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Abstract

Rape is strikingly prevalent among undergraduate women, and victims show significant variability in their reactions to sexual victimization. The aim of this longitudinal study was to examine two cognitive processing factors that have been theorized to impact a woman's levels of distress after being raped. One cognitive factor, rape conceptualization, broadly refers to the way a woman comes to understand and interpret the event as identified by her attributions of blame and perceptions of severity, wantedness, and consent. Schemata—or global, enduring beliefs about the self and world—represent the other cognitive factor examined in this study. Participants included 189 undergraduate women from a Midwestern public institution, who endorsed a behaviorally-defined rape experience. Cross-sectional results from Study 1 indicated that all aspects of conceptualization were significantly associated with maladaptive schemata. Furthermore, results confirmed a predicted mediation; maladaptive beliefs a woman holds about herself mediate the impact that blaming her enduring traits has on distress. Forty-four rape victims completed a follow-up study, and results indicated that, overall, there were minimal changes in the participants' conceptualizations of a specific rape experience and little difference in the maladaptive beliefs they held. Time 2 results also suggested that there appeared to be two separate groups of victims in this highly distressed sample—those whose symptoms improved over time and whose symptoms worsened over time. The hypothesized relationship between changes in cognitive processing factors and changes in distress was not confirmed in the longitudinal, follow-up study. Implications for cognitive processing theories, individualized treatment for rape victims, and future research directions are discussed.

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Introduction

Women experience high rates of rape and sexual assault, particularly during early adulthood. For women who have been raped, responses to the rape and recovery following the rape varies widely. Current research has not yet been able to fully explain the variability in responses among women who have been sexually victimized. It is important to identify factors that predict recovery after rape, as addressing these factors may help to enhance the effectiveness of interventions for women in distress.

Definitions

Disagreement exists around definitions of rape. A conservative and common approach is to define rape as nonconsensual penile-vaginal intercourse as a result of physical force, threat of physical force, or inability to give consent due to intoxication (e.g., p. 812; Peterson & Muehlenhard, 2007). This definition is consistent with the legal definition of rape in several states (U.S. Department of Justice, 2010). Some definitions of rape include sexual acts that are broader than penile-vaginal intercourse, such as nonconsensual oral and anal sex and vaginal penetration by fingers or other objects. Sexual assault is a related but broader term, which frequently includes nonconsensual acts that are non-penetrative or that are coercive in ways other than through use of force, threat, or incapacitation (e.g., through use of verbal pressure, lies, or manipulations).

Prevalence and Negative Outcomes

Rape is an important social and individual problem because of its prevalence and negative consequences. Although prevalence rates are difficult to determine because of

reporting and measurement challenges, studies indicate that 12 to 18% of women report experiencing a rape or attempted rape in their lifetime (Harned, 2004; Klump, 2006; McMullin & White, 2006). Some data suggest that, compared to women in the general population, college women report higher rates of rape and attempted rape at 20-25%, indicating that this population is at particular risk for these experiences (Fisher, Cullen, & Turner, 2000). Researchers approximate from these statistics that around 25% of women will experience a rape or attempted rape in their lifetimes (McMullin & White, 2006). According to these rates, rape impacts a substantial percentage of women.

Women experience a wide range of negative consequences associated with rape including health problems, sleep difficulty, substance abuse, sexual dysfunction, increased risk for subsequent rapes and sexual assaults, and increased risky sexual behavior (i.e., behavior that places them at risk for sexually transmitted infections; Conoscenti & McNally, 2006; Harned, 2004; Klump, 2006; McMullin & White, 2006; Miller, Markman, & Handley, 2007; Petrak, Doyle, Williams, Buchan, & Forster, 1997). A particularly notable negative consequence is the wide range of symptoms of psychological distress associated with rape. Research has examined rape's unique and deleterious impact on the psychological functioning of women in a number of ways.

Rape has been established as the most common trauma experienced by women who are diagnosed with posttraumatic stress disorder (PTSD; Breslau et al., 1998; Klump, 2006). Other estimates indicate that 21-65% of rape victims go on to develop PTSD (Arata & Burkhart, 1995; Conoscenti & McNally, 2006). Schumm, Briggs-Phillips, and Hobfoll (2006) found that women who have experienced rape only (i.e.,

they experienced no other form of assault or abuse) were six times more likely to have

PTSD-related symptoms than women with no history of abuse or assault.

Research using broad symptom inventories and composite measures of distress

has indicated that women who have been raped experience considerable distress in a

number of domains of psychological functioning. In a study of rape victims who visited

the emergency room following their assault, Frazier (2003) found that participants

reported levels of distress two standard deviations above non-clinical samples as

measured by depression, anxiety, and hostility subscales of the Brief Symptom Inventory,

a standardized assessment of stress (Derogatis, Coons, Goldberger, & Breznitz, 1993).

Similarly, rape victims endorsed greater distress when compared to non-victims,

according to the Psychosomatic Symptom Checklist, which measures physical health,

anxiety, and depression symptoms (Koss, Figueredo, Bell, Tharan, & Tromp, 1996).

Additionally, rape experiences predicted distress in two samples of college women who

completed the Mental Health Index, a self-report measure of depression and anxiety

symptoms (Harned, 2004; McMullin & White, 2006). Finally, suicidal behavior, a

clinically significant indicator of psychological well-being, is more common in rape

victims than in the larger community (Resick & Schnicke, 1996). Resick and Schnicke

stated that 17-19% of rape victims have a history of at least one suicide attempt and 43-

50% report suicidal ideation.

Although the rates of distress are high in women following rape, not all women

who have been raped suffer extreme distress. Examination of variables that help to

determine the degree to which women experience distress will clarify the impact of rape

and the potential effectiveness of interventions for this diverse population. How a

woman conceptualizes her rape experience and the schemata she holds about herself and the world may represent important cognitive predictors of distress.

Rape Conceptualization

There is great diversity in the way that women conceptualize their own rape experiences. Research that has examined the process by which women come to understand what has happened to them and make sense of sexual victimization can be divided into at least four domains—attributions of blame, perception of wantedness, perceptions of consent, and perception of severity.

Attributions of Blame. One component of rape conceptualization is to whom the victim attributes blame for the assault. Women vary in the extent to which they blame themselves, the perpetrator, or other entities for being raped.

Self blame. Estimates indicate that as many as 50 to 74% of women blame themselves, at least partially, for their rape (Frazier, 2003; Janoff-Bulman, 1979; Meyer & Taylor, 1986; Pitts & Schwartz, 1997). In her studies, Janoff-Bulman distinguishes between behavioral and characterological self-blame (Janoff-Bulman, 1992). Behavioral self-blame includes attributions of blame aimed at specific behaviors by the victim prior to, during, or after the assault. A behavioral self-blaming statement might be, "I should not have walked alone"(Janoff-Bulman, 1979, p. 1806). In contrast, characterological self-blame is directed toward the inherent, unchangeable personality characteristics of the victim. An example of this type of blame could be, "I am weak" (p. 1806). Janoff-Bulman's explanation distinguishes these, stating "behavioral self-blame is control related, involves attributions to a modifiable source (one's behavior)… characterological

self-blame is esteem related, involves attributions to a relatively non-modifiable source"
(p. 1798).

There is evidence that behavioral self-blame is more common for women who
have experienced rape than characterological self-blame. In a study of victims at rape
crisis centers, responses indicated that 69% of victims express behavioral self-blame and
19% display some level of characterological self-blame (Janoff-Bulman, 1979). More
recently, Ullman (1997) found that 55% of a community sample of female sexual assault
(coerced sexual contact) victims blamed their behavior compared to 33% who blamed
their character at least somewhat. Furthermore, characterological blamers appear to
attribute a greater degree of blame to themselves than do behavioral blamers (Janoff-
Bulman, 1979).

