, 1995b; Dutton, 1995a; Holtzworth-Munroe & Hutchinson, 1993; Holtzworth-Munroe, 1992b). The primary purpose of the present study was to expand our understanding of intimate abusiveness through the application of a social-cognitive model of intimate abusiveness among substance dependent males.

### The Problem of Male Intimate Abusiveness

The investigation of male intimate abusiveness, in general, has received relatively little research attention although this trend has improved somewhat in recent years. Systematic research investigating marital violence began in the 1970s and, by the early eighties, expanded to include courtship or relationship violence. Several studies using nationally representative samples from the United States have been conducted among married couples, cohabiting couples, and college couples. In general, these studies reported alarming rates of interpersonal conflict among married and unmarried couples in terms of verbal and physical aggression. As summarized below, numerous research efforts have revealed interpersonal conflict among intimate couples to be a significant and consistent problem over the past three decades.

As a starting point, National Family Violence Survey researchers (see Straus & Gelles, 1992) conducted face to face

interviews with more than 2,000 randomly selected married couples to assess the various methods that individuals used to resolve interpersonal conflicts. The survey assessed both constructive (e.g., discussing an issue calmly, compromising on a solution) as well as dysfunctional (e.g., beating up the partner, threatening the partner with a gun or knife) conflict resolution strategies.

Twenty-eight percent of the individuals interviewed reported the occurrence of at least one instance of physical assault during their current relationship with 16% of the respondents indicating such an event had occurred within the past year (Straus, Gelles, & Steinmetz, 1980). In the early eighties, Russell (1982) interviewed a randomly selected sample of 980 women, 18 years of age and older, and, using a conservative definition of rape, found that 14% of ever-married women had been raped by a husband or ex-husband at least once while another 7% acknowledged sexual assault by acquaintances or strangers.

In the Second National Family Violence Study (see Straus & Gelles, 1992), a telephone survey of 6,002 randomly selected households with married or cohabiting couples revealed that nearly one of every eight males had committed one or more acts of physical aggression against their female partners within the past year with 3% of the respondents reporting a severe assault. Shortly thereafter, White and Koss (1991) conducted a nationwide survey of courtship violence among over 4,700 college students and found that over eighty percent of the men and women had inflicted and/or received some type of verbal aggression during their relationship while the incidence of physical aggression (inflicted and/or received) ranged from about 32-39%. More recently, upon reviewing the previous 17 years of empirical research involving intimate relationships, Koss, Goodman, Browne, Fitzgerald, Keita, and Russo (1994) estimated that approximately 33% of women will experience at least one physical assault inflicted by an intimate partner during adulthood. The magnitude of this problem is reflected in the fact that the prevention of

intimate abusiveness has consistently been targeted as one of United State's top priorities in health promotion (U.S. Department of Health and Human Services, 1990).

Intimate abusiveness is particularly common among substance dependent males (Kantor & Straus, 1990); however, the direction and cause of the relation between substance abuse and intimate abusiveness has not yet been established. For example, studies have found that substance abuse problems are relatively common among spouse batterers (e.g., Hamberger & Hastings, 1991) and that spouse battery is relatively common among male substance abusers (Gondolf & Foster, 1991). Although the nature of the relation between substance abuse and intimate abusiveness is currently unclear, what is clear is that there is significant comorbidity. In fact, data from five clinical samples have shown that over 50% of men seeking treatment for substance abuse have physically assaulted their female partner within the past year (see Murphy & O'Farrell, 1996). Thus, from a clinical intervention perspective, it would seem extremely important to gain an understanding of the factors leading to intimate abusiveness within the substance abusing population.

Based upon this cursory examination, it is clear that intimate abusiveness, particularly involving substance abusing males, should be of significant concern to a wide array of health care providers as well as researchers in this area. As summarized below, although not necessarily specific to substance dependent males, a number of etiological theories have been offered which guide researchers' conceptualizations of the process and evolution of intimate abusiveness. A critique of etiological theories is an important part of the understanding of intimate abusiveness since, as discussed below, such theories provide the framework from which specific research findings have been derived.

#### Etiological Theories of Male Intimate Abusiveness

Early studies (e.g., see Elliott, 1977) assumed that male

intimate abusiveness was relatively rare and, possibly as a result, explained the etiology of intimate abusiveness in terms of dysfunctional neural mechanisms such as temporal lobe epilepsy leading to the diagnosis of intermittent explosive disorder. A "single factor" neurological explanation, if correct, would lead to the prediction of random explosive outbursts on the part of the abuser; however, research has indicated that wife assault, for example, typically occurs within certain problematic and usually private contexts (e.g., Dutton, 1995a). Thus, such an explanation appears to overlook the power of situational influences and instead focuses almost exclusively on the biological characteristics of the abuser.

Feminist/sociological explanations argue against earlier views by asserting that male intimate abusiveness is relatively common and has become commonplace as a result of social rules supporting male dominance of women (e.g., Dobash & Dobash, 1978; Goode, 1971) and passive compliance on the part of society as a whole (Straus, 1976). Thus, according to this view, men who assault women are simply seen as living up to cultural expectations. Although thought provoking, the feminist/sociological explanation has been soundly rebutted (e.g., see Dutton, 1994c). For instance, such an explanation cannot account for the empirical findings that all abuse rates are higher in lesbian relationships vs heterosexual relationships (Lie, Schilit, Bush, Montague, & Reyes, 1991), that abuse rates are actually lower in patriarchal cultures (Campbell, 1992), and that there is no linear association between dyadic power within the relationship and wife assault (Coleman & Straus, 1985). In fact, as Coleman and Straus (1985) point out, only about 9% of men are "power dominant" within the relationship, thus supporting the assertion by some researchers (e.g., Babcock, Waltz, Jacobson, & Gottman, 1993) that male intimate abusiveness is more strongly associated with perceived powerlessness rather than with power maintenance.

Researchers who use a sociobiological explanation for male intimate abusiveness view this process from a "natural selection" perspective. That is, physical characteristics and behaviors of male aggression and violence are seen as having an evolutionary function; those who demonstrate such characteristics are believed to maximize the likelihood of their own survival and, therefore, maximize the likelihood of surviving offspring (Bigelow, 1972). Thus, compared with the non-violent male, the violent male is seen as having an evolutionary advantage and then transmitting this evolutionary advantage to offspring who perpetuate the process. Although this perspective may fit with an evolutionary view of male to male violence in general, it has come under harsh criticism for its inability to account for male to female aggression and violence. For instance, it is unclear what would be the evolutionary advantage of men verbally and/or physically abusing their female partner since that person would be required to pass on the abuser's genes. Thus, it seems that a sociobiological perspective also fails to adequately take into account the interaction of situational and dispositional factors in the expression of abuse.

In contrast, a social learning explanation for male intimate abusiveness emphasizes partner abuse as a learned response to stress which is maintained by the immediate rewards (e.g., feelings of agency and control, cessation of aversive stimulation provided by losing a verbal dispute, cathartic expression of anger) obtained through its use (Dutton, 1988; Ganley, 1989). Some empirical evidence supports the observational learning aspect of a social learning explanation. Specifically, Straus, Gelles, and Steinmetz (1980) found that males who had observed parents assault each other were three times more likely to have assaulted their wife vs males who had not had such observations. However, inconsistent with the sex-specific modeling aspect of social learning theory, other evidence suggests that such modeling is not sex-specific. For example, Kalmuss (1984) found

that exposure to fathers hitting mothers increased the likelihood of sons and daughters being both perpetrators and victims of spousal violence. Thus, male intimate abusiveness does not seem to fit cleanly within a classic social learning framework.

Dutton (1995a) expanded upon social learning theory's view of aversive stimulation by proposing that changes in socioemotional distance between the male and female (e.g., perceived abandonment and control of intimacy) could serve as aversive stimulation which male abusers learn to extinguish through violence. However, Dutton (1995b) suggests that abusive behavior is best explained in term of personality organization which is seen as the root of male intimate abusiveness. According to this view, the abusive male's personality organization (e.g., unstable sense of self, impulsivity), which is strongly influenced by developmental factors, results in a greater propensity for him to make negative attributions specific to intimate relationships which, in turn, makes him much more likely to engage in abusive behavior against his partner.

Similarly, Baumeister, Smart, and Boden (1996) have suggested that the abusive male's self-appraisal may play an important role with regard to intimate abusiveness. For example, in a review of the violence literature, Baumeister and associates (1996) have concluded that individuals characterized by a favorable but unstable self-appraisal (i.e., view themselves positively but tend to be insecure with this self-appraisal) may be at greater risk for intimate abusiveness compared with individuals whose self-appraisal is low and/or stable. Consistent with Dutton's view of the abusive male (see Dutton, 1995a), these researchers suggest that males with a favorable yet unstable sense of self tend to be more reactive to negative feedback received from others. Such individuals may therefore be strongly motivated to reestablish their favorable self view through aggressive behavior directed at the source of the negative feedback (in this case, their partner). Accordingly, it

would seem logical that men with a high but unstable self-appraisal would be more vigilant with regard to partner behavior and, insecure about their positive self-image, would tend to interpret ambiguous partner behavior in a negatively biased way.

This conceptualization of intimate abusiveness would be compatible with a social-cognitive framework since it would suggest that some men may be more likely to aggress against their partner based upon the nature of their self-appraisal as well as their appraisal of their partner's behavior.

Although Dutton (1995a) suggests that verbally and/or physically abusive outbursts are "probably inevitable" for the abusive personality, the cognitive components of the abusive personality (e.g., repetitive blaming and negative attributions related to the partner) are seen as serving an important role in the maintenance of partner-specific anger. However, given the importance of the cognitive components of the abusive personality conceded by Dutton's personality theory, the *inevitability* of abusive outbursts would seem questionable. That is, as suggested by Baumeister and associates (1996), cognitive processes may be critical in determining the likelihood of whether abusive or non-abusive responses are ultimately enacted by the abusive male in certain provocative situations. Moreover, as indicated by Steele and Josephs (1990), extreme misconstrual of the self and others due to the impairing effects of substance use may be a particular problem when examining substance abusing males. Emphasizing the importance of cognitive processes leading to violence in relationships, Holtzworth-Munroe and Hutchinson (1993) have proposed a model of marital violence based upon a well established social-cognitive model of social skills deficits (see McFall, 1982). Indeed, research conducted by Holtzworth-Munroe and Hutchinson (1993) suggests that differences between abusive and non-abusive husbands may be explained in terms of social skills deficits at one or more stages of information processing. In short, these researchers propose that the manner in which an

abusive husband decodes (i.e., interprets), makes coping response decisions, and enacts coping strategies in the context of conflict situations may determine whether he responds in an abusive fashion.

Given the previous discussion of various etiological theories of male intimate abusiveness which have driven research findings in this area, it will now be informative to review specific findings and their implications for the investigation of intimate abusiveness from a social-cognitive perspective. The following section will provide a review and critique of relevant findings.

#### Review and Critique of Findings

Although many researchers now agree (e.g., Baumeister et al., 1996; Dutton, 1995a; Dutton, 1995b; Holtzworth-Munroe & Hutchinson, 1993) that the problem of male intimate abusiveness likely results from a complex set of factors, researchers in this area continue to assess "single factor" explanations for why certain males verbally and/or physically abuse their partners. In large part, previous studies have explored hypothesized differences between abusive and non-abusive males in terms of their physiological arousal (e.g., Gottman, Jacobson, Rushe, Shortt, Babcock, Taillade, & Waltz, 1995; Margolin, John, & Gliberman, 1988), cognitive appraisal (e.g., Copenhaver, Lash, & Eisler, 1997; Baumeister et al., 1996; Holtzworth-Munroe & Hutchinson, 1993; Holtzworth-Munroe, 1992b), and coping strategies for managing partner conflict (e.g., Holtzworth-Munroe & Anglin, 1991; Dutton & Browning, 1988). The following sections will summarize relevant research findings in each of these domains.

#### Physiological Arousal Differences

Investigations of the hypothesized physiological arousal component of male intimate abusiveness has resulted in somewhat equivocal findings. For example, in examining the self-reported physiological responses of physically aggressive, verbally

aggressive, withdrawing, and nondistressed/nonaggressive couples during a problem-solving discussion, Margolin and associates (1988) report that physically aggressive husbands reported a more negative emotional state. However, the group of physically aggressive husbands reported only slightly more physiological arousal during such discussions as compared with the non-physically aggressive husbands (Margolin et al., 1988). Unfortunately, no objective measures of physiological arousal (e.g., heart rate, blood pressure) were obtained to cross check self-reported physiological arousal, thus making it impossible to compare *actual* arousal states under these conditions. Nonetheless, it appears that physically aggressive husbands may at least subjectively experience a more negative emotional state compared with non-aggressive husbands.