External blame. Women who have experienced rape often blame a variety of
other entities in addition to or instead of themselves. Responsibility can be ascribed to
the perpetrator, friends, family, God, society, chance, or a number of other sources. Most
common is attributions of blame directed toward the rapist. In studies with both
emergency room victims and college students, women were significantly more likely to
blame their rapist than their own behavior (Abbey, 1987; Bondurant, 2001; Frazier, 1990,
2003; Meyer & Taylor, 1986). Surprisingly, there is a relative paucity of research
examining perpetrator blame when compared to the extensive literature on self-blame
(Frazier, 2003).

Attributions of blame and distress. There have been a number of studies
examining the relationship between blame and levels of distress with inconsistent
findings. These findings can be divided based on to whom the blame is attributed.

Attributions of self blame. Results from several studies confirm what seems intuitive; victims who are high in self-blame endorse greater distress in a variety of domains including symptoms of depression and posttraumatic stress, emotional problems, functional impairment, and substance abuse (Bondurant, 2001; Botta & Pingree, 1997; Frazier, 1990; Meyer & Taylor, 1986; Ullman, Filipas, Townsend, & Starzynski, 2006, 2007; Wyatt, Notgrass, & Newcomb, 1990). However, other research has indicated that self-blame is unrelated to distress (Koss & Figueredo, 2004b; Regehr, Cadell, & Jansen, 1999; Ullman, 1997). Koss and Figueredo's (2004b) longitudinal finding that neither lower initial nor longer-term reductions in self-blame were directly related to reductions in distress suggests that recovery from the negative impact of rape does not depend on attributions of blame. To clarify these differences, some researchers have divided self-blame into characterological and behavioral self-blame. At least two studies have found that characterological self-blame is associated with increased distress (Breitenbecher, 2006; Koss, Figueredo, & Prince, 2002). The results have been more mixed regarding behavioral self-blame; it has been correlated with greater distress (Frazier, 2003; Frazier, Mortensen, & Steward, 2005) and been found to be protective against distress (Breitenbecher, 2006).

Attributions of external blame. It is also not clear if blame directed toward the rapist, society, or other external entities is adaptive or problematic. Some studies have indicated that victims reporting high levels of external blame experience greater distress than victims low in external blame (Frazier, 2003; Frazier et al., 2005; Regehr et al., 1999). In contrast, an earlier study by Frazier (1990) indicated that external blame was

associated with positive adjustment. Finally, Meyer and Taylor (1986) found that

external blame was unrelated to adjustment.

Attempts to explain the inconsistent results relating both external and internal

blame to distress focus on measurement variation in assessing blame and distress. Self-

blame does not appear to be a single construct, but is made up of behavioral and

characterological self-blame, which are differentially related to distress. Sample

characteristics may also account for some of the mixed findings. The majority of the

studies evaluating blame and distress were completed with treatment-seeking samples

from hospitals, rape crisis centers, health centers, and mental health agencies. Women

who are seeking professional services from these places are likely to be experiencing

some degree of distress--likely higher levels of distress than non-treatment-seeking rape

victims. The extent to which they blame themselves or external entities—and the impact

of that blame on distress—could differ from women who are not treatment-seeking. The

two studies that assessed college students, however, found that self-blame was a predictor

of greater distress in female undergraduates who had experienced rape (Bondurant, 2001;

Botta & Pingree, 1997).

Perception of wantedness. A second domain of rape conceptualization is

wantedness, the extent to which women perceive a nonconsensual sexual experience as

wanted. Currently, there is minimal research in the literature related to this question

because of the implicit assumption that rape is both nonconsensual and unwanted. When

using behaviorally specific definitions of sexual assault and rape, many researchers have

defined these as "unwanted" sexual experiences (Conoscenti & McNally, 2006; Harned,

2004). Furthermore, measures intended to assess nonconsensual sex often do so with

questions that ask about unwanted sex (see Peterson & Muehlenhard, 2007 for a review).

Peterson and Muehlenhard (2007) criticized the prevailing model that assumes

that sex is either wanted or unwanted, and if it is wanted, then it is consensual. In reality,

it seems that women have competing interests for consenting or not consenting to sex,

and they experience ambivalence about sex, which contributes to their perceptions of

wantedness (Peterson & Muehlenhard, 2007; VanZile-Tamsen, Testa, & Livingston,

2005). In one study, as many as 80% of college students acknowledged feeling

ambivalent about engaging in sexual activity on at least one occasion (O'Sullivan &

Gaines, 1998). A woman may simultaneously want to avoid sex due to possible negative

consequences (e.g., STDs, unwanted pregnancy, social embarrassment) and want to have

sex due to possible positive consequences (e.g., pleasure, preservation of the

relationship). These competing goals may produce ambivalence about whether the sex is

wanted, irrespective of the consent given.

In their exploration of wantedness in both consensual and nonconsensual sexual

encounters, Peterson and Muehlenhard (2007) defined *to want* as "to desire, wish for, feel

inclined toward, regard it or aspects of it as positively valenced" and *to consent* as "to be

willing or agree to do something" (p.73). Their results provided evidence that there is a

distinction between wantedness and consent, illustrating that both consensual and

nonconsensual sex can be wanted and unwanted. In a sample of female undergraduates,

19% of rape victims rated their nonconsensual sexual experiences as wanted to some

degree, while 50% of women referencing a consensual sexual experience rated it as

unwanted to some degree. Similarly, in other studies, 50 to 55% of women indicated that

they had previously consented to unwanted sex (O'Sullivan & Allgeier, 1998; Sprecher, Hatfield, Cortese, & Potapova, 1994).

   Wantedness and distress.   To the author's knowledge, there has been no research examining the relationship between perceptions of wantedness and distress following a rape. It is possible that greater wantedness could be either adaptive or maladaptive. For example, a woman who perceives the rape as wanted to some degree may have trouble reconciling her feelings of ambivalence, which could be a source of distress. Yet, women who did not want sex at all may be more likely to have experienced more extreme, less ambiguous forms of sexual victimization (e.g. forced rape or injury during the rape), which have been shown to produce greater distress (Campbell, Dworkin, & Cabral, 2009). Further, women who wanted the nonconsensual sex to some degree (even though they did not consent) may feel that they had more control and choice in the matter than women who are clear that the nonconsensual sex was unwanted. Research examining wantedness and distress could clarify the relationship between these two constructs.

   Perceptions of consent.   Conceptualization includes a third component which can be identified as the victim's perception about the degree to which her experience was nonconsensual. By definition, rape is nonconsensual sex, and a woman who endorses a behaviorally-specific measure of rape affirmatively would have to view her experience as somewhat nonconsensual. Still, women may perceive their experiences as more or less nonconsensual or may be uncertain about the nonconsensual nature of their experience. Women often vary in their appraisals of coercion and consent because these concepts are frequently ambiguous or poorly defined.   Consent can be composed of both a feeling and an expression of willingness (Hickman & Muehlenhard, 1999; Peterson & Muehlenhard,

2007). It is important to note that the man cannot be held responsible for knowing the

woman's internal feelings in the absence of behavioral indicators. Nevertheless, internal

feelings of consent may be even more important to a woman's rape conceptualization

than her external expressions of consent.

Research indicates that, in practice, men and women communicate consent in a

variety of different ways, including both directly and indirectly, both verbally and

nonverbally, and sometimes through a lack of response (Beres, 2007; Hickman &

Muehlenhard, 1999). One study specifically examined victim's perceptions of consent

relative to a behaviorally defined rape experience (Peterson & Muehlenhard, 2007). The

majority of women (54%) indicated that the rape was not at all consensual. However, on

a continuous measure which stated "I felt that I consented or agreed to this experience,"

the responses of the remainder of victims ranged across the scale from "not at all true" to

"very much true" (p. 81).

Perceptions of consent and distress. Similar to wantedness, no research has

specifically evaluated how the victim's perception of consent is associated with distress.

By definition, rape is nonconsensual and coercive, which makes this a difficult area to

research. As discussed earlier, however, the victim's perception of the extent to which

she consented may not be consistent with the behavioral indicators of nonconsent.   The

impact of perceived consent on distress, as with wantedness, may be in either direction.

Women who have ambivalent feelings about the extent to which they consented may be

distressed as a result of their perceptions that they allowed the rape to happen. In

contrast, what may have a stronger influence is the fact that clearly nonconsensual events

could be viewed as more extreme and less in the woman's control and thus cause greater

distress. Thus, the victim's perception of consent as an aspect of her conceptualization of a rape experience deserves further examination to determine its link to psychological distress.

Perception of severity. The final domain of rape conceptualization discussed here is the perceived severity of the event. Rape is often rated on a continuum of severity from incapacitated rape to rape through threatened force to forcible rape (Brown, Testa, & Messman-Moore, 2009; Layman, Gidycz, & Lynn, 1996). There can, of course, be individual variability in victims' perceptions of the severity of each type of rape. Perceptions of severity are also based on a victim's perceived threat to her life or the integrity of her person (Ullman et al., 2007). Connected to the threat to life is the amount of force and violence displayed by the perpetrator and the actual and perceived injury to the victim (Kahn, Jackson, Kully, Badger, & Halvorsen, 2003). Furthermore, perceptions of degradation, violation, and betrayal impact the perception of severity and vary among victims (Kahn & Mathie, 2000).

Perceived severity and distress. Perceived severity of the rape seems to be related to distress. Aspects of severity, including perception of threat to one's life, actual receipt of physical injury, and completion of rape (as compared to attempted rape) have been associated with increased distress (Resnick, Kilpatrick, Best, & Kramer, 1992; Ullman & Filipas, 2001; Ullman et al., 2007). Additionally, perceived threat during the rape—made up of longer duration of crime; increased fear and numbing; use of begging, pleading, and crying; and attempts to reason with the perpetrator—was established as a predictor of greater distress (Kaysen, Morris, Rizvi, & Resick, 2005). The direction of the

relationship between severity and distress is not clear, however, and it may be that

victims experiencing greater distress retrospectively appraise the event as more severe.

Measurement issues related to conceptualization. To accurately obtain

information about women's conceptualization of rape, measurement must be valid and

reliable. A contemporary move toward behavioral specificity as well as continuous and

multidimensional measures has refined research assessments of these domains.

Behavioral specificity. Early studies of rape asked women if they had ever been

"raped" and, consequently, results were limited to women who labeled their experience

as rape (Harned, 2004). This approach fails to account for the variability in

conceptualizations of rape because evidence shows that only a minority of women (11-

47%) acknowledge that they have been raped despite the fact that their description of a

nonconsensual sexual experience meets legal and research definitions of rape (Bondurant,

2001; Harned, 2004; Layman et al., 1996; McMullin & White, 2006). In the last twenty

years, researchers have begun to use both behavioral measurements of rape combined

with measures of conceptualization. Questionnaires such as the Sexual Experiences

Survey (Koss et al., 2007; Koss & Gidycz, 1985) behaviorally assess nonconsensual

sexual behaviors without using the term "rape" and then separately assesses

acknowledgement by asking, "Have you ever been raped?" Of course, if participants

answer yes to the question, "Have you ever been raped?" researchers cannot determine

which experience the participant is labeling as rape (i.e., an experience that is endorsed

on the behaviorally specific portion of the SES or an entirely different experience); after

all, it is possible that the researcher and the participant may have different definitions of

"rape." Clements and Ogle (2009) emphasize the importance of tying questions of

conceptualization to specific items on behavioral measure. This approach allows researchers to ensure that individuals are considering the same event when responding to behavioral and conceptual measures of victimization.

Continuous measurement. To further increase validity, some researchers have measured conceptualizations of rape on a continuum. For example, when offered a 7-point likert scale, women varied in their ratings along the continuous scale indicating the degree to which their sexual experiences are wanted (Peterson & Muehlenhard, 2007). Similarly, as described above, when victims were presented with a scale assessing their perception of the degree to which they felt that the rape was consensual, they endorsed responses along a continuum. The implication of these findings is that rape conceptualization may not be an all-or-none phenomenon, and dichotomous measures may not capture degrees of variability or ambivalence.

Multidimensional measurement. Some of the measures of conceptualization have incorporated subscales to represent the separate dimensions of the construction. Janoff-Bulman (1992) originally began examining blame directed toward the self in two parts (behavioral and characterological), and this approach has been applied widely (e.g. Koss et al., 2002). Recently, one study attempted to examine the factor structure of a blame attribution questionnaire to empirically determine categories of blame (Breitenbecher, 2006). Five factors were identified including perpetrator blame, characterological self-blame, situational factors or chance blame, behavioral self-blame, and societal blame.

Summary. Research suggests that women who have experienced rape may have idiosyncratic ways of making sense of what has occurred as reflected in studies

examining attributions of blame, and perceived wantedness, consent, coercion, and severity. It is also clear that how a woman conceptualizes the rape may relate to her subsequent level of distress. These conceptualizations make up one domain of cognitive mediators of recovery from rape.

Schemata

The second set of cognitions which impact the development of distress are the schemata that women possess before and after the rape. The term *schemata* is drawn from the social cognition literature, which defines schema as "a cognitive structure that represents knowledge about a concept or type of stimulus, including its attributes and the relations among those attributes…[a schema] shapes what is perceived and remembered" (Bartlett, 1932; Fiske & Taylor, 1991, p. 98-99). Unlike a victim's conceptualization of her rape, which is contained to that specific event, a schema is a global, enduring way of thinking about the self, others, and the world.

There is evidence that rape victims frequently report maladaptive schemata. Reviews indicate that women who have been raped report perceived losses of personal control and power, perceive themselves as vulnerable to harm, and develop problematic beliefs related to trust, intimacy, esteem, and safety (Koss et al., 2002; Resick & Schnicke, 1996). In her validation of the Worlds Assumptions Scale, Janoff-Bulman (1989) identified three common assumptions reported by rape victims, including a lost sense of benevolence of the impersonal world, reduced feeling of worthiness of the self, and decreased meaningfulness of the world as expressed by a belief that the world is uncontrollable and unjust.

Comparing forcible rape, incapacitated rape, and verbally coerced sexual assault victims, Brown (2009) found that the forcible and incapacitated rape victims were more likely to endorse hopeless thoughts, feelings of helplessness, low self-worth, and a view of the world as dangerous than verbally coerced sexual assault victims. This difference was accounted for, in part, by the number of assaults reported, so the results must be interpreted with caution. To remove the confound of number of assaults, it is important to compare rape victims and non-victims, where the differences may be even more profound. Indeed, Segal (2009) assessed sexual assault victims (including rape victims) and found that, compared to non-victims, women who had been sexually coerced or raped were less likely to believe that life is worthwhile or valuable and more likely to assume that the world is unjust and immoral. These studies illustrate some examples of negative schemata associated with the occurrence of rape

Schemata and distress. Much of the literature supporting the role of schemata in predicting post-rape distress has been theoretical or incorporated into treatment outcome research. However, it is situated within the larger cognitive model literature, where the connection between distorted or dysfunctional thinking and behavioral or emotional problems has been well-established (e.g. Beck, 1995). Some studies have empirically tested this relationship in samples of female rape victims. Koss, Figueredo, and Prince (2002) found that symptoms of emotional and somatic distress as well as social maladjustment were directly predicted by maladaptive beliefs measured by an 80-item questionnaire assessing trauma-related beliefs. Results from another study suggest that a stronger belief in personal control over recovery and a stronger belief that future assaults are unlikely are associated with decreased distress (Frazier, 2003).