Another study examining the physiological arousal aspect of male intimate abusiveness (Jacobson, Gottman, Waltz, Rushe, Babcock, & Holtzworth-Munroe, 1994) objectively recorded heart rate, pulse transmission, and relative blood volume of partners in the context of husband-wife arguments. Contrary to expectations, results revealed that these objective arousal measures effectively distinguished wives, but not husbands, in violent and non-violent marriages (Jacobson et al., 1994) thus arguing against the notion that physiological hyperreactivity on the part of males predisposes them to respond to partner conflict in a violent manner. However, a more recent study (Gottman, et al., 1995) may have at least partially explained the lack of differences in physiological reactivity between abusive and non-abusive males. Gottman et al. (1995) report a physiological typology of intimately abusive males in which "Type 1 Abusers" (which constituted 20% of their sample of abusive males) actually demonstrated a decreased physiological response to conflictual partner interactions while "Type 2 Abusers" showed an increased physiological reaction. Type 1 and Type 2 abusers also tended to differ in many other respects including belligerence and

contempt, level of anger, family history of violence, violence outside the marriage, personality characteristics (Gottman et al., 1995). In short, in addition to finding that Type 1 abusers showed highly controlled physiological responses to conflictual partner interactions, this study also found that Type 1 men were significantly more belligerent, contemptuous, and angry during conflictual partner interactions, were more violent outside the marriage (e.g., with friends, strangers, and coworkers), were more likely to have witnessed physical violence between their parents, and were more likely to show antisocial, drug dependent, and aggressive-sadistic personality characteristics. Taken together, the above findings suggest that although there may be a physiological component involved in male intimate abusiveness, it would be precipitous to assume that it stems from physiological reactivity alone.

#### Differences in Cognitive Appraisal

Given that there does not appear to be a simple and direct association between physiological reactivity and abusive behavior by men, other researchers (Copenhaver, et al., 1997; Holtzworth-Munroe & Hutchinson, 1993; Holtzworth-Munroe, 1992b; Gryl, Stith, & Bird, 1991; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986) have suggested that the way in which men appraise conflictual situations involving their partners may be more critical in determining the likelihood of abusive behavior. For instance, it has been suggested that abusive men's cognitive appraisal such as partner-specific attributions of negative intent (e.g., "She was trying to hurt me") in the context of partner conflict significantly increases the likelihood that they will respond to their partner in an emotionally or physically abusive manner (e.g., Holtzworth-Munroe & Hutchinson, 1993). Thus, intimately abusive males' tendency to interpret certain conflictual situations in a negatively biased manner may make them more likely to learn and implement violent coping responses when faced with certain types of partner conflict.

In a ground breaking study, Holtzworth-Munroe and Hutchinson (1993) used various hypothetical marital situation vignettes to compare partner-specific attributions of negative intent and responsibility for violent, non-violent/distressed, and non-violent/non-distressed husbands. In certain types of ambiguous conflict situations (e.g., involving issues of jealousy, rejection, and potential public embarrassment), violent men were significantly more likely than either of the non-violent groups to attribute negative intent to their partner (Holtzworth-Munroe & Hutchinson, 1993). Moreover, these researchers also found that when compared with the groups of non-violent/non-distressed husbands, violent husbands were significantly more likely to attribute more personal responsibility (blameworthiness) to their partner for the conflict situation.

Interestingly, the Holtzworth-Munroe and Hutchinson (1993) findings parallel research reported by Dodge and Coie (1987) examining aggressive boys suggesting that some boys tend to interpret the actions of their peers as being motivated by negative intent. However, in the case of the abusive male, it appears that attributions that increase the likelihood of partner-specific abuse occur only under certain types of conflict situations (e.g., those involving issues of jealousy, rejection, and potential public embarrassment). That is, rather than finding a difference due to global attribution style, these researchers found that abusive males only tend to make attributions of negative intent in certain conflict situations. Although the Holtzworth-Munroe and Hutchinson study (1993) included only married subjects recruited from a domestic violence treatment setting, which may have resulted in the selection of a relatively extreme violent group, it clearly demonstrates the potential importance of cognitive appraisal in the process of partner-directed abusive behavior.

In support, Copenhaver and associates (1997) have found that men whose cognitive appraisal style was characterized by

hypersensitivity to situations perceived as a threat to their masculinity, as indicated by the masculine gender-role stress scale (Eisler & Skidmore, 1987), could be used to effectively identify men who tend to respond to partner conflict using high levels of verbal and physical aggression. In addition, others (Sonkin, Martin, & Walker, 1985) suggest that violent men are particularly sensitive to perceived female threats to their competency, an important aspect of the stereotypical masculine gender identity. Further, Baumeister and associates (1996) have suggested that men whose self-appraisal is characterized as favorable but unstable may be more likely to respond in an abusive manner when they perceive challenges to their self-appraisal. Thus, when threatened by negative feedback from their partner that clashes with their favorable self-appraisal, some men may aggressively attack the source of the negative feedback (their partner in this case) in order to maintain their favorable self-view. Although untested empirically, it may be that differences in the cognitive appraisal leads abusive men to implement different coping strategies, a topic which is addressed below.

#### Differences in Coping Strategies

In addition to examining the impact of cognitive appraisal of partner-specific conflict, researchers have also begun to identify differences between abusive and non-abusive men in terms of the ways in which each copes with conflictual situations involving their partner. Some researchers have hypothesized that coping skills deficits may be an important factor leading some men to react to partner conflict in an abusive manner. In one study, Dutton and Browning (1988) found that physically aggressive men, when asked to indicate how they would respond to videotaped scenes of a conflictual couple's interactions, provided coping responses that differed from non-violent men in that their responses revealed significantly less constructive reasoning, more verbal aggression, and more physical aggression.

In a similar study, Holtzworth-Munroe and Anglin (1991) compared the "competency" of responses given by maritally violent vs non-violent men to conflict vignettes. In this study, "competent" responses were defined as those responses which would likely resolve the current problem and make similar problems less likely in the future (e.g., negotiating compromises, expressing thoughts and feelings) whereas "incompetent" responses were defined as those responses which would likely neither resolve the current problem nor make similar problems less likely in the future (e.g., making threatening statements, name calling, sarcasm, use of physical force; see Gaffney & McFall, 1981). Results revealed that, for certain types of conflict situations (e.g., involving issues of jealousy, rejection from wife), violent men offered coping responses that were significantly less competent than responses offered by non-violent men (Holtzworth-Munroe & Anglin, 1991). In support of the notion that abusive men may have situation-specific coping deficits rather than general coping skills deficits, these researchers found that abusive men tended to have more difficulty generating competent coping responses within the context of *certain types* of conflict situations. Interestingly, the hypothetical situations that elicited significant differences between abusive and non-abusive men with respect to competency of coping responses (Holtzworth-Munroe & Anglin, 1991) were identical to the situations found to elicit significant differences in cognitive appraisal (Holtzworth-Munroe & Hutchinson, 1993). Unfortunately, no effort was made to determine the extent to which the selection of coping strategies was "driven" by subjects' cognitive appraisal of the conflict situation. Thus, as noted by Holtzworth-Munroe (1992b), the question remains as to whether differences in cognitive appraisal may lead to differences in the generation and selection of coping strategies.

Based on the findings just described, it seems clear that there is a need for a more complete explanation for male intimate

abusiveness. One promising approach has been the application of McFall's (1982) social-cognitive model of social skills deficits to the problem of male intimate abusiveness (see Holtzworth-Munroe, 1992b). The social-cognitive model, and its implications for the proposed research will be discussed below.

A Social-Cognitive Model of Intimate Abusiveness. Recently, Holtzworth-Munroe (1992b) proposed that the problem of intimate abusiveness may be explained using McFall's (1982) social-cognitive model, an explanatory model which has been used extensively in other areas of social skills research. Previously, McFall's model has been used to identify social skills deficits in populations including depressed college males (Fisher-Beckfield & McFall, 1982), psychiatric inpatients (Goldsmith & McFall, 1975), delinquent adolescent boys (Freedman, Rosenthal, Donahoe, Schlundt, & McFall, 1987; Holtzworth-Munroe, 1992b), rapists (Lipton, McDonel, & McFall, 1987; McDonel & McFall, 1991), and aggressive boys (Dodge & Coie, 1987). According to the model, "social skills are ... the specific abilities that enable a person to perform competently at particular social tasks" (McFall, 1982, p. 23). In this view, social skills are seen as a series of sequential steps "through which incoming stimuli, or situational tasks, are transformed into the responses, or task performances, which then are judged as competent or incompetent. Each skill is considered to be a necessary-but-not-sufficient condition for competent responding" (McFall, 1982, p. 24). Thus, incompetent performance at any one step of cognitive processing may negatively influence the behavioral outcome independent of performance at other steps of cognitive processing.

In an initial application of McFall's (1982) social-cognitive model to the problem of intimate abusiveness, Holtzworth-Munroe (1992b) suggests that men may engage in abusive behavior against their partners as a result of deficits or faulty information processing at any or all of three sequential stages

of processing: 1) decoding, 2) decision-making, and 3) enactment (see Figure 1). The following will be a detailed description of the three sequential stages of the social-cognitive model as well as a summary of research findings which support the model's applicability to the explanation of male intimate abusiveness.

*The Decoding Stage.* First, as shown in Figure 1, the decoding stage involves processes of reception, perception, and interpretation of incoming stimuli. Factors such as inattention or distraction may disrupt the reception or perception of an event, and therefore lead to inappropriate responses to the event. More importantly, the model predicts that misinterpretation (e.g., distorted attributions, irrational beliefs, unrealistic expectations) of a social situation may also lead to inappropriate behavioral responses (Holtzworth-Munroe, 1992b). Accordingly, abusive and non-abusive men may differ in terms of how each decodes, or in effect interprets, certain conflict situations involving their partner. Research by Holtzworth-Munroe and Hutchinson (1993) supports the assertion that intimately abusive men tend to show deficits in decoding processes, particularly with respect to attributions they make about their partner's intent and responsibility during a conflictual situation. Specifically, Holtzworth-Munroe and Hutchinson (1993) report that, in certain types of ambiguous conflict situations (e.g., involving issues of jealousy, rejection, and potential public embarrassment), intimately abusive husbands were significantly more likely to make attributions of negative intent (i.e., "She was trying to hurt me") and personal responsibility (i.e., "She is to blame") for their partner's behavior than were non-violent/distressed and non-violent/non-distressed men.

As mentioned, these findings are analogous to those of Dodge and Coie (1987) who report that aggressive boys tend to interpret the actions of their peers as being motivated by negative intent.

Further support is provided by Copenhaver and associates (1997)

as well as Baumeister and associates (1996) who suggest that cognitive appraisal of self and others plays an important role in intimate abusiveness.

Based upon these findings, there is reason to suspect that situation-specific decoding differences between abusive and non-abusive males may influence whether an abusive behavior is selected and ultimately enacted against a partner. However, these findings alone do not provide empirical evidence of how the decoding process may influence decisions made in selecting and enacting incompetent coping responses.

*The Decision-Making Stage.* The decision-making stage of the social-cognitive model involves the processes of generating and choosing an appropriate response in a social situation (see Figure 1). In effect, once the social stimuli are initially decoded, one must mentally search for possible responses (response search). Each possible response must then be matched to the demands of the task (response test), and the best alternative for managing the situation must then be selected (response selection). After a potential response is selected, it becomes necessary to search one's behavioral repertoire for the appropriate response (repertoire search). Finally, once it is decided that one has available the necessary behaviors to enact the selected response, then one must weigh the costs/benefits of enacting the selected response (utility evaluation). This decision-making process is repeated by an individual as deemed necessary until an acceptable response is found.

Research relevant to the decision-making stage of the social-cognitive model suggests that differences between abusive and non-abusive men may relate to differences in their generating and selecting "competent" coping responses (i.e., non-abusive responses that would likely lead to conflict resolution; Holtzworth-Munroe, 1992b). Evidence for differences between abusive and non-abusive men at the decision-making stage of processing are provided by studies described above (Holtzworth-

Munroe & Anglin, 1991; Dutton & Browning, 1988) showing that intimately abusive men show difficulty generating competent coping strategies in the context of certain types of ambiguous conflict situations involving their partner. Specifically, Dutton and Browning (1988) found that, when asked to imagine coping with videotaped scenes of a conflictual couple's interactions, physically abusive men differed from non-violent men in that their coping strategies of choice involved significantly less constructive reasoning, more verbal aggression, and more physical aggression. In a more recent study, Holtzworth-Munroe and Anglin (1991) found that, for certain types of ambiguous conflict situations (e.g., involving issues of jealousy, rejection from wife), abusive men offered coping responses that were significantly less competent than responses offered by non-abusive men.