The Relationship Between Conceptualization and Schemata

How a woman conceptualizes a rape and the schemata she holds about herself, others, and the world are likely related to each other as well. This connection can be illustrated using the concepts of assimilation and accommodation, two simultaneous agents of cognitive readjustment. The terms *assimilation* and *accommodation* were originally proposed by Piaget to describe the way that children adapt to physical and mental stimuli, and they have been applied to explain how individuals construct meaning throughout their lifespan (Crain, 2000). Assimilation could be considered the top-down processing of information and accommodation is the bottom-up integration of data (Fiske & Taylor, 1991). These concepts have also been applied to cognitive processing of traumatic experiences including rape (Janoff-Bulman, 1992; Resick & Schnicke, 1996).

Assimilation. Schemata inform the way that a woman conceptualizes her experience of rape (Koss & Burkhart, 1989). This process of construing meaning involves the first of two simultaneous agents of cognitive readjustment called assimilation (Crain, 2000; Janoff-Bulman, 1992; Resick & Schnicke, 1996). Assimilation happens when a woman shapes the conceptualization of her rape to be consistent with her schemata. Schemata can include a wide range of beliefs pertaining to issues such as safety, trust, predictability and control, power or self-efficacy, esteem, intimacy, and lovability, to name a few (Koss et al., 2002; Resick & Schnicke, 1996). There is evidence that these general ideas mold the appraisals a woman makes about being raped. For example, women who subscribe to a just-world belief (Lerner, 1980) that people receive what they deserve are more likely to blame themselves for being raped (Janoff-Bulman, 1992; Koss & Burkhart, 1989). Similarly, the belief that the

world is controllable and predictable is associated with behavioral self-blame (Janoff-Bulman, 1992).

      Accommodation. The victim's rape conceptualization can also modify schemata temporarily or permanently. Rape often contradicts beliefs that have been developed and confirmed over many years. Thus the victim must adjust her assumptions about herself and the world in a way that is consistent with this new personal data (Janoff-Bulman, 1989). Additionally, rape can confirm and strengthen long-held maladaptive beliefs about the self, others, and the world. This evolution is identified by the second agent of cognitive readjustment, accommodation (Crain, 2000; Janoff-Bulman, 1992; Resick & Schnicke, 1996). Accommodation occurs when the victim changes her schema to be consistent with her conceptualization of the rape. Sometimes accommodation is adaptive and results in balanced, realistic beliefs that involve integrating personal experiences in a meaningful way. However, when the resulting schema is extreme or exaggerated, it becomes maladaptive and is labeled over-accommodation (Resick & Schnicke, 1996).

      Specific components of conceptualization have been examined in their relationship to schemata. Early on, Janoff-Bulman's (1979) survey of rape crisis centers indicated that behavioral self-blame, a common response in rape victims, promotes a positive schema that the future is controllable. Intuitively, this makes sense; if a woman blames her own behavior for an assault (e.g., I shouldn't have gone to the bar or worn that dress), then the assumption follows that she can prevent future assaults by not behaving in the same way. In a more recent study, this finding was confirmed by results that showed that self-blame promotes more adaptive control schemata than external blame (Ullman, 1997). In contrast, Frazier (2003) found an inverse relationship between

attributions of blame (both self and rapist blame) and perceptions of control and

predictability. It is possible that, initially, self-blame helps a woman cope with her rape

experience by preserving schemata about the safety and controllability of the world but

becomes less relevant over time as new evidence is gathered to support these adaptive

schemata. In other words, initially rape conceptualizations related to self-blame may help

to promote adaptive schemata, but over time, the adaptive schemata may not depend as

much on self-blame and individuals are able to amend their rape conceptualizations to

include less self-blame. There is a lack of research relating the other aspects of

conceptualization (wantedness, perceived coercion and consent, perceived severity) to

schemata.

Combined Effect of Conceptualization and Schemata on Distress

In a large-scale program of research, Koss and her colleagues developed

statistically-derived, cross-sectional and longitudinal models of the cognitive mediation

of negative outcomes associated with rape (Koss & Figueredo, 2004a, 2004b; Koss et al.,

1996; Koss et al., 2002). Included within the model were individual characteristics, rape

characteristics, social cognitions, memory characteristics, and health outcomes. Rape

characteristics included an objective and subjective measure of severity. Attributions of

blame and maladaptive beliefs were combined under the social cognition umbrella.

Health outcomes were made up of psychopathology, posttraumatic stress symptoms,

social maladjustment, and physical symptoms. The individual and memory characteristics

are not relevant to the current study, but each of the other domains represent the factors

that have been discussed here including schemata (maladaptive beliefs), rape

conceptualization (perceptions of severity and attributions of blame), and distress (health

outcomes). This program of research was based on emotional processing theories of

trauma, which hypothesize that individuals attempt to make sense of emotionally-salient

events based on their preexisting beliefs. The resulting maladaptive beliefs then mediate

other negative outcomes such as distress.

The studies conducted by Koss and colleagues recruited female participants using

a variety of methods including referrals and mailings to hospitals and rape crisis centers,

mailings to hospital and university employees, and a sample of college students. To be

included, participants were required to have experienced a rape within three months prior

to beginning the study. Interviews were conducted and self-report questionnaires were

administered to each participant for the cross-sectional and longitudinal studies. The

majority of participants were White, educated women, which may limit generalizability

of the findings.

Using structural equation modeling and this set of data, Koss, Figueredo, and

Prince (2002) found that maladaptive beliefs and self-blame mediated the relationship

between rape characteristics and health outcomes. Their final model, which included this

mediation, explained 56% of the variance in global distress, including 54% of the

variance in posttraumatic stress symptoms and 91% of the variance in other

psychological symptoms (e.g. depression, anxiety, psychosis). An examination of their

model reveals that incapacitation predicted greater self-blame while increased assault

severity predicted greater external blame. Characterological self-blame predicted

maladaptive beliefs, which, in turn, predicted global distress. Self-blame independently

predicted global distress as well. In their discussion of these findings, Koss et al.

conjectured that behavioral self-blame allows victims to maintain the adaptive belief that

they are able to control what happens to them, while characterological self-blame produces the maladaptive belief that the future is unpredictable and uncontrollable.

Summary. Rape conceptualizations and schemata mutually influence each other through the cognitive processes of assimilation and accommodation. In addition to their independent impacts on post-assault distress, rape conceptualizations and schemata may work together to partially control recovery. Specifically, Koss and colleagues' data suggest that particular rape conceptualizations may lead to negative schemata, which in turn, lead to increased distress.

Changes Over Time

Reactions to rape vary with the passage of time since the rape. Understanding the nature of these changes is integral to an examination of the cognitive mediation of recovery.

Recency of the rape. Levels of distress change as a function of time. It is common for women to experience high levels of distress immediately following a sexual assault. For many women, distress naturally decreases over time. Indeed, Rothbaum, Foa, Riggs, and Murdock (1992) found that 94% of women who had been raped met symptom criteria for PTSD within one month following the event, whereas only 47% of these women still met symptom criteria three months post-rape. Resick's (1993) review of longitudinal research examining patterns of recovery suggests that women who experience less chronic psychological symptoms following rape show improvements between two to eighteen months post-assault.

Furthermore, conceptualizations of the event and schemata may change over time as well. For example, women, on average, endorsed less behavioral self-blame and rapist

blame over a one year period in one study (Frazier, 2003). Frazier also reported that the strength of women's beliefs about personal control over recovery increased and the perceived probability of future assaults decreased over time.

       Cognitive mediation of changes in distress over time. As demonstrated above, the way a woman conceptualizes a rape and her schemata may mutually influence each other and impact distress. Thus, it is expected that changes in either of these domains over time could drive recovery or exacerbate of distress. To the author's knowledge, two studies have examined these relationships longitudinally. Frazier (2003) collected data at four time points post-assault (2 weeks, 2 months, 6 months, and 12 months) from women visiting the emergency room following a rape. Results showed that reductions in self-blame and rapist blame along with increased perceived control over recovery were associated with decreases in distress over a one year period.

       The longitudinal replication of Koss's work described previously (Koss & Figueredo, 2004a, 2004b) confirmed their baseline results, which were based on cross-sectional data that was collected within three months following the index rape. Follow-up time points occurred at six, twelve, and eighteen or twenty-four months after the first interview. Change in maladaptive beliefs significantly predicted change in psychological distress, and changes in attributions of blame were unrelated to changes in both maladaptive beliefs and psychological distress. However, initial characterological blame predicted initial maladaptive beliefs. The impact of blame at time one on initial distress was indirect and mediated by maladaptive beliefs. Another interesting finding from the longitudinal analyses is that psychological distress at Time 1 predicted decreased behavioral self-blame and increased external blame over time. This evidence supports

the argument that the relationships among problematic conceptualization, negative schemata, and distress are multidirectional and cyclical, each exacerbating dysfunction in the others over time. Additionally, the results may emphasize the important role of initial rape conceptualization in the formation of maladaptive schemata and the continued influence of these schemata on distress over time.

The Present Research

As reviewed here, there is evidence that post-assault distress may be influenced, at least in part, by the cognitive predictors of rape conceptualizations and maladaptive schemata. Additionally, conceptualization and schemata may impact each other through the simultaneous cognitive agents of assimilation and accommodation. The present research sought to examine more comprehensively the mediating role of these cognitive components on distress following rape. Additionally, the study aimed to confirm these relationships by examining the way that changes in conceptualization and schemata affect changes in levels of distress over time.

Theoretically, pre-rape schemata influence rape conceptualizations (i.e., through assimilation) *and* rape conceptualizations influence post-rape schemata (i.e., through accommodation); however, this study focused specifically on the latter part of this relationship by examining how rape conceptualizations influence post-rape schemata in a sample of women who had a history of rape (see Figure 1). Consistent with the work of Koss and colleagues (Koss & Figueredo, 2004a, 2004b; Koss et al., 1996; Koss et al., 2002), it was expected that post-rape schemata would mediate the relationship between the many components of rape conceptualization and distress.

Study 1: Cross-sectional, retrospective data. The aims of the first phase of this research were (1) to explore whether rape conceptualization and post-rape schemata were associated with distress, (2) to assess the extent to which rape conceptualization and post-rape schemata were related to each other, and (3) to evaluate whether schemata mediated the relationship between rape conceptualization and distress using retrospective self-report data from women who had experienced a rape (i.e, nonconsensual oral, anal, or vaginal sex obtained through intoxication, threats, or force).

Previous research provided preliminary evidence that conceptualization and schemata independently predict levels of distress. However, research on conceptualization has focused almost exclusively on self-blame, and, to a lesser extent, perceived severity. Additionally, results have been mixed regarding which conceptualizations are most adaptive (e.g., some studies show that self-blame is maladaptive and other studies suggest that it can be associated with reduced distress). First, this study attempted to clarify previous research on the relationship between rape conceptualization and distress by introducing perceptions of wantedness and consent as important predictors of distress and by using measures of conceptualization that were behaviorally specific, continuous, and multidimensional. Second, this study sought to provide further validation of the impact of maladaptive schemata on distress, a relationship which has been widely suggested theoretically, but which has received less empirical examination.

Third, this study attempted to evaluate the extent to which rape conceptualizations and schemata impact each other. Again, much of the previous literature has supported this connection theoretically (i.e., through discussions of accommodation and

assimilation), but the empirical research has been limited to examining

conceptualizations of blame and severity and their relationship to maladaptive schemata.

It was hoped that a more comprehensive evaluation of these relationships would

potentially explain more of the variance in women's reactions to rape. Additionally, it

was hypothesized that certain aspects of conceptualization may be differentially related to

maladaptive beliefs based on content.

Finally, this study aimed to validate the cognitive mediation of distress model

proposed and tested by Koss (2002). The first three goals described here satisfy the

initial conditions for mediation. Koss and colleagues' tests of their cognitive mediation

model were limited in that they considered only self-blame and severity as indicators of

conceptualization. This study enhanced this cognitive mediation model by using a

broader understanding of rape conceptualization. This study proposed mediations

consistent with Koss's findings: that maladaptive beliefs would mediate the relationship

between specific aspects of rape conceptualization and distress. Specifically:

Hypothesis 1.01. Higher attributions of self-blame would predict distress

indirectly through maladaptive schemata related to the self.

Hypothesis 1.02. Higher attributions of external blame would predict distress

indirectly through maladaptive schemata related to the world.

Hypothesis 1.03. Higher perceived rape severity would predict distress indirectly

through maladaptive schemata about the self and the world.

Hypothesis 1.04. Lower perceived wantedness would predict distress indirectly

through maladaptive schemata related to the world.

Hypothesis 1.05. Lower perceived consent would predict distress indirectly through maladaptive schemata related to the world.

Study 2: Longitudinal data. The second phase of this research examined changes in conceptualizations, schemata, and distress which could occur as a function of time. Furthermore, the study focused on the interrelationships of these changes among the domains to evaluate how certain conceptualizations and schemata drove the recovery from or exacerbation of distress. There have been two studies that have looked longitudinally at cognitive mediators of distress; one study (Frazier, 2003) included only blame and control while the other (Koss & Figueredo, 2004a, 2004b) assessed only blame, severity, and maladaptive beliefs. The present research extended the findings of these two studies by encompassing more aspects of rape conceptualization. This study proposed that changes in maladaptive schemata would mediate the relationship between changes in aspects of conceptualization and changes in distress. Because sample size limited the ability to test multiple mediation hypotheses in this set of pilot data, this study prioritized aspects of conceptualization which were most novel—perceptions of wantedness and consent. Specific longitudinal hypotheses included:

Hypothesis 2.01. Over time, there would be reductions in perceived wantedness and consent and in all attributions of blame (behavioral and characterological self blame; perpetrator, situational, and societal external blame).

Hypothesis 2.02. Over time, there would be reductions in levels of distress.

Hypothesis 2.03. Over time, there would be reductions in maladaptive schemata related to the self and the world.

Hypothesis 2.04. Reductions in perceived wantedness would predict reductions in distress indirectly through reductions in maladaptive schemata related to the self.

Hypothesis 2.05. Reductions in perceived consent would predict reductions in distress indirectly through reductions in maladaptive schemata related to the self.

Study 1 and 2 Methods

Procedure

At the start of the Fall semester, a list of email addresses for all undergraduate students at a mid-Western urban state university was obtained from the registrar, and a maximum of two emails were sent to each address inviting all women over the age of 18 to complete an online questionnaire about their thoughts and feelings regarding sexual experiences they may have had in the past. The survey was accessed through a link provided in the email. Because the registrar's release of information on gender is prohibited by FERPA, the email was sent to all undergraduate students and specified that only women were invited to participate. The questionnaire took approximately 15-30 minutes to complete. All women completed measures of sexual victimization history and distress; only women who identified a past experience of rape (nonconsensual oral, vaginal, or anal sex obtained through intoxication, threat, or force) or sexual assault (nonconsensual sex play obtained through intoxication, threat, or force, or any sexual act obtained through verbal coercion) completed the conceptualization and schemata measures. The online survey (administered through surveymonkey.com) was programmed to skip items as appropriate based on participant's responses. The initial invitation email also notified participants that, by participating in Study 1, they may be

chosen to participate in a follow-up study at the end of the academic year for additional compensation.

As compensation for completing Study 1, participants had the option to be entered in a raffle to win one of four $50 online gift certificates. The gift certificates were online in order to limit the amount of identifying information that was required from participants (i.e., only their email address was collected). Email addresses collected for the purpose of the raffle were stored separately from participants' survey data; there was no way to connect participants' responses to the information provided for the raffle. At the completion of the Study 1 online questionnaire, all participants were told that they may be eligible to participate in Study 2. They were invited to volunteer for Study 2 by providing an email address where they would be able to be reached in April of the following year. They were told that, by providing an email address, they were forgoing anonymity. They were not told the selection criteria for Study 2.