Although the ability to generate and select competent coping strategies seems to be important in predicting abusive behavior toward the partner, it is currently unclear the extent to which the decision-making stage is impacted by the initial decoding stage of information processing. That is, less competent coping responses may be selected by an intimately abusive male, at least to some extent, as a function of their attributions about their partner's behavior. Decoding differences between abusive and non-abusive males may result in each person conceptualizing, and therefore responding, to identical conflict situations in very different ways. In addition, the tendency to decode certain conflictual situations in a negatively biased manner may lead abusive, as opposed to non-abusive men, to develop a repertoire of primarily incompetent coping strategies for managing those situations. Thus, it may be that in certain situations, abusive and non-abusive men may differ in terms of the available repertoire from which they generate and select a coping strategy.

Indeed, research has demonstrated that abusive men have more difficulty generating competent coping strategies in the context

of certain types of conflict situations. However, no attempts have been made to examine how coping responses may be impacted by the manner in which the situation is initially decoded (Holtzworth-Munroe, 1992b).

*The Enactment Stage.* The third and final stage of the social-cognitive model involves the process of behaviorally enacting the selected coping response. At this point in processing, situational stimuli have been decoded and a decision has been made about how to respond to the situation. One must now translate the chosen response into behavioral action (execution) and then monitor the impact of the executed action (self-monitor) to determine how closely the observed impact of the executed action corresponds with the intended impact of the action (see Figure 1).

Research has not directly addressed this stage of the model with respect to intimately abusive men; however, there is indirect evidence indicating possible differences between abusive and non-abusive men in terms of the enactment of competent coping strategies. For instance, Margolin and associates (1988) found that physically abusive men enacted more offensive negative behavior (e.g., negative gestures, nonverbal commands) and more negative voice qualities than did non-violent men. In addition, in the context of their partner interactions, physically abusive men increased their patronizing (e.g., condescending, sarcasm), withdrew, and decreased their problem-solving behaviors and displays of warmth as compared with non-abusive men. Further support is provided by Riggs, O'Leary, and Breslin (1990) who found a significant negative correlation between problem-solving behaviors and enacted violence; moreover, these researchers found that problem-solving ability was a key variable in distinguishing aggressive from non-aggressive men.

Interestingly, the pattern of results found for maritally violent couples also holds for violent couples within the college population. Specifically, Gryl and associates (1991) compared

enacted negotiation styles and enacted coping strategies used by those in violent and non-violent relationships. These researchers found that, when compared with non-violent men, violent men faced with partner conflict, tended to enact emotion-focused strategies (e.g., confrontation, escape/avoidance) compared with non-violent men who tended to enact more direct problem-solving coping strategies. One weakness of this study, however, was the fact that no effort was made to control for level of distress within the relationship. Therefore, it is not clear to what extent the enactment of coping strategies was impacted by level of conflict or distress. More importantly, no effort was made to examine the extent to which differences in decoding (e.g., attribution of partner behavior) or decision-making (e.g., generation and selection of possible coping responses) may have impacted the enactment of coping responses. In effect, although this remains an empirical question, it would seem likely that differences between abusive and non-abusive males at the enactment stage of information processing may be "driven" to a large extent by differences at the decoding and/or decision-making stages.

Research findings presented above suggest the potential utility of applying the social-cognitive model to the understanding and remediation of male intimate abusiveness. Previous research indicates that there may be significant differences between abusive and non-abusive males at the decoding, decision-making, and enactment stages of information processing. However, as noted, unanswered questions remain with respect to understanding intimate abusiveness in terms of an integrated social-cognitive model. The following section will provide a rationale for conducting the present research to assist in answering some of these questions through the application of McFall's (1982) social-cognitive framework.

#### Present Study

As discussed, previous research supports the notion of

differences between abusive and non-abusive men at the three individual stages (i.e., decoding, decision-making, and enactment) of McFall's (1982) social-cognitive model. In short, research suggests that abusive and non-abusive men differ significantly in the manner in which they decode, make decisions, and enact coping strategies in certain conflict situations involving their partner. One might infer, as McFall (1982) and others (e.g., Holtzworth-Munroe & Hutchinson, 1993) have implied, that decoding differences between these men likely impact their decision-making about how to cope with conflictual situations involving their partner. It may be that the significant association between intimate abusiveness and incompetent decision-making is mediated by decoding. That is, intimately abusive men may generate and select incompetent coping strategies in the context of partner-specific conflict as a function of a negatively biased decoding process. However, the critical question of how the decoding process impacts the decision-making process has not been addressed empirically within a single study.

Establishing how the decoding process influences the decision-making process would clearly assist in the development of intervention strategies for intimately abusive men by focusing attention on the critical area(s) for remediation rather than presuming that these men have more generalized coping deficits.

The present study tested McFall's (1982) social-cognitive model described above in an integrated fashion using substance dependent males. In addition to examining how abusive and non-abusive men in this population decode and make decisions in the context of conflict situations, this study also examined the influence of these men's decoding processes on their decision-making processes. Thus, it was possible to test the hypothesized linkage between the decoding and decision-making components of the model. The following a priori hypotheses were tested:

1. Compared with non-abusive men, abusive men will attribute significantly greater negative intent to their partner in

- the context of the hypothetical vignettes.
2. Compared with non-abusive men, abusive men will attribute significantly greater responsibility (blameworthiness) to their partner in the context of the hypothetical vignettes.
  3. Compared with non-abusive men, abusive men will select significantly less competent coping responses to manage the situations presented in the hypothetical vignettes.
  4. The association between intimate abusiveness and competency of coping responses will be mediated by attributions men make about their partner's behavior.

#### Method

##### Participants

A total of 148 potential subjects were available through admission to the inpatient substance abuse treatment program at the Veterans Affairs Medical Center in Salem, Virginia. Of those available, 14 individuals declined to participate, 17 left the program before their scheduled appointment for participation, 15 repeatedly missed their appointment for participation, and two individuals were physically or mentally unable to participate. In addition, 14 participants repeatedly failed to complete initial screening questionnaires required by the study and 14 participants failed to complete dependent measures during their participation in the study. Finally, 15 subjects participated in the study but their intimate abusiveness scores and relationship distress scores did not allow them to be classified into one of the three groups of interest (they were classified as Violent/Non-Distressed; see Procedure section below).

Participants of primary interest were 57 inpatients of the substance abuse program who completed the screening measures, fully completed dependent measures during their participation, and whose scores on the screening measures qualified them for one of the three groups of interest (Non-Violent/Non-Distressed, Non-Violent/Distressed, or Violent/Distressed; see Procedure section below).

The mean age of the 57 participants was 44.7 years ( $SD = 7.7$ ). Sixty-five percent were Caucasian and 35% were African-American. Seventy-seven percent were alcohol dependent, 21.2% cocaine dependent, 17.3% polysubstance dependent, 9.6% cannabis dependent, 1.9% benzodiazapine dependent, 1.9% opiate dependent, 1.9% stimulant dependent, 1.9% were diagnosed with alcohol abuse, 7.7% with cocaine abuse, and 11.5% with cannabis abuse. The mean education level was 12 years (high school education). Thirty-seven percent of subjects were married or remarried, 47% were divorced, 11% had never married, and 5% were widowers. In terms of personal abuse history, 78% reported no history of being physically or sexually abused, 11% reported a history of being physically abused, and 11% reported a history of being sexually abused. Eighty-one percent of subjects denied either physically or sexually abusing another person and 19% reported that they had previously physically abused someone. Finally, in terms of military service, the mean time spent in the service was 4.4 years ( $SD = 3.9$ ); in addition, 28% of subjects reported serving combat duty while 72% reported no combat history while serving in the military.

### Measures

*Conflict Tactics Scale (CTS)*. The CTS (Strauss, 1979), a 17-item scale, is composed of four subscales including reasoning, verbal aggression, physical aggression, and severe aggression. Subjects were asked to indicate how often they have performed each of the listed behaviors during their current relationship on a scale ranging from 0 (never) to 6 (more than ten times). The subscales of interest (Verbal Aggression, Physical Aggression, and Severe Aggression) have adequate internal consistency (Cronbach Alpha = .80-.91). Straus (1979) provides evidence for the concurrent validity of the CTS by comparing CTS self-reports by perpetrators and family reports of conflict tactics used by perpetrators. In addition, many researchers (e.g., Sugarman & Hotaling, 1989) have shown findings supporting the construct

validity of the CTS. The CTS was used to sort subjects into violent or non-violent groups.

*Hypothetical Conflict Situation Vignettes.* The vignettes (see Holtzworth-Munroe & Anglin, 1991) represent a variety of potential relationship conflict issues including: rejection from the partner (e.g., the woman does not seem to be paying attention to the man), potential public embarrassment (e.g., the woman seems to be trying to get the man to cancel prearranged plans with friends), and jealousy (e.g., the woman seems to be enjoying a conversation with another man who is flirting). Through pilot testing of undergraduates in serious long-term relationships, non-violent/non-distressed husbands, and violent/distressed men (see Holtzworth-Munroe & Anglin, 1991), it was determined that these hypothetical vignettes met several criteria including: 1) being perceived as realistic, and 2) being perceived as moderately important, yet somewhat difficult and uncomfortable to handle well, and 3) being sufficiently ambiguous to generate a wide range of interpretations and responses from subjects. All vignettes were presented from the man's perspective and ended with their partner behaving in a manner that is potentially negative in impact. Each subject was presented, by audiotape, a series of five hypothetical vignettes.

*Negative Intentions Questionnaire (NIQ).* The NIQ (see Holtzworth-Munroe & Hutchinson, 1993) is a 5-item measure which was used to assess the level of negative intent attributions participants made with regard to their partner in response to each of the hypothetical vignettes. Participants rated, on a 6-point scale, the extent of agreement/disagreement that their partner's behavior during each hypothetical vignette involved five specific negative intentions: "She was trying to ... 1) make me angry, 2) hurt my feelings, 3) put me down, 4) get something for herself, and 5) pick a fight".

*Responsibility Attributions Questionnaire (RAQ).* A modified version of the RAQ (Fincham & Bradbury, 1992) is a 4-item measure

which was borrowed from previous research examining the role of attributions in marital distress. Participants were required to rate, on a 6-point scale, the level of agreement/disagreement that their partner acted with selfish motivation and deserved to be blamed for her behavior. Based upon four questions, "My partner... 1) did this on purpose, 2) did this to have a bad or negative impact on me, 3) deserves to be blamed for acting this way, and 4) was motivated by selfish rather than unselfish concerns", this measure was used to assess the degree of responsibility men attributed to their partner in each of the vignettes.

*Coping Response Measure (CRM).* The CRM is an open-ended measure of subjects' decisions about how to cope with each hypothetical vignette. For each vignette, subjects were prompted to provide a handwritten responses indicating their coping response alternatives as well as how they would actually choose to handle the situation presented. The CRM is composed of two questions: 1) "What are all the possible things that you could do to handle the situation you just heard about?" (coping response alternatives) and 2) "What would you do in the situation you just heard about?" (their chosen coping response). Responses to the CRM were coded using a standardized scoring system based on McFall's conceptualization of competent decision-making (see Gaffney & McFall, 1981; Holtzworth-Munroe & Anglin, 1991) to evaluate the competency of subjects' decision-making about how to cope with each hypothetical vignette.

*Relationship Adjustment Test (RAT).* The RAT is a 15-item scale, based on the Short Marital Adjustment Test (SMAT; Locke & Wallace, 1959), which was used to assess various aspects of subjects' current relationship. The SMAT has been used extensively in research on interpersonal relationships and has well-established psychometric properties (see Holtzworth-Munroe & Hutchinson, 1993). The RAT was used to sort subjects into distressed or non-distressed groups.

*Propensity for Abuse Scale (PAS)*. The PAS (Dutton, 1995b), a 29-item scale, has previously been used to assess for the tendency toward intimate violence. The scale was established by combining items from several self-report personality scales which were found most effective in differentiating abusive from non-abusive men. Included in the scale are items which tap constructs of anger, fearful attachment, paternal rejection, and chronic trauma. The PAS has shown good predictive validity by correctly identifying 82.2% of a sample of men as either high- or low-abusive (Dutton, 1995b). To date, the PAS has been successfully used to identify abusiveness in clinical outpatients, blue-collar workers, and college students (Dutton, 1995a). The PAS, a subtle (less face valid) measure of intimate abuse, was used for exploratory purposes to compare with the CTS as a predictor of intimate abusiveness.

*Masculine Gender-Role Stress Scale (MGRS)*. The MGRS (Eisler & Skidmore, 1987) is a 40-item scale which consists of items determined to be stressful for men. The scale is based on the assumption that when men appraise themselves as unable to cope with the imperatives of the male role in a situation, they will experience stress. The scale is composed of five subscales including Physical Inadequacy, Intellectual Inferiority, Emotional Inexpressiveness, Subordination to Women, and Performance Failure. The MGRS has good internal consistency (Cronbach Alphas = .90s) and good test-retest reliability ( $r=.93$ ). In addition, the construct validity of the scale has been supported through correlations with two other measures of self-reported stress (e.g., the Multidimensional Anger Inventory; Siegal, 1986, and the "State" form of the State-Trait Anxiety Scale; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983; Eisler, Skidmore, & Ward, 1988). Subjects responses to the MGRS were in exploratory analyses to examine the relation between male gender-role stress and intimate abusiveness.

### Procedure

Upon admittance to the Veterans Administration Medical Center Substance Abuse Treatment Program, participants completed the CTS, RAT, PAS, and MGRS screening measures as part of their intake assessment for the program. At this point, subjects were unaware of any connection between their responses on the screening measures and their participation in this study. During their second week in the treatment program, subjects were asked to present individually to a private laboratory room where they completed an informed consent form indicating their agreement to participate in this study. The consent form informed subjects that their agreement to participate in the study would allowed researchers access to their medical records which contained the screening measures described above (the CTS, RAT, PAS, and MGRS) as well as demographic information. The consent form also informed subjects that the study involved an examination of how they tend to handle various problem situations in their current relationship and that they were supposed to imagine themselves and their partner as the characters portrayed in the vignettes that would be presented by audiotape. Thus, at this point, subjects were fully aware of the true purpose of the study. The experimenter provided subjects standardized instructions about their task, answered any questions, and then asked them to start the audiotape. Using headphones, subjects privately listened to an audiotape containing five hypothetical vignettes. As instructed by the audiotape, following each vignette, each subject completed an NIQ, RAQ, and CRM. After listening to and completing measures for each vignette, participants were debriefed and reminded of their anonymity.

*Data Reduction.* As mentioned above, data from subjects who did not complete all required measures (CTS, RAT, NIQ, RAQ, and CRM) were eliminated from the primary data analyses. For each vignette, a decoding score relating to attributions of negative intent was determined for each subject by obtaining a composite

score from their responses to the five items comprising the NIQ.

Similarly, for each vignette, a decoding score relating to attributions of responsibility was determined for each subject by obtaining a composite score from their responses to the four items comprising the RAQ. In addition, aggregate NIQ and aggregate RAQ scores were determined by adding the composite scores for each measure across vignettes.

Coping responses for each vignette, as measured by the CRM, were independently coded by three graduate level experimenters who were "blind" to any other data pertaining to subjects. Coding of responses was accomplished using a standardized coding manual (Holtzworth-Munroe, personal communication, August 22, 1997; see Holtzworth-Munroe & Anglin, 1991) consisting of specific guidelines for evaluating the competency of subjects' responses to each of the hypothetical vignettes. Experimenters rated the competency of subjects' coping responses using a 4-point scale ranging from 1 (indicating a fully competent response) to 4 (indicating a fully incompetent response). A "fully competent" response was defined (see Gaffney & McFall, 1981) as a response that would very likely solve the current problem and make problems of the same type less likely in the future (e.g., negotiating mutually agreeable compromises and explaining thoughts and feelings). A "fully incompetent" response was defined as just the opposite (e.g., using threatening statements, name calling, sarcasm). The competency of coping responses for each subject was determined by averaging the code assigned by each rater. Interrater reliability averaged .80 across the three raters which was slightly higher than that reported in previous research (e.g., Holtzworth-Munroe & Anglin, 1991) using this method.

As in previous research (e.g., Holtzworth-Munroe & Hutchinson, 1993; Holtzworth-Munroe & Anglin, 1991), for the purpose of data analyses, subjects were dichotomized in terms of intimate abusiveness and level of distress in their current

relationship. First, subjects were classified into either a violent or non-violent group based upon their intimate abusiveness score as measured by the CTS. Subjects who endorsed any items indicating intimately abusive behavior in their current relationship (i.e., any endorsement of CTS items 11-17) were regarded as violent whereas subjects who denied engaging in any intimately abusive behaviors (i.e., failed to endorse CTS items 11-17) were classified as non-violent. Next, subjects were classified according to relationship distress as measured by the RAT. The mean score on the RAT was 77 ( $SD = 22$ ). Those who scored below the mean (indicating relatively low relationship satisfaction) were classified as distressed whereas subjects who scored above the mean (indicating relatively high relationship satisfaction) were regarded as non-distressed. By combining these categorization schemes, subjects were sorted into three groups: 1) Non-Violent/Non-Distressed ( $n = 19$ ), 2) Non-Violent/Distressed ( $n = 21$ ), and 3) Violent/Distressed ( $n = 17$ ). A quasi-experimental design was used with Violence group (Non-Violent/Non-Distressed, Non-Violent/Distressed, and Violent/Distressed) as the quasi-independent variable and scores on the NIQ, RAQ, and CRM as the dependent variables. Unless specified otherwise, all statistical analyses used an alpha level of .05, two-tailed statistical tests, and Least Significant Differences (LSD) post-hoc tests.

### Results

In order to test the first three major hypotheses of this study, the NIQ, RAQ, and CRM scores of the Violence groups (Non-Violent/Non-Distressed, Non-Violent/Distressed, and Violent/Distressed) were compared across all vignettes. Contrast analysis was used which, in accordance with hypotheses, allowed focused comparisons between groups (see Rosnow & Rosenthal, 1989; Rosenthal & Rosnow, 1985).

The first hypothesis was that abusive men, compared with non-abusive men, would attribute significantly greater negative

intent to their partner in the context of the hypothetical vignettes they were presented. To test this hypothesis, a planned contrast was conducted on the negative intent (NIQ scores) of the Violent/Distressed, Non-Violent/Non-Distressed, and Non-Violent/Distressed groups. In support of the prediction, a significant difference was found,  $F(1, 54) = 4.93, p < .05$  (residual between-groups variance,  $F = 1.02$ , non-significant). The nature of the significant difference in NIQ scores was examined using post-hoc tests which revealed statistically significant differences between the NIQ scores of the Violent/Distressed group ( $M = 16.5$ ) and the Non-Violent/Non-Distressed group ( $M = 13.5$ ). As might be expected, NIQ scores of the Non-Violent/Distressed group ( $M = 14.2$ ) fell between the two extreme groups; however, scores of this group did not differ significantly from the other groups. Thus, across vignettes, men characterized as Violent/Distressed tended to attribute significantly greater negative intent to their partner than did those characterized as Non-Violent/Non-Distressed. Taken together, these findings indicate that, in terms of negative intent attributions, only the extreme groups tended to show large differences across vignettes (see Table 1).

The second hypothesis was that abusive men, compared with non-abusive men, would attribute significantly greater responsibility (blameworthiness) to their partner in the context of the hypothetical vignettes they were presented. To test this hypothesis, a planned contrast was conducted on responsibility attribution scores (RAQ scores) of the Violent/Distressed, Non-Violent/Non-Distressed, and Non-Violent/Distressed groups. Consistent with the prediction, a statistically significant difference was obtained,  $F(1, 54) = 7.05, p < .05$  (residual between-groups variance,  $F = 1.43$ , non-significant). Post-hoc tests revealed statistically significant differences between the RAQ scores of the Violent/Distressed group ( $M = 18.1$ ) and those of both the Non-Violent/Non-Distressed group ( $M = 14.4$ ) and those

of the Non-Violent/Distressed group ( $M = 15.3$ ). No significant differences were found between the two Non-Violent groups. These findings indicate that, across vignettes, men in the Violent group tended to place significantly greater responsibility on their partner for the conflict compared with those in either of the Non-Violent groups (see Table 1).

The third hypothesis was that abusive men, compared with non-abusive men, would select significantly less competent coping strategies to manage the situations presented in the hypothetical vignettes. To test this hypothesis, a planned contrast was conducted on the coping response scores (CRM scores) provided by the Violent/Distressed, Non-Violent/Non-Distressed, and Non-Violent/Distressed groups. In support of the prediction, a significant difference was found,  $F(1, 54) = 4.01, p < .05$  (residual between-groups variance,  $F = .78$ , non-significant). Further, post-hoc tests revealed a marginally significant difference ( $p < .06$ ) between the CRM scores of the Violent/Distressed group ( $M = 10.0$ ) and those of the Non-Violent/Non-Distressed group ( $M = 8.1$ ). No significant difference was found between the two Non-Violent groups in terms of CRM scores. These findings indicate that, on average, men in the Violent group tended to provide less competent coping responses across vignettes compared with men in the Non-Violent/Non-Distressed group (see Table 1).<sup>1</sup>

The fourth hypothesis was that the association between intimate abusiveness and the competency of coping responses would be mediated by attributions men make about their partner's behavior. Put another way, the question was whether an underlying reason why intimately abusive men tend to select less competent coping strategies is due, in large part, to the negatively biased attributions they make about their partner's behavior in the context of conflict situations. In order to address this hypothesis, a series of four multiple regression equations were estimated (see Baron & Kenny, 1986) to test the

mediational model shown in Figure 2. As shown in Table 2, the first equation showed that intimate abusiveness (CTS scores) were significantly associated ( $r = .34$ ) with men's attributions about their partner's behavior (RAQ scores),  $F(1, 55) = 7.23, p < .05$ .

The second equation revealed that men's attributions about their partner's behavior was significantly related ( $r = .295$ ) to the competency of their coping responses (CRM scores),  $F(1, 55) = 5.24, p < .05$ . The third equation showed that intimate abusiveness is moderately, yet significantly, associated ( $r = .26$ ) with the competency of coping responses,  $F(1, 55) = 4.12, p < .05$ . The fourth equation was used to examine whether the association between intimate abusiveness and the competency of coping responses was mediated by men's attributions about their partner's behavior. This was accomplished by determining the strength of the association between intimate abusiveness and competency of coping responses while controlling for men's attribution scores. The fourth equation was also significant,  $F(2, 54) = 3.58, p < .05$  indicating that intimate abusiveness and attribution scores were significantly associated with the competency of coping responses. Most importantly however, as shown in Table 2, equation 4 showed that when men's attribution scores were statistically controlled, the previously significant association between intimate abusiveness and competency of coping responses ( $r = .264$ ; shown in equation 3) failed to reach significance in the equation 4 ( $r = .185; p > .05$ ). This indicates that men's attributions about their partner's behavior may significantly mediate the relation between intimate abusiveness and the competency of coping responses.

Follow-up analyses were conducted to examine whether the change in strength of association from equation 3 to equation 4 was statistically significant using a significance test provided by Sobel (1982). This test was used to determine whether the beta weight associated with intimate abusiveness and competency of coping responses changed significantly as a result of

statistically controlling variation associated with men's attribution scores. Contrary to optimistic expectation, a non-significant change in beta weight was found. This finding suggests that, although attribution may significantly mediate the association between intimate abusiveness and the competency of coping responses (i.e., rendering this association statistically no different from zero), the absolute change in association was not great enough to assume that the beta weights were statistically different from each other. However, this finding is likely due to a "floor effect" in that the change in beta weight was restricted by the moderate (as opposed to relatively strong) association between intimate abusiveness and competency of coping found initially. Thus, even with the occurrence of significant mediation, one would not necessarily expect the absolute change in beta weight to be large in a statistical sense.

Taken together, the above regression analyses indicate that one underlying reason why violent men tend to select poor coping responses when faced with certain types of partner conflict can be explained by their tendency to make negatively biased attributions about their partner's behavior (e.g., to attribute greater blame to their partner). However, one might argue that other mediational models of the same variables could account for the present findings. Thus, in order to bolster the hypothesis that attribution serves as a mediator in this model, alternative models were examined which test other ways one might construe the associations between intimate abusiveness, attribution, and competency of coping responses.

One explanation for the associations between attribution, intimate abusiveness, and competency of coping might be that intimate abusiveness mediates the association between competency of coping and attribution. According to this explanation, it would be argued that the association between attributions about one's partner and the competency of coping responses could be

accounted for by one's propensity toward intimate abusiveness. However, as shown in Table 3, the fact that the relation between attribution and competency of coping remains significant after controlling unique variation associated with intimate abusiveness argues against the plausibility of this explanation.

Another explanation might be that one's competency in coping mediates the association between attribution and abusiveness. Thus, according to this explanation, it would be argued that the association between attributions about one's partner and propensity toward intimate abusiveness could be explained by the competency of one's coping strategies. However, as shown in Table 4, the fact that the relation between attribution and abusiveness remains significant while controlling unique variation associated with competency of coping responses argues against this explanation.