All participants were provided a list of various resources in the community to assist them with any distress that might arise as a consequence of their participation. The list was purposely inclusive of a wide range of services and not limited to trauma-related or rape crisis services in an attempt to not indirectly impact the women's conceptualization of their nonconsensual sex.

Women who endorsed a rape experience in the first survey were invited to participate in the second phase of the study. Again, for the purposes of this selection, rape was defined as nonconsensual oral, anal, or vaginal sex by intoxication, threat, or force. Women who reported a past sexual assault (sex play, attempted oral or anal sex, or attempted vaginal penetration as a result of verbal coercion, incapacitation, threat, or

force; or completed sex play, oral, anal or vaginal sex as a result of verbal coercion) were also invited to complete Study 2 but were not included in the analyses for Study 2. A random sample of 40 non-victimized participants were also invited to complete the Study 2 questionnaire; this was to protect the participants' confidentiality of responses to the first questionnaire (i.e., so no one would know that they had experienced sexual assault solely based on their participation in the second part of the study); their data were not included in the analyses. Approximately half-way through the academic year, the women selected for the second phase of the study received one email thanking them for their initial participation in Study 1 and reminding them that they would be asked to complete another online questionnaire the following April. This communication also requested any updates to the participants' email contact information to ensure retention of participants who left the university after the Fall semester. At the end of the Spring semester, an email was sent to the women selected based on sexual victimization history and the 40 non-victimized participants inviting them to complete a second online questionnaire along with a link to the survey.

To ensure that participants answered conceptualization measures at Time Two (T2) referencing the same event from the Time One (T1) assessment, they were asked to recall the event that they indicated at T1. The questionnaires requested the participants to identify the type of event, provide a brief qualitative description of the event, and answer other objective items about characteristics of the event at T1 and T2.

The T1 and T2 surveys were identical, except for the victimization measures. For T2, a sexual victimization measure was presented at the end of the survey to measure victimization only since the T1 assessment. No more than two reminder emails were sent

encouraging participants to complete the T2 survey. Compensation for completing the

second online questionnaire was a $10.00 online gift card. Women were again provided

with a list of a broad range of community resources at the conclusion of the

questionnaire.

Protection against risks. There are some risks associated with the fact that email

and online forms can never provide complete protection against loss of confidentiality.

However, the risk for this study was quite small, and participants were informed of the

risk prior to their participation. To help protect against this risk, identifying information

was kept for a very short time. Participants had the option to keep their T1 responses

anonymous by not entering their email addresses (although this precluded them from

completing the T2 questionnaire). Email addresses collected for the raffle were entered

in a separate survey which could not be linked to the responses on the questionnaire.

Participants were notified about the options for anonymity both in the consent form and

immediately prior to the request for their email address. All contact information and

other personal identifiers were destroyed once data collection was complete.

Participants were asked sensitive information about their victimization history and

symptoms of psychological distress. Thinking about and responding to questions about

these topics may have been mildly upsetting or embarrassing for participants. However,

participants were informed about the content of each questionnaire in advance, and they

were told that they had the option not to answer any question that made them

uncomfortable.

All personal information of individuals who participate in this project was kept

confidential and was used only for research purposes. Identifying information was stored

securely with an electronic password. All identifying information was destroyed once data collection had been completed.

The questionnaires were created through SurveyMonkey (www.surveymonkey.com) and were secure and confidential. Any subsequent reporting of results from these studies will be done in such a way that no individual participant can be identified.

The questionnaires were developed to cautiously avoid asking for information about specific criminal behaviors that might require filing a police report; for example, there were no items inquiring about on-going child or elder abuse or neglect or about intent to harm another person in the future. However, participants were warned in the consent form that the law mandated reporting of such information in case it was spontaneously revealed by a participant, and it was not.

All participants were invited to contact the investigator to privately discuss their reactions or questions during or after their research participation. The principal investigator for this project had a M.A. in Clinical Psychology and was mentored/supervised by a Licensed Psychologist with a Ph.D. in Clinical Psychology; thus, they were well qualified to handle participants' reactions and/or concerns. No participants contacted the investigators to discuss stressful reactions to the study. The informed consent included a phone number for a local 24-hour crisis hotline. Additionally, the PI provided mental health referral information to participants. Written feedback on the questionnaire was invited from the subjects about their experience as participants. These responses did not reveal evidence of the survey causing serious

distress among the participants and no adverse reactions were observed by the

investigator.

Participants

The initial invitation email was sent to all enrolled students ($N = 9,126$) including

both men and women. Based on university enrollment reports for the time period,

approximately 5,338 women were included in this invitation (Silman, 2011). Out of the

838 (15.7% of those invited) women who consented to complete the survey, 314 (37.5%)

endorsed a rape experience (oral, anal, or vaginal sex obtained through incapacitation,

force, or threats) occurring since age 14, meaning their data was eligible for inclusion in

the analyses reported here. Of those eligible women, 125 participants failed to respond to

a minimum of 85% of items on relevant measures, leaving 189 women included in the

analyses for the hypotheses.

The 189 participants ranged in age from 18 to 64 with a mean age of 26.5 ($SD =$

8.1). The majority of the sample was White (83.6%), and the remaining women

identified as African American or Black (13.2%), Asian or Asian American (1.1%),

American Indian, Native American, or Alaskan Native (1.1%), Native Hawaiian or

Pacific Islander (.5%), Hispanic or Latino (2.1%), and Other (4.2%). Eight participants

(4.2%) endorsed more than one race indicating that they are biracial or multiracial. The

sample included students in their first year of college (7.9%), second year (7.9%), third

year (32.3%), fourth year (24.3%), fifth year and beyond (24.9%), non-degree seeking

students (2.1%), and unreported (.5%). Socioeconomic status as measured by household

income varied dramatically; 23.8% reported an income of less than $15,000, 28%

reported an income between $15,000 to $29,000, 27.5% reported an income of $30,000 to

$59,000, 13.2% reported an income of $60,000 to $99,000, and 7.4% reported an income of greater than $100,000. The majority of participants reported that they were in an exclusive, monogamous relationship (64.6%), and smaller proportions of participants indicated that they were in non-exclusive relationship where one or both partners has sex with other people without the other partner's knowledge (5.3%), an open relationship (2.1%), dating but not in a relationship (12.7%), and not dating (14.8%). One person did not indicate her relationship status.

Measures (see Appendices 1-10)

     Demographics. Basic demographic information was obtained using the Demographic Questionnaire (DQ). The 15-item questionnaire included questions about sex, age, education, religion, socioeconomic status, ethnicity, and relationship status.

     Sexual victimization. Sexual assault history was assessed using the short form of the Revised Sexual Experiences Survey (R-SES, Koss et al., 2007). This is a recent revision of the SES (Koss & Gidycz, 1985) which is a widely used measure of adult sexual victimization. The R-SES uses behaviorally specific items that identify nonconsensual sexual acts. It includes seven items, with five sub-questions per item, assessing completed and attempted sex play, oral, anal, and vaginal penetration by verbal coercion, incapacitation, threat, or force. The format of the scale was modified to assess for number of times the woman had been victimized since age fourteen and number of times in the last two years (rather than twelve months as in the published version). The items assessing acts that are consistent with the study's definition of rape were presented first (oral, anal, and vaginal penetration by incapacitation, threat, or force). Then the participants were asked about their most recent experience (recognizing that many

women had experienced multiple victimizations), including when the most recent event happened and the type of event that occurred most recently. Additionally, the participant were asked to identify the type of relationship she had with the perpetrator from a set of options used by Littleton, Axsom & Grills-Taquechel (2009), which included romantic (dating casually, steady date, romantic partner) and nonromantic (stranger, just met, acquaintance, friend, relative) options. Conceptualization and schemata measures followed this section referencing the most recent victimization experience they chose. After the completion of these measures, the remaining questions from the R-SES (those measuring sexual assault) were presented. Although the reliability and validity for the R-SES has yet to be examined, internal consistency and test-retest reliability for the prior forms showed Cronbach's alpha values consistently above .70 (Cecil & Matson, 2006). The previous version of the SES demonstrated adequate convergent validity with other measures of sexual victimization (Cecil & Matson, 2006).