In summary, compared with the explanatory model advanced by this study, as shown in Tables 3-4, alternative models were found to be significantly less plausible ways of explaining the associations between intimate abusiveness, attribution, and competency of coping. Thus, taken together, these findings bolster the notion that an underlying reason why men who show a higher propensity toward intimate abusiveness select relatively poor coping strategies can be explained, to a significant extent, by their tendency to make negatively biased attributions about their partner's behavior.

#### Exploratory Analyses

In addition to testing a priori hypotheses, several additional analyses were conducted to further explore the data. Of specific interest was whether there were significant differences between violence groups in terms of the frequency of coping responses that they provided as well as the average competency of the coping response alternatives they provided. In addition, based upon the above findings showing between group differences across vignettes, analyses were conducted to examine

the nature of these differences by analyzing attribution and coping response scores for each vignette. Analyses were also conducted to determine how the PAS, a more subtle measure of intimate abusiveness, compared with the CTS in terms of revealing differences between abusive and non-abusive men's attributions and coping responses. Finally, based upon previous research (e.g., Copenhaver et al., 1997), analyses were conducted to examine the link between masculine gender-role stress, intimate abusiveness, attributions, and coping responses.

*Frequency and Average Competency of Coping Response Alternatives.* Further analyses were conducted to compare groups with respect to the frequency and average competency of coping response alternatives provided when responding to the CRM question "What are all the possible things that you could do to handle the situation you just heard about?". Interestingly, no significant differences were found. Specifically with respect to the frequency of coping response alternatives, no significant differences were found between the Violent/Distressed group ( $M = 2.5$ ), the Non-Violent/Distressed ( $M = 2.3$ ), and the Non-Violent/Non-Distressed group ( $M = 2.5$ ). On average, participants provided two to three coping response alternatives. Further, no significant differences were found between groups in terms of the average competency of the coping response alternatives they provided across vignettes (Violent/Distressed group  $M = 1.9$ , Non-Violent/Distressed group  $M = 1.8$ , and Non-Violent/Non-Distressed group  $M = 1.8$ ). On average, participants provided coping response alternatives characterized as falling between "fully competent" and "slightly competent" (1 = fully competent, 2 = slightly competent).<sup>2</sup>

The fact that, on average, men across groups tended to generate two to three coping response alternatives that fell between fully competent and slightly competent responses suggests that they were able to generate a comparable number of relatively competent coping response alternatives. However, taken together

with previous results, it appears that when asked what they imagined they would *actually do* to handle the situation (CRM question 2), men in the Violent group tended to select significantly less competent responses from their repertoire. This indicates that differences in the competency of coping responses found above may have less to do with violent men's hypothesized deficits in generating a number of good coping response alternatives as it does with their process of deciding to select a good alternative (see Table 5).

*Group Differences on Each Vignette.* Based on findings showing significant group differences across all vignettes in terms of NIQ, RAQ, and CRM scores, further analyses were conducted to explore the nature of these group differences.<sup>3</sup> In order to determine which vignettes elicited the greatest group differences in NIQ, RAQ, and CRM scores, planned contrasts were conducted separately for each vignette. As shown in Table 6, the largest group differences were found when examining Vignettes 4 and 5 which involved themes of rejection (i.e., the partner not paying attention to the man; the partner making fun of the man for a shirt he just purchased). For Vignette 4, marginally significant group differences were found when comparing Violence Group scores on the NIQ,  $F(1, 54) = 3.76, p < .06$  (residual between-groups variance,  $F = 1.05$ , non-significant). Post-hoc tests showed that men in the Violent/ Distressed group ( $M = 3.3$ ) tended to attribute significantly greater negative intent to their partner's behavior compared with those in the Non-Violent/Non-Distressed group ( $M = 2.6$ ). No significant differences in NIQ scores were found between the other groups. Thus, only the extreme groups differed in terms of their negative intent scores on Vignette 4.

Vignette 4 elicited substantial group differences in terms of responsibility attributions,  $F(1, 54) = 9.80, p < .05$  (residual between-groups variance,  $F = 1.72$ , non-significant). Post-hoc tests revealed that men in the Violent group ( $M = 4.1$ )

attributed significantly greater responsibility to their partner in Vignette 4 than did those in both the Non-Violent/Non-Distressed group ( $M = 3.1$ ) and those in the Non-Violent/Distressed group ( $M = 3.2$ ). In addition, Vignette 4 elicited significant group differences in terms of coping responses these men offered,  $F(1,54) = 5.29$ ,  $p < .05$  (residual between-groups variance,  $F = 1.15$ , non-significant). In this case, post-hoc tests revealed that men in the Violent/Distressed group ( $M = 2.5$ ) selected significantly less competent coping strategies than those in the Non-Violent/Non-Distressed group ( $M = 1.7$ ). Thus, only the extreme groups differed significantly in terms of the competency of coping responses (see Table 6).

Analyses revealed a similar pattern of group differences when examining scores on Vignette 5 which also involved a theme of rejection. Specifically with respect to negative intent scores, significant differences were found,  $F(1, 54) = 9.10$ ,  $p < .05$  (residual between-groups variance,  $F = 1.63$ , non-significant). Post-hoc tests showed that the Violent group ( $M = 3.1$ ) attributed significantly greater negative intent to their partner's behavior in Vignette 5 than did those in either the Non-Violent/Non-Distressed group ( $M = 2.2$ ) or the Non-Violent/Distressed group ( $M = 2.4$ ). Similarly, analyses showed large group differences with respect to responsibility attribution scores for Vignette 5,  $F(1,54) = 9.38$ ,  $p < .05$  (residual between-groups variance,  $F = 1.69$ , non-significant). Again, those in the Violent group ( $M = 3.2$ ) placed significantly greater responsibility on their partner than those in either the Non-Violent/Non-Distressed group ( $M = 2.4$ ) or those in the Non-Violent/Distressed group ( $M = 2.5$ ). Marginally significant differences were also found when comparing the competency of coping responses provided by the Violent/Distressed group ( $M = 2.1$ ), the Non-Violent/Non-Distressed group ( $M = 1.7$ ), and the Non-Violent/Distressed group ( $M = 1.7$ ),  $F(1,54) = 2.62$ ,  $p < .11$  (residual between-groups variance,  $F = .49$ , non-significant).

However, post-hoc tests revealed no statistically significant differences between groups (see Table 6).

Taken together, analyses of individual vignettes tend to support previous findings (e.g., Holtzworth-Munroe & Hutchinson, 1993; Holtzworth-Munroe & Anglin, 1991) which indicate that differences between violent and non-violent men may be situation specific. These analyses show that there seem to be relatively greater differences between violent and non-violent men (particularly non-distressed men) when exploring their attributions and coping responses in the context of situations involving themes of interpersonal rejection as opposed to situations involving public embarrassment or jealousy.

*Regression Analysis for Vignettes Involving Rejection.*

Additional regression analyses were conducted to explore the mediational model shown in Figure 2 specifically in terms of situations involving themes of rejection (Vignettes 4 and 5) which were found to elicit the greatest differences between groups on the NIQ, RAQ, and CRM scores. Not surprisingly, as shown in Table 7, results showed a mediational effect of attribution when examining the association between men's intimate abusiveness and their competency of coping. That is, particularly when considering the vignettes involving themes of rejection, the tendency for intimately abusive men to select incompetent coping strategies can be explained to a significant extent by the negatively biased attributions they made about their partner's behavior.

*Analyses of the PAS vs CTS.* Analyses were conducted to examine how the PAS, a more subtle measure of men's propensity toward intimate abusiveness, compared with the CTS in terms of revealing differences in men's attributions and competency of coping responses. The mean score for the PAS was 68.2 (SD = 14.2). Subjects who scored above the mean were classified as the High Propensity Toward Abusiveness group while those who scored at or below the mean were regarded as the Low Propensity Toward

Abusiveness group. As in previous analyses (see above), subjects were also classified in terms of relationship distress level. Thus, subjects were sorted into three groups: Low Propensity/Non-Distressed, Low Propensity/Distressed, and High Propensity/Distressed. With respect to NIQ scores, contrast analyses revealed significant differences between the High Propensity/Distressed group and the Low Propensity groups,  $F(1, 54) = 4.54, p < .05$ . Post-hoc analyses showed marginally significant differences ( $p < .06$ ) between the High Propensity group ( $M = 15.7$ ) and the Low Propensity/Non-Distressed group ( $M = 13.2$ ). No other significant between groups differences were found in terms of NIQ scores.

In terms of RAQ scores, a slightly different but significant pattern of results was obtained,  $F(1, 54) = 4.54, p < .05$ . Post-hoc tests revealed that the High Propensity group ( $M = 17.3$ ) attributed significantly greater responsibility to the partner than did the Low Propensity/Distressed group ( $M = 14.1$ ). No other significant differences were found with respect to responsibility attribution scores. Thus, in this case, while a significant difference was found between the High Propensity/Distressed group and the Low Propensity/Distressed group, no significant differences were found when comparing the extreme groups.

With respect to competency of coping responses, no significant group differences were found ( $p > .05$ ). In fact, the competency of the coping responses provided across groups was quite comparable (Low Propensity/Non-Distressed  $M = 8.35$ ; Low Propensity/Distressed  $M = 9.0$ ; High Propensity/Distressed  $M = 9.3$ ). Thus, although grouping subjects in terms of PAS scores provided comparable differences in NIQ and RAQ scores compared with those found when using the CTS, the PAS was ineffective in revealing coping response differences between groups.

*Analysis of MGRS, Intimate Abusiveness, Attributions, and Coping.* Further exploratory analyses were conducted to

examine the association between male gender-role stress (MGRS), intimate abusiveness (CTS and PAS), attributions of partner's negative intent and responsibility (NIQ and RAQ), and competency of coping (CRM). Correlational analyses revealed non-significant correlations between scores on the MGRS and scores on the NIQ, RAQ, and CRM ( $p > .10$ ). However significant correlations ( $p < .01$ ) were found between subjects' scores on the MGRS with their scores on the CTS ( $r = .39$ ) and the PAS ( $r = .33$ ). Based on this analysis, an analysis of variance was conducted to compare subjects who scored relatively high on the MGRS vs those who scored relatively low on the measure in terms of their scores on the CTS and PAS. The mean score on the MGRS was 82 ( $SD = 32$ ). Subjects who scored at least one half of a standard deviation below the mean were classified as the Low MGRS group while those who scored at least one half of a standard deviation above the mean were regarded as the High MGRS group. Results revealed that responses of the High MGRS group indicated significantly greater intimately abusive behavior (total CTS scores) compared with scores of the Low MGRS group,  $F(1, 47) = 9.03, p < .05$ . Further, results showed significant differences between High and Low MGRS groups in terms of their scores on the PAS,  $F(1, 46) = 4.60, p < .05$ . Thus, consistent with previous research (Copenhaver et al., 1997), there seems to be a moderately strong link between men's cognitive appraisal style, as measured by the MGRS, and their propensity to engage in intimately abusive behavior.

#### Discussion

Previous research suggests that abusive and non-abusive men differ in terms of attributions and coping responses in the context of certain ambiguous conflict situations involving their partner. However, prior to the present study, the question of how men's attributions about their partner directly impacts men's coping responses had not yet been tested empirically. The present study expanded our understanding of factors underlying

intimate abusiveness by testing McFall's (1982) social-cognitive model in an integrated fashion. That is, in addition to examining how abusive and non-abusive men interpret and cope with ambiguous conflict situations, this study also examined the direct influence of these men's attributions on the competency of their coping responses.

It was hypothesized that, not only would there be significant differences between abusive and non-abusive men in terms of their attributions and coping responses, but their attributions would mediate the association between intimate abusiveness and coping responses. Thus, it was predicted that an underlying reason why intimately abusive men would select poor coping responses could be explained by the negatively biased attributions they made regarding their partner's behavior.

Taken together, findings generally supported predictions. First, when considering all vignettes presented, men in the Violent/Distressed group attributed significantly greater negative intent and responsibility to their partner than did those in the Non-Violent/Non-Distressed group. In addition, men in the Violent/Distressed group attributed greater responsibility to their partner than did those in the Non-Violent/Distressed group. Thus, in terms of attributions about their partner, the violent group tended to process the vignettes in a more negatively biased manner compared with the non-violent groups.

Interestingly, compared with the attribution of negative intent measure (NIQ), the measure of attributions of responsibility measure (RAQ) effectively discriminated between violent and non-violent men regardless of distress level. That is, not only were significant differences found between the extreme groups (Violent/Distressed vs Non-Violent/Non-Distressed) in terms of RAQ scores, but there was also a significant difference between the Violent/Distressed group and the Non-Violent/Distressed group. This suggests that, independent of distress level within their relationship, violent men tended to

attribute greater responsibility to their partner than did non-violent men.

These findings are somewhat inconsistent with recent research (e.g., Holtzworth-Munroe & Hutchinson, 1993) which has shown the NIQ, as compared with the RAQ, to be more effective in discriminating between violent and non-violent groups independent of distress level. However, this discrepancy may be due in part to differences in sample characteristics (i.e., particularly the severity of domestic violence problems) between the present study and previous studies. Rather than comparing relatively heterogeneous and extreme groups (i.e., extremely violent men who have been arrested and are in a clinical treatment program for domestic violence vs non-violent men recruited from the community; Holtzworth-Munroe & Hutchinson, 1993), data from the present study were obtained from a relatively homogeneous sample of military veterans voluntarily participating in an inpatient substance abuse treatment program whose primary diagnosis was substance dependence. In support of this notion, previous research has shown that the prevalence and frequency of domestic violence among substance abusers, although noteworthy, is significantly lower than that for men receiving treatment specifically for domestic violence (see Murphy & O'Farrell, 1994). Thus, some discrepancy in findings are likely accounted for by differences in sample characteristics, particularly severity of domestic violence problems.

In terms of the competency of coping responses provided, predictions were, again, generally supported. Marginally significant differences were found between extreme groups (i.e., Violent/Distressed vs Non-Violent/Non-Distressed). Thus, consistent with previous research (e.g., Holtzworth-Munroe & Anglin, 1991), on average, violent men said that they would handle the conflict situations in ways that were less competent than men at the other extreme (Non-Violent/Non-Distressed). However, as was found when examining scores on the NIQ, no

differences were found when comparing the Violent/Distressed group with the Non-Violent/Distressed group. This finding is inconsistent with previous research (e.g., Holtzworth-Munroe & Anglin, 1991) which reported finding relatively large differences between violent and non-violent groups independent of distress level. However, again, because previous research (e.g., Holtzworth-Munroe & Anglin, 1991) has used relatively extreme samples, this discrepancy may be explained to some extent by differences in sample characteristics.

Results from the regression analyses sharpened our understanding of the relation between intimate abusiveness, attributions, and competency of coping. In effect, these analyses provided a more complete view of how social-cognitive variables within McFall's (1982) framework may apply to the problem of intimate abusiveness. As predicted, results showed that intimate abusiveness is significantly related to negatively biased attributions about the partner and poor coping, that negative attributions about the partner are significantly related to poor coping, and that the association between intimate abusiveness and poor coping is significantly mediated by attributions made about the partner. These findings are particularly noteworthy since they suggests that an underlying reason why violent men tend to select poor coping responses may be explained by the negatively biased attributions they make about their partner. Support for the proposed mediational model was strengthened by the fact that alternative mediational models that were tested were found less plausible in terms of explaining the associations between these variables.

In general, these findings have important implications for domestic violence treatment programs within and aside from substance abuse programs. Specifically, it would seem more efficacious to target and challenge violent men's negatively biased attributions about their partner's behavior rather than presuming that these men have more generalized coping deficits

(i.e., don't know any other ways of handling partner conflict). As discussed previously, it appears that violent men have a repertoire of coping responses that is quite comparable to that of their non-violent counterparts. However, since violent men tend to differ in how they perceive conflict situations, then, on that basis, they may fail to select comparable coping responses to enact. In effect, the negative way in which violent men tend to handle conflict situations involving their partner may be largely "driven" by the negative way in which they perceive their partner's behavior. As suggested by Steele and Josephs (1990), such misconstrual may be particularly characteristic of substance abusers given their tendency to misinterpret themselves and others while impaired by substance use.

Exploratory analyses also provided useful information. When examining between groups differences in terms of the frequency and average competency of coping response provided, no significant differences were found. In effect, men in all groups were able to generate a comparable number of relatively competent responses to the conflict situations presented. It is interesting to note, however, that although the men in the violent group may have been able to generate an equivalent number of competent coping responses, by definition, in reality they have demonstrated less competence in the coping responses they have enacted. Thus, greater group differences may have emerged if the present study had somehow assessed participants' *enactment* of coping responses rather than simply assessing their choice of coping responses.

Consistent with previous studies (e.g., Holtzworth-Munroe & Hutchinson, 1993; Holtzworth-Munroe & Anglin, 1991), analyses suggested that certain types of vignettes tended to elicit greater between group differences in attributions and competency of coping responses. Situations involving themes of rejection (e.g., The partner isn't paying attention to the man; The partner is making fun of a new shirt the man has just purchased) produced

relatively greater differences in terms of attributions as well as coping responses. These findings suggest that such differences between violent and non-violent men may be situation-specific. That is, one would not necessarily expect all types of conflict situations to be equally problematic for violent men. Rather, it would seem that situations that elicit feelings of rejection tend to be more problematic for violent men to accurately interpret and to competently manage.

Exploratory analyses comparing the PAS, a more subtle measure of propensity toward intimate abusiveness, with the CTS, were also informative in terms of revealing differences in men's attributions about their partner and coping responses. In general, results showed that men who were classified as the having a high propensity toward abuse (high PAS scorers) tended to attribute significantly greater negative intent and greater responsibility to their partner as compared with the low propensity groups (low PAS scorers). However, no significant differences were found between high and low propensity groups with respect to the competency of coping responses. Thus, it appears that screening individuals on the basis of PAS scores may be useful in distinguishing men in terms of differing attribution tendencies but less effective in distinguishing men in terms of differing coping skills. Taken together, these analyses suggest that scores on the CTS may be a better, although less subtle, indicator of significant intimate abusiveness problems. This conclusion would seem logical since the PAS, by definition, assesses predisposing factors thought to lead to intimate abusiveness whereas the CTS measures one's recent history of actually engaging in intimately abusive behavior.

The last set of exploratory analyses were conducted to examine the association between male gender-role stress (MGRS) and intimate abusiveness. Consistent with recent research showing significant links between MGRS, anger, and intimate abusiveness (e.g., Copenhaver et al., 1997), a significant

association was found between MGRS and measures of intimate abusiveness. That is, men who scored relatively high on the MGRS showed significantly greater levels of intimate abusiveness compared to those who scored relatively low. Although the MGRS measures men's cognitive appraisal in terms of hypersensitivity to perceived threats to masculinity, this finding provides further evidence of a link between social-cognitive variables and propensity toward intimate abusiveness.

*Limitations of the Present Study.* In order to place the above findings in the proper context, limitations of the present study should also be considered. First, because this study implemented a quasi-experimental design rather than using classical experimental approach, no cause-effect conclusions were possible. Although the proposed mediational model suggests that a logical underlying reason why intimately abusive men choose poor (i.e., violent) coping strategies is due to their tendency to interpret ambiguous conflict situations in a negatively biased manner, it is not possible to conclude that their attributions cause their poor coping responses per se. In effect, given the correlational nature of this study, it is not possible to make conclusions about the direction of the associations in the proposed mediational model. One might argue that the mediational model suggests that men's attributions mediate the association between intimate abusiveness and the competency of coping but the direction of associations is the opposite as that proposed. Accordingly, it may be that men who typically select poor coping strategies have a higher propensity toward abusive behavior because of the attributions they make about their partner. Thus, future research should address the plausibility of alternative conceptualizations of intimate abusiveness.

Further, it should be understood that, although the present study has considered only a few social-cognitive factors thought to lead to intimate abusiveness, this is not to suggest that these are the only types of factors or the only important ones.

Domestic violence researchers have offered many underlying reasons for intimately abusive behavior ranging from societal causes (Dobash & Dobash, 1978; Straus, 1976; Goode, 1971) to physiological causes (Jacobson et al., 1994). Given the range of research approaches and findings in this area, it is reasonable to assume that domestic violence results from a complex set of causal factors rather than stemming from some singular factor.

Researchers have long debated the impact of perceived power between partners as a precipitating factor in intimate abusiveness (see Babcock et al., 1993; Rouse, 1990). That is, partner-directed abusive behavior (e.g., verbal/physical aggression, intimidation) may be used by some men to gain or maintain one's power within the relationship or when one perceives a threat to their sense of power (Babcock et al., 1993). This notion is not inconsistent with the framework presented in the present study. In fact, it would seem logical that men who are hypersensitive to perceived changes in power would be more likely to construe their partner's behavior in a negatively biased way. Consistent with social cognitive theory of self-regulation (see Bandura, 1991), once an abusive strategy is experienced as having positive consequences (e.g., reestablishing one's power within the relationship, extinguishing undesired behavior), future abusive behavior would be expected to occur with the expectation of similar positive consequences.

Researchers have also suggested that the abusive male's self-appraisal may play a major role in domestic violence. As mentioned, Baumeister and associates (1996) have concluded that individuals characterized by a favorable but unstable self-appraisal may be at greater risk for intimate abusiveness compared with individuals whose self-appraisal is low and/or stable. Consistent with Dutton's view of the abusive male (see Dutton, 1995a), these researchers suggest that males with a favorable yet unstable self-appraisal (i.e., view themselves positively but tend to be insecure with this self-appraisal) tend

to be more reactive to negative feedback received from others. Such individuals may therefore be strongly motivated to reestablish their favorable self view through aggressive behavior directed at the source of the negative feedback (in this case, their partner). Accordingly, it would seem logical that men with a high but unstable self-appraisal would be more vigilant with regard to partner behavior and, insecure about their positive self-image, would tend to interpret ambiguous partner behavior in a negatively biased way. Although untested in the present study, this conceptualization of the abusive male tends to complement the social-cognitive framework implemented in the present study by suggesting underlying reasons for some men's tendency to make negatively biased partner-related attributions.

As stated, it is likely that domestic violence problems arise from a complex set of causal factors, only a few of which have been considered in the present study. However, these limitations notwithstanding, the present study provides valuable information to health care professionals and researchers in that it guides them to target or research potential causal factors (i.e., attributions about their partner's behavior) that may be more amenable to change.

Another limitation of the present study compared with similar studies (e.g., Holtzworth-Munroe & Hutchinson, 1993; Holtzworth-Munroe & Anglin, 1991) pertains to differences in sample characteristics. In the present study, data were obtained from a relatively homogeneous sample of male military veterans who had voluntarily sought substance abuse treatment from an inpatient substance abuse treatment program at a Veterans Administration Medical Center. Although many participants had clearly committed domestic violence offenses, none were in treatment for these offenses and all subjects' primary presenting problem was substance dependence. In fact, veterans who had any pending legal issues including those pertaining to domestic violence offenses were denied substance abuse treatment at this

facility. Thus, the most severe domestic violence offenders were, in effect, screened from participating in the present study. In contrast, similar studies (e.g., Holtzworth-Munroe & Hutchinson, 1993; Holtzworth-Munroe & Anglin, 1991) obtained data from relatively heterogeneous extreme samples (i.e., men arrested and currently in treatment for domestic violence offenses vs non-violent men recruited from the community). In addition, because the present study included only individuals currently involved in a relationship, it is possible that the more violent individuals, who, as a result of their extremely violent behavior, were not included. Thus, in hindsight, it would seem unreasonable to expect the same relatively strong effect sizes to be obtained in the present study. As indicated by previous research (e.g., Murphy & O'Farrell, 1994), it is likely that more definitive between group differences would have been detected if more extreme violent and non-violent participants had been sampled.

In spite of such limitations, however, it is apparent that significant differences emerged even within the relatively homogeneous and less violent sample examined in the present study.

A final limitation pertains to a measurement issue. No problems were found with respect to the attributions of negative intent and responsibility (NIQ and RAQ) measures. However, it seems that, at least with the sample examined, there may be some practical difficulties with regard to the coping response measure (CRM). Initially, many subjects seemed to have difficulty understanding what was being asked or how they were supposed to respond. It may be that the open-ended format of the CRM, as compared with the forced-choice format of the NIQ and RAQ, was somewhat confusing and required greater thought. This raises the possibility that error variance associated with the CRM may have clouded otherwise more discernable differences between groups. In retrospect, perhaps a forced-choice version of the CRM or a concurrent coping measure would have eliminated this potential

source of error variance.

*Future Directions.* Based upon findings and limitations of the present study, several suggestions should be made for future research on male intimate abusiveness. First, future research should address the potential problem of assessing the competency of coping responses. Although the open-ended coping response measure used in this and similar studies allows a greater range of responses, a forced-choice format may provide a clearer and more precise measure of coping responses. Thus, future efforts should be made to develop a more refined assessment instrument for detecting differences in coping responses.

Second, future research should attempt to provide a more comprehensive understanding of intimate abusiveness based on McFall's (1982) social-cognitive model by examining behavioral differences between violent and non-violent men. The present study has shown reliable evidence of differences with respect to men's decoding (i.e., attributions about their partner's behavior) and decision-making (i.e., coping response selection).