At the T2 assessment, participants completed the R-SES at the end of the survey; this version of the R-SES only measured new victimization experiences for the prior nine months since the T1 assessment.

Rape conceptualization.

Attributions of blame. The Sexual Victimization Attributions Measure (SVAM, Breitenbecher, 2006) was used to assess the internal and external attributions of blame. The SVAM contains 55 statements that measure five attributions of blame including self-blame (characterological self-blame, behavioral self-blame) and external blame (perpetrator blame, situational factors or chance blame, and societal blame). Responses are rated on a 5-point likert scale from 1 (*not at all true*) to 5 (*completely true*).

Participants were asked to indicate the extent to which they perceived each item explains why the most recent rape experience occurred. Examples of items include "He is a jerk," "I'm weak," "I flirted with and/or teased him," and "There is too much violence on TV." In the past, the SVAM has demonstrated good internal consistency reliability for each of the factors ranging from .71 to .93. For the T1 study, the characterological self-blame and perpetrator blame factors demonstrated good internal consistency reliability ($\alpha = .88$ and .89, respectively). Internal consistency reliability was adequate for the other factors including behavioral self-blame ($\alpha = .73$), situation blame ($\alpha = .72$), and society ($\alpha = .71$). T2 internal consistency reliability for the SVAM factors was comparable to T1 (.77 to .91) except reliability for society blame, which was lower at T2 ($\alpha = .59$).

     Perceived wantedness. Perceived wantedness of the nonconsensual sexual experiences was assessed using the Wanting Questionnaire, a section of the Sexual Experiences Questionnaire (SEQ, Peterson & Muehlenhard, 2007). The Wanting Questionnaire is composed of subscales of 84 reasons for wanting and not wanting sex that are rated from -3 (*a strong reason for NOT wanting to have sex*) to 3 (*a strong reason for wanting to have sex*). Examples include "I was a virgin," "I thought I might get into trouble (e.g. with my parents, my boss, the police), "I expected the sexual intercourse to be painful or physically uncomfortable." In order to limit the length of the survey, 44 reasons were chosen that were most relevant to the sample and to the other domains being measured in this study. Additionally, the questionnaire provides global indices of wantedness based on three questions rated from -3 (*strongly unwanted*) to 3 (*strongly wanted*). The three questions are: "Overall, how much did you want or not want to engage in the sexual intercourse itself (not considering the consequences)?,"

"Overall, how much did you want or not want the possible consequences of engaging in the sexual intercourse?," and "Overall, how much did you want or not want to engage in the sexual intercourse in this situation (taking into account the intercourse itself, the possible consequences of engaging in the intercourse, and the possible consequences of not engaging in the intercourse)?" This latter question was used as a single-item measure of wantedness in the analyses reported here. Limited reliability and validity information was available for the recently-developed SEQ, though there is some evidence of internal consistency for the subscales of reasons for wanting/not wanting sex ($\alpha = .71$ to $.96$). Additionally, there was preliminary evidence of discriminate validity in that wantedness was related to but distinct from consent (Peterson & Muehlenhard, 2007).

Perceived consent. Participants' perceptions of the extent to which the rape was nonconsensual were assessed using a series of consent items from the Sexual Experiences Questionnaire (SEQ, Peterson & Muehlenhard, 2007). These questions assessed both felt consent and expressed consent. Agreement with the items is rated on a 7-point scale. The items are: "I felt that I consented or agreed to this experience," "I communicated to the other person that I consented or agreed to this experience," and "I communicated to the other person that I did not consent or agree to this experience." Agreement with the items is rated on a 7-point scale. For the analyses in this study, overall consent was measured by the single item, "I felt that I consented or agreed to this experience".

Perceived severity. The perceived severity questionnaire was a combination of items developed for this study based on previous research examining the victim's perceptions of nonconsensual sexual experiences, which has included items related to harm, emotional and behavioral reactions, and coercion (Kahn & Mathie, 2000; Kaysen

et al., 2005; Littleton et al., 2009). Items were rated from 1 (*not at all)* to 5 (*a great deal*). They included questions about the extent to which the incident was serious or severe, extent of perceived force, the extent of perceived threat to life, and the extent of perceived physical injury, and the extent of a variety of emotional responses during the event such as fear, horror, helplessness, anger, degradation, and lack of control. Internal consistency reliability for perceived severity for this study was good at T1 ($\alpha = .95$) and T2 ($\alpha = .95$).

Schemata. Maladaptive schemata were assessed using the Posttraumatic Cognitions Inventory (PTCI, Foa, Ehlers, Clark, Tolin, & Orsillo, 1999). The 36-item PTCI is used widely in posttraumatic stress research and contains three subscales including negative cognitions about self, negative cognitions about the world, and self-blame. The self-blame subscale was not used for this study, as self-blame was measured as part of rape conceptualization as described above. Participants were asked to rate from 1 (*totally disagree*) to 7 (*totally agree*) how much they agree or disagree with each statement. Examples of items are "I have no future," "I am inadequate," and "The world is a dangerous place." Internal consistency for the PTCI subscales has been high ($\alpha = .86$-$.97$) in past studies, and the PTCI has demonstrated good test-retest reliability, discriminate validity, and convergent validity (Foa et al., 1999). Similarly, internal consistency reliability for the PTCI for this study was good at T1 (maladaptive self schemata, $\alpha = .94$ and maladaptive world schemata, $\alpha = .91$) and T2 (maladaptive self schemata, $\alpha = .96$ and maladaptive world schemata, $\alpha = .92$).

Distress. Global distress was measured by the Trauma Symptom Checklist-40 (TSC, Briere, 1996). Despite the title of this instrument, the measure assesses broad

symptoms related to anxiety, posttraumatic stress, depression, sexual problems, and sleep disturbance. Participants were asked to rate how often (0 = *Never* to 3 = *Often*) they had experienced each symptom in the past two months. Items include symptoms such as headaches, nightmares, sadness, memory problems, low sex drive, and loneliness. In previous studies, the subscales have demonstrated adequate internal consistency reliability ranging from .66 to .77; reliability for the total measure has been high .89 to .91. For this study, internal consistency reliability for total distress was also excellent at T1 (α = .92) and T2 (α = .96).

Posttraumatic growth. In order to decrease the likelihood that participants who describe a rape experience would finish the questionnaire distressed, the survey ended with the Posstraumatic Growth Inventory- Short Form (PTGI-SF; Cann et al., 2010), a measure of positive growth following traumatic experiences. This 10-item scale was adapted from the original Posstraumatic Growth Inventory and assesses positive changes that are associated with traumatic experiences in five domains including new possibilities, relating to others, personal strength, spiritual change, and appreciation of life. Items such as "I have a greater appreciation for the value of my own life," "I have a stronger religious faith," and "I know better that I can handle difficulties" are rated from 0 (*I did not experience this change as a result of the event*) to 5 (*I experienced this change to a very great degree as a result of the event*). Responses to this instrument were not included in analyses as this instrument was simply included to ensure that the questionnaire ended with a more positive tone.