Given these findings, it would be informative to examine possible behavioral differences in terms of the enactment stage of the social-cognitive model. In addition, future research should examine the contribution of other potential causal factors (e.g., self-appraisal; Baumeister et al., 1996) that might complement the social-cognitive framework examined in the present study. This would allow health care professionals greater insight into the range of factors leading to intimate abusiveness.

Third, and in a related vein, experimental research should be conducted to examine how the manipulation of decoding (attribution) may influence the enactment of coping responses. In effect, this would provide direct evidence of whether targeting cognitive processes could effectively modify intimately abusive responses. It may be that intervening at a cognitive level (e.g., teaching more flexible or realistic ways of

interpreting ambiguous conflict situations) could effectively be used in treatment to alter abusive behavioral responses. This approach would clearly conform with the assumptions underlying the cognitive-behavioral framework commonly implemented in a variety of empirically-validated psychological treatments (see Crits-Christoph, Chambless, Frank, & Brody, 1995). Moreover, such empirical findings would answer the ultimate question as to how best to intervene so that the problem of domestic violence can be effectively treated.

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## Footnotes

<sup>1</sup> Contrast analyses of NIQ, RAQ, and CRM scores were also conducted including a Violent/Non-Distressed group. The Violent/Non-Distressed group's scores on the NIQ ( $M = 14.0$ ), the RAQ ( $M = 15.3$ ), and CRM ( $M = 8.5$ ) were very similar to those of the Non-Violent/Distressed group's scores on these measures. Thus, no additional significant between group differences were found as a result of including the Violent/Non-Distressed group in the analyses.

<sup>2</sup> Due to the possibility of subjects providing socially desirable coping responses with increased deliberation time, an examination was made of the first coping response that subjects provided for each vignette. Analyses were conducted to explore possible differences between violence groups in terms of the competency of the first coping response they provided to the question "What are all the possible things you could do to handle the situation". No significant between group differences were found.

<sup>3</sup> Three repeated measures analyses of variance were initially conducted to examine differences between groups in terms of NIQ, RAQ, and CRM scores for each of the five vignettes. The first analysis used Vignette (NIQ score for each of the five vignettes) as a within-subjects factor and Violence Group (Non-Violent/Non-Distressed, Non-Violent/Distressed, or Violent/Distressed) as a between-subjects factor. Similarly, the second analysis used Vignette (RAQ score for each of the five vignettes) as a within-subjects factor and Violence Group (Non-Violent/Non-Distressed, Non-Violent/Distressed, or Violent/Distressed) as a between-subjects factor. The third analysis used Vignette (CRM score for each of the five vignettes) as a within-subjects factor and Violence Group (Non-Violent/Non-Distressed, Non-Violent/Distressed, or Violent/Distressed) as a between-subjects factor. In all three repeated measures analyses, a main effect of Vignette was found and a main effect of Violence Group was found. However, no Vignette x Violence Group interaction was found

suggesting that, overall, group differences remained relatively consistent across vignettes. Thus, it was decided to use a simpler approach to determine which vignettes tended to elicit the greatest between group differences on the NIQ, RAQ, and CRM.

Table 1

Total Scores Across Vignettes on Attribution of Negative Intent , Attribution of Responsibility, and Competency of Coping Response for Non-Violent/Non-Distressed (NV/ND), Non-Violent/Distressed (NV/D), and Violent/Distressed (V/D) Groups

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<u>Measure</u>	<u>TOTAL SCORES BY GROUP</u>		
	<u>NV/ND</u>	<u>NV/D</u>	<u>V/D</u>
Attribution of Negative Intent	13.5 <sup>a</sup>	14.2	16.5 <sup>a</sup>
Attribution of Responsibility	14.4 <sup>a</sup>	15.3 <sup>b</sup>	18.1 <sup>ab</sup>
Competency of Coping Responses	8.1 <sup>*</sup>	8.5	10.0 <sup>*</sup>

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*a* and *b* indicate a statistically significant difference between groups based upon post-hoc tests at the  $p < .05$  level

\* indicates a marginally significant difference at the  $p < .10$  level

Table 2

Regression Analysis Used to Test Attribution as a Mediator in the Association Between Intimate Abusiveness and Competency of Coping Responses

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Equation	Variables Tested	Significance	Regression Coefficient
1	Abusiveness and Attribution	$F(1, 55) = 7.23, p < .05$	.341**
2	Attribution and Competency of Coping Responses	$F(1, 55) = 5.24, p < .05$	.295**
3	Abusiveness and Competency of Coping Responses	$F(1, 55) = 4.12, p < .05$	.264**
4	Abusiveness and Competency of Coping Responses <i>with Attribution as mediator</i>	$F(2, 54) = 3.58, p < .05$	.185 (ns)

---

\*\* indicates a statistically significant association at the  $p < .05$  level

ns indicates non-significant association ( $p > .10$ )

Table 3

Regression Analysis Used to Test Intimate Abusiveness as a Mediator in the Association Between Competency of Coping Responses and Attribution

---

Equation	Variables Tested	Significance	Regression Coefficient
1	Attribution and Abusiveness	$F(1, 55) = 7.22, p < .05$	.341**
2	Abusiveness and Competency of Coping Responses	$F(1, 55) = 4.12, p < .05$	.264**
3	Attribution and Competency of Coping Responses	$F(1, 55) = 5.24, p < .05$	.296**
4	Competency of Coping Responses and Attribution <i>with Abusiveness as the mediator</i>	$F(2, 54) = 5.19, p < .05$	.220*

---

\*\* indicates a statistically significant association at the  $p < .05$  level

\* indicates a marginally significant association at the  $p < .10$  level

Table 4

Regression Analysis Used to Test Competency of Coping as a Mediator in the Association  
Between Attribution and Intimate Abusiveness

---

Equation	Variables Tested	Significance	Regression Coefficient
1	Attribution and Competency of Coping Responses	$F(1, 55) = 5.24, p < .05$	.296**
2	Competency of Coping Responses and Abusiveness	$F(1, 55) = 4.12, p < .05$	.264**
3	Attribution and Abusiveness	$F(1, 55) = 7.23, p < .05$	.341**
4	Attribution and Abusiveness <i>with Competency of Coping as the mediator</i>	$F(2, 54) = 5.19, p < .05$	.283**

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\*\*

indicates a statistically significant association at the  $p < .05$  level

Table 5

Frequency and Competency of Alternative Coping Responses Provided by Non-Violent/Non-Distressed (NV/ND), Non-Violent/Distressed (NV/D), and Violent/Distressed (V/D) Groups Across Vignettes

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<u>Measure</u>	<u>SCORES BY GROUP</u>		
	<u>NV/ND</u>	<u>NV/D</u>	<u>V/D</u>
Frequency of Coping Responses Alternatives	2.5	2.3	2.5
Competency of Coping Response Alternatives	1.8	1.8	1.9

Table 6

Mean Attribution of Negative Intent (NIQ), Attribution of Responsibility (RAQ), and Competency of Coping Response (CRM) Scores for Non-Violent/Non-Distressed (NV/ND), Non-Violent/Distressed (NV/D), and Violent/Distressed (V/D) Groups for Each Vignette

<i>THEME/VIGNETTE</i>	<i>NIQ</i>			<i>RAQ</i>			<i>CRM</i>		
	NV/ND	NV/D	V/D	NV/ND	NV/D	V/D	NV/ND	NV/D	V/D
<i>Rejection</i>									
Partner isn't paying attention	2.6 <sup>a</sup>	2.9	3.3 <sup>a</sup>	3.1 <sup>a</sup>	3.2 <sup>b</sup>	4.1 <sup>ab</sup>	1.7 <sup>a</sup>	1.9	2.5 <sup>a</sup>
Partner is making fun of new shirt man just purchased	2.2 <sup>a</sup>	2.4 <sup>b</sup>	3.1 <sup>ab</sup>	2.4 <sup>a</sup>	2.5	<sup>b</sup> 3.2 <sup>ab</sup>	1.7	1.7	2.1*
<i>Jealousy</i>									
Unidentified male telephones Partner	2.6	2.7	3.2*	2.6	2.9	3.5*	1.2	1.4	1.6
Male is flirting with partner at a social gathering	3.2	3.3	3.9*	3.4	3.6	4.0	2.1	1.9	2.3
<i>Potential Public Embarrassment</i>									
Partner asks man to cancel plans with friends	2.8	2.9	2.9	2.9	3.0	3.3	1.4	1.5	1.5

<sup>a</sup> and <sup>b</sup> indicate a statistically significant difference between groups based upon post-hoc tests at the  $p < .05$  level

\* indicates a marginally significant difference ( $p < .10$ ) between this group and the other two groups based upon planned contrasts

Table 7

Regression Analysis Used to Test Attribution as a Mediator in the Association Between Intimate Abusiveness and Competency of Coping Responses: Specifically Examining Vignettes Involving Themes of Rejection

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Equation	Variables Tested	Significance	Regression Coefficient
1	Abusiveness and Attribution	$F(1, 55) = 13.9, p < .05$	.450**
2	Attribution and Competency of Coping Responses	$F(1, 55) = 9.35, p < .05$	.380**
3	Abusiveness and Competency of Coping Responses	$F(1, 55) = 7.13, p < .05$	.340**
4	Abusiveness and Competency of Coping Responses <i>with Attribution as the mediator</i>	$F(2, 54) = 5.94, p < .05$	.210 (ns)

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\*\* indicates a statistically significant association at the  $p < .05$  level

ns indicates non-significant association ( $p > .10$ )

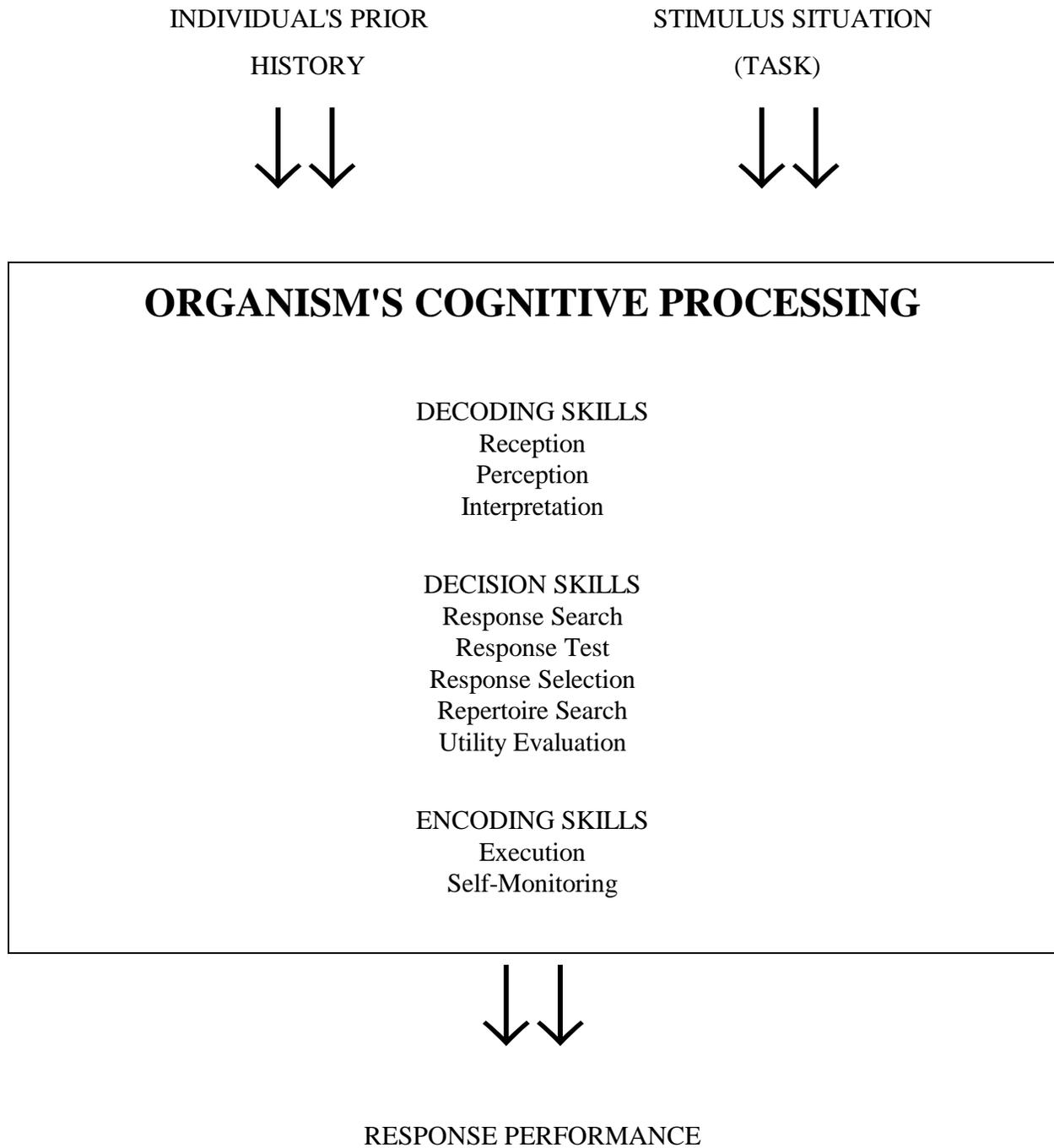


Figure 1: Summary of McFall's (1982) Social-Cognitive Model of Social Skills

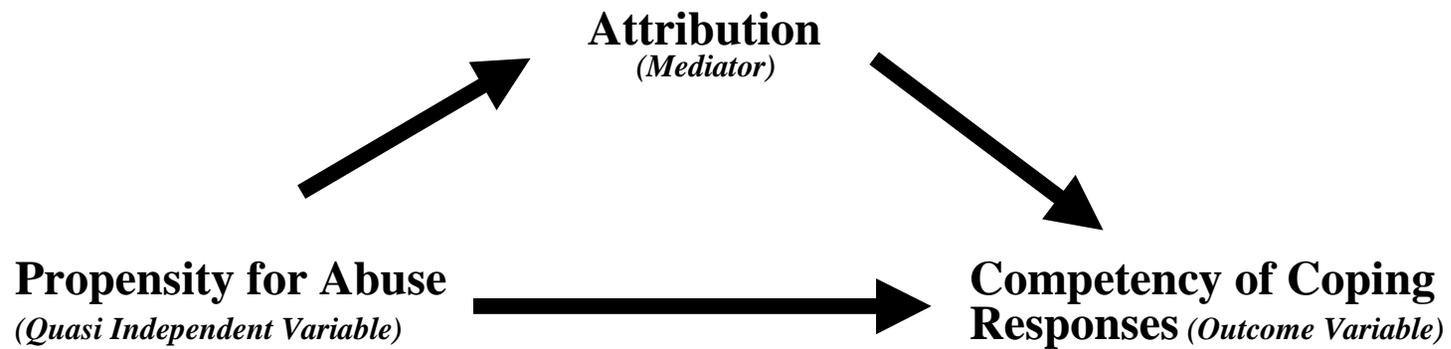


Figure 2: Mediational Model of the Association Between Propensity For Abuse, Partner-Related Attributions, and Competency of Coping Responses

CURRICULUM VITA  
Of  
Michael M. Copenhaver

<b>Education</b>	<b>GPA</b>
Ph.D. Clinical Psychology      Virginia Tech      (in progress)	3.7
M.S. Experimental Psychology      Villanova University      1989	3.6
B.A. Psychology      Clemson University      1987	3.1

### Clinical Experience

*1994- 1997                      Psychological Services Center, Virginia Tech*

Graduate Clinician (1st - 4th year practica). Completed three years of formal practicum training in clinical psychology. Received training in psychological assessment, diagnosis, and treatment of children, adolescents, and young to elderly adults. Treated clients presenting with a variety of disorders including substance abuse disorders, post-traumatic stress disorder, partner relational problems, depression, anger control problems, dissociative identity disorder, schizoaffective disorder, personality disorders, conduct disorder, oppositional defiant disorder, and attention-deficit/ hyperactivity disorder. Supervised first- and second-year graduate clinicians on therapy cases including post-traumatic stress disorder, partner relational problems, and attention-deficit/ hyperactivity disorder.

*Summer 1996                      Veterans Administration Medical Center, Salem, VA*

Psychology Extern Clinician. Completed a paid 500 hour traineeship in clinical psychology with rotations in an inpatient substance abuse treatment program and an outpatient psychotherapy clinic. Assessed and treated veterans presenting with a range of psychological problems including substance abuse disorders, anger control problems, post-traumatic stress disorder, partner relational problems, anxiety disorders, mood disorders, and psychotic disorders. Led a daily cognitive-behavioral group for substance abuse inpatients, co-led a cognitive-behavioral group treatment for sex-offenders, and co-led a support group for longterm outpatients with psychotic disorders.

*Summer 1995                      Psychological Services Center, Virginia Tech*

Graduate Clinician. Selected to serve as graduate clinician during the summer for a variety of adult clients including those with substance abuse disorders, physical abuse of adult, partner relational problems, schizoaffective disorder, dissociative identity disorder. Co-led a cognitive-behavioral treatment group for men with anger control problems.

*1994 - 1995                      University of Virginia*

Trainee. Participated in two forensic psychology workshops at the Institute of Law, Psychiatry, and Public Policy at the University of Virginia including: 1) the Forensic Symposium on the Violent Juvenile Offender and 2) the Sex Offender Evaluation Training. Learned about

assessment and treatment in a forensic setting as well as report writing and expert testimony.

*1992 - 1994 D.C. Hotline, Washington, DC*

Crisis Counselor. Provided non-judgmental listening and referral assistance to callers presenting with issues ranging from psychological disorders (e.g., addictive disorders, partner relational problems, psychotic disorders, affective disorders, agoraphobia, suicidal ideation) to basic needs (e.g., food, shelter, medical services).

## **Teaching Experience**

*Spring 1998 Psychology Department, Virginia Tech*

Graduate Instructor. Taught two Social Psychology courses for undergraduates which required independent course administration (lecturing; leading group activities; grading; advising).

*Fall 1997 Psychology Department, Virginia Tech*

Graduate Instructor. Taught a Research Methods course for undergraduate psychology majors which requires independent course administration (lecturing; leading group activities; grading; advising). Received an "Excellent" performance rating from students.

*Summer 1997 Psychology Department, Virginia Tech*

Graduate Instructor. Taught a Research Methods course for non-psychology majors. This required course development and independent administration (lecturing; leading group activities; grading; advising). Received an "Excellent" performance rating from students.

*1996 - 1997 Psychology Department, Virginia Tech*

Graduate Instructor. Taught a Social Psychology course for non-psychology majors (fall 1996) and a Social Psychology course for psychology majors (spring 1997). This required course development and independent administration (lecturing; leading group activities; grading; advising). Received an "Excellent" performance rating from students.

*Spring 1996 Psychology Department, Virginia Tech*

Graduate Instructor. Taught two Personality Research Lab courses requiring the application of personality theory to assessment and research projects. This required course development and independent administration (lecturing; leading group discussion; grading; advising). Received an "Excellent" performance rating from students.

*Fall 1995 Psychology Department, Virginia Tech*

Graduate Instructor. Taught two Cognitive Psychology Lab courses which required course development and independent course administration (lecturing; leading group activities; grading; advising). Received "Excellent" performance rating from students.

*1994 - 1995*                      *Psychology Department, Virginia Tech*

Graduate Instructor. Taught two sections of Introductory Psychology Lab during the Fall 1994 and Spring 1995 semesters. Received "Above Average" performance evaluation from students.

### **Research Experience**

*1994-1998*      Graduate Researcher. Conducted independent and collaborative research pertaining to a variety of issues in a substance abuse population (e.g., cognitive appraisal, coping, triggers, domestic violence, masculine gender-role stress) over the course of doctoral program at Virginia Tech (see publications). Conducted research involving the development and validation of a measure of the father-child relationship (see publications).

*1992 - 1994*      Research Consultant for Dr. Aaron T. Beck, Center for Cognitive Therapy, University of Pennsylvania. Assisted in rating therapy sessions, research design, data analysis and interpretation, editing and reviewing manuscripts for publication, and presentation of findings at American Psychological Association conferences.

*1989 - 1994*      Research Psychologist for CAE-Link Corporation. Responsible for writing and managing proposals, project management, experimental design, data collection, data analyses and interpretation, and documentation of the data in publishable technical reports. Work on a variety of projects, the majority requiring human factors research.

*1988 - 1989*      Graduate Research Assistant in the Psychology Department, Villanova University. Activities included conducting literature reviews, data analysis and interpretation, and the development of dependent measures for the assessment of human performance.

*1985 - 1987*      Research Assistant in the Psychology Department, Clemson University. Responsible for project planning, experimental design, data collection, statistical analyses, data interpretation, documentation, and presentation of findings at Southeastern Psychological Association convention.

## Publications

### Journals/Books

Copenhaver, M.M., & Eisler, R.M. (1996). Masculine gender role stress: A perspective on men's health. In P.M. Kato (Ed.), Health psychology of special populations: Issues in age, gender, and ethnicity. New York: Plenum.

Copenhaver, M.M. (1996). The Role of Fathers in Their Children's Psychological Development: Implications for the Prevention of Psychopathologies. Journal of Gender, Culture, and Health, 1(3), 221-246.

Copenhaver, M.M., & Lash, S.J. (1997). Cognitive Appraisal, Anger, and Male Intimate Abusiveness in a Substance Abuse Population: Implications for Men's Relationships. (in submission).

Copenhaver, M.M., & Eisler, R.M. (1998). The Development and Validation of the Feelings Toward Father Scale (FTFS): A Tool for Assessing the Father's Role in Children's Psychopathologies. (in submission).

Lash, S.J., & Copenhaver, M.M. (1997). Cognitive Appraisal and Substance Abuse Trigger Situations. (in submission).

### Technical Reports

U.S. Army Institute for the Behavioral and Social Sciences (1994). Crew Configuration Study for the Bradley Fire Support Team Vehicle (BFISTV). (Contract No. MDA903-92-D-0039). Alexandria, VA.

U.S. Army Institute for the Behavioral and Social Sciences (1994). Manpower and Personnel Attributes Study for the Bradley Fire Support Team Vehicle (BFISTV). (Contract No. MDA903-92-D-0039). Alexandria, VA.

U.S. Army Institute for the Behavioral and Social Sciences (1993). Crew Size Study for the Advanced Field Artillery System (AFAS) and Future Armored Resupply Vehicle (FARV). (Contract No. MDA903-92-D-0039). Alexandria, VA.

U.S. Army Institute for the Behavioral and Social Sciences (1993). Bradley Fire Support Team Vehicle (BFISTV) Task List Report. (Contract No. MDA903-92-D-0039). Alexandria, VA.

National Highway Traffic Safety Administration (1992). IVHS Safety Assessment, Lateral/Backing Near Object Detection Systems. Washington, DC.

National Highway Traffic Safety Administration (1992). Measurement of Headlamp Aim and the Electrical and Photometric Performance Characteristics of Rear Lighting Systems of In-

service Privately Owned Standard Automobiles. Washington, DC.

U.S. Army Institute for the Behavioral and Social Sciences (1992). Assessment of the Institutional Fire Control System Trainer (IFCST). (Contract No. MDA903-92-D-0039). Alexandria, VA.

U.S. Army Institute for the Behavioral and Social Sciences (1991). Feasibility Study for Predicting Human Reliability Growth Through Training and Practice. (Contract No. DAHC35-89-D-0027). Alexandria, VA.

National Highway Traffic Safety Administration (1990). The Evaluation of the Photometric and Electrical Performance Characteristics of Rear Lighting Systems on In-Service Truck Trailers. (Contract No. DTNH22-87-D-07101). Washington, DC.

U.S. Army Institute for the Behavioral and Social Sciences (1990). Instrumentation Support Required for the Assessment of the Reliability of Human Task Performance in Automated Systems. (Contract No. DAHC35-89-D-0027). Alexandria, VA.

### **Presentations**

Copenhaver, M.M., & Eisler, R.M. (1995). Development and validation of the attitudes toward Father Scale (ATFS). Poster presented at the Association for the Advancement of Behavior Therapy conference, Washington, DC.

Copenhaver, M.M., and Youngberg, R. (1993). Predictors of Suicide Intent: Hopeless as a Critical Measure. Paper presented at Western Pennsylvania Psychological Association conference, Pittsburgh, PA.

Copenhaver, M.M., Wright, J.E., Youngberg, R., and Beck, A.T. (1992). Predictors of Suicide Intent. Paper presented at American Psychological Association, Washington, DC.

Copenhaver, M.M. (1989). The Effect of Spatial Contrast Sensitivity on Pseudoisochromatic Test Performance. Thesis presented at Villanova University, Villanova, PA.

Copenhaver, M.M., and Dane, F.C. (1987). The Quantification of Reasonable Doubt. Paper presented at the Southeastern Psychological Association, Atlanta, GA.

**Professional Associations**

American Psychological Association Division 12 member since 1994

Association for the Advancement of Behavior Therapy since 1994

Graduate Honor System Council member

Student Representative for Clinical Psychology Faculty Meetings

Guest Reviewer for the Journal of Gender, Culture, and Health