Study 1 Results

Descriptive

The 314 women who endorsed a rape experience represented 45% of the total participants who completed, at least partially, the SES measure of victimization. Missing data on individual items of the SES were treated as non-endorsement of those items. There were 189 women who completed the remaining measures and were included in further analysis. In this sample, there were 11 women who did not endorse a qualifying event on the SES but did endorse a rape experience on the follow-up question asking about the participant's most recent rape experience. These women were included in the analyses. Based on this sample size, the study had 99.4% power to detect a medium effect size ($F^2 = .15$) for a regression with four predictors at an alpha of .05 (Faul, Erdfelder, Lang, & Buchner, 2007). The breakdown of the participants' most recent rape experiences consistent with the study's definition included incapacitated oral sex ($n = 17$, 9.6%), oral sex after a threat ($n = 2$, 1.6%), forced oral sex ($n = 20$, 10.6%), incapacitated anal sex ($n = 9$, 4.8%), anal sex after a threat ($n = 0$), forced anal sex ($n = 8$, 4.2%), incapacitated vaginal sex ($n = 67$, 34.9%), vaginal sex after a threat ($n = 12$, 6.3%), forced vaginal sex ($n = 52$, 27.5%) and unreported ($n = 2$, 1.1%; i.e., those who failed to respond to the item requesting them to indicate which type of rape experience was most recent). The majority (40.7%) of these incidents occurred more than five years prior to their participation, and 28% occurred two to five years prior to their participation (1.6% did not indicate recency of rape). In the sample, 29.7% of participants had been raped in the past two years. The women reported that 98% of perpetrators were male and, when asked about their relationship with the perpetrators, their responses were 2.1% strangers,

29% romantic partners or dating, 44.4% recently met acquaintances or friends, 6.3%

relatives, 17.5% other, and .5% missing.

In the calculations of the distress (TSC), blame (SVAM), severity, and

maladaptive schemata (PTCI) total scores, missing values were replaced using mean

imputation where each participant's mean score for the scale was used as long as they

had completed at least 85% of the items for the scale. All scales were made up of the sum

of the items except for the PTCI subscales for maladaptive schemata related to the world

and to the self which are the means of the subscale items. The score for total maladaptive

schemata was calculated by adding the world and self subscale scores. This is

inconsistent with the method cited by Foa (1999), who also included the self-blame

subscale score in the total score. Self-blame items were not included in the total for this

study, as self-blame was considered part of the rape conceptualization rather than broader

schemata.

All scales (distress, characterological self-blame, behavioral self-blame, situation

blame, perpetrator blame, society blame, rape severity, maladaptive self schemata, and

maladaptive world schemata) demonstrated good internal consistency reliability ranging

from $\alpha = .71$ to .95, which was similar to the previous validation studies for these

measures. Normality of the distributions for the scales was tested using the K-S test and

natural log transformations were performed on the variables for maladaptive self

schemata, characterological self-blame, situation blame, and society blame. The

distribution for the maladaptive self schemata variable remained non-normal but

improved. The distribution for maladaptive world schemata was also non-normal but

was not improved with the natural log transformation, so the original variable was

retained in further analyses. Skewness and kurtosis for the final variables used in

analyses are reported in Table 1.

On the TSC-40, the participants reported high levels of total distress ($M = 76.0$,

$SD = 17.5$) which resembles the mean level of distress in a traumatized inpatient sample

from a validation study for the measure ($M = 71.8$; Zlotnick et al., 1996). Participants

ranged in their reported perceptions of consent and wantedness related to their identified

rape experience (see Table 2). Most women (53.4%) indicated that it was not at all true

that they consented to the event while the remaining 45.5% varied along the continuous

7-point likert scale with 5.3% of women reporting that it was very much true that they

consented (1.1% did not indicate perceived consent). Similarly, most women (62.4%)

reported the event as *strongly unwanted*, 20.6% reported that it was *moderately* or

slightly unwanted, 9% reported it was *slightly* to *strongly wanted*, 6.5% indicated they

had *no opinion*, and 1.6% did not indicate perceived wantedness. Mean, range, and

standard deviation of conceptualization, schemata, and distress measures are presented in

Table 1.

Tests of Hypotheses

The overall hypothesis of this study was that maladaptive schemata would

mediate the relationship between rape conceptualization and psychological distress. To

test this hypotheses, the Baron and Kenny (1986) method for analyzing mediation was

used, where a series of three regressions are estimated. First, the mediator was regressed

on the independent variable; second, the dependent variable was regressed on the

independent variable; and third, the dependent variable was regressed on both the

mediator and independent variable. In this final mediation model, the mediator must

remain a significant predictor of the dependent variable when controlling for the independent variable. In cases in which the mediator remained significant, the Sobel test was used to test the significance of this indirect effect. Bivariate correlations among all relevant variables are presented in Table 3.

Hypothesis 1.01. It was predicted that higher attributions of self-blame would predict distress indirectly through maladaptive self schemata. Initially, in the first step, characterological and behavioral self-blame were entered together to predict maladaptive self schemata. Although characterological self-blame was a significant predictor ($\beta =$ .71, $p < .001$), behavioral self-blame did was not ($\beta = -.09$, $p = .17$). Behavioral self-blame was removed from further analysis. Repeating step one with only characterological self-blame, it was found that increased characterological self-blame significantly predicted more maladaptive self schemata, $F(1,183) = 141.54$, $p < .01$, $R^2 =$ .44. In the second step, increased characterological self-blame was significantly related to higher distress, $F(1,186) = 24.71$, $p < .001$, $R^2 = .12$. In the third and final step, characterological self-blame was no longer a significant predictor of distress ($\beta = .4.36$, $p = .24$) when controlling for maladaptive self schemata, which remained a significant predictor ($\beta = .36$, $p < .001$) of higher levels of distress. The overall model was significant, $F(2,182) = 21.52$, $p < .001$, and accounted for 19.1% of the variance in distress. Finally, using a Sobel test calculation, the difference between the mediation path and the direct path from characterological self-blame to distress was examined. Consistent with the hypothesis, results indicated that maladaptive self schemata significantly and fully mediated the path between characterological self-blame and distress, *Sobel* = 3.86, $p < .01$.

Hypothesis 1.02. For this hypothesis, it was predicted that higher attributions of external blame would predict distress indirectly through maladaptive world schemata. To begin, perpetrator, situation, and society blame were all entered as predictors of maladaptive world schemata. Situation blame was not significantly related to maladaptive world schemata (β = -.02, p = .77) and was removed from further analyses. Step one was repeated with only perpetrator and society blame and was significant, as more perpetrator blame (β = .30, p < .001) and more society blame (β = .25, p < .001) significantly predicted more maladaptive world schemata, $F(2,182)$ = 26.04, p < .001, R^2 = .22. However, in step two, neither perpetrator blame (β = .11, p = .17) nor society blame (β = .12, p = .13) significantly predicted distress and no further analyses were conducted for this hypothesis. The hypothesis was not supported.

Hypothesis 1.03. It was predicted that higher perceived rape severity would predict distress indirectly through maladaptive self and world schemata. In two separate regressions for step one, increased perceived severity predicted greater maladaptive self schemata, $F(1,181)$ = 10.04, p < .01, R^2 = .05, and increased perceived severity predicted greater maladaptive world schemata, $F(1,181)$ = 54.47, p < .001, R^2 = .23. However, severity failed to predict distress in step two and no further analyses were tested for this hypothesis, $F(1,182)$ = 2.23, p = .14, R^2 = .01. The hypothesis was not supported.

Hypothesis 1.04. In Hypothesis 1.04, it was predicted that lower perceived wantedness would predict distress indirectly through maladaptive world schemata. In step one, lower perceived wantedness of the event significantly predicted more maladaptive world schemata, $F(1,183)$ = 13.76, p < .001, R^2 = .07 . However, perceived

wantedness failed to predict distress in step two, and no further analyses were tested for this hypothesis, $F(1,184) = .03$, $p = .86$, $R^2 < .00$. The hypothesis was not supported.

Hypothesis 1.05. Finally, it was predicted that lower perceived consent would predict distress indirectly through maladaptive world schemata. In step one, lower perceived consent significantly predicted more maladaptive world schemata, $F(1,183) = 6.69$, $p < .01$, $R^2 = .04$. However, perceived consent failed to predict distress in step two and no further analyses were tested for this hypothesis, $F(1,185) = 2.26$, $p = .14$ $R^2 = .01$. The hypothesis was not supported.

<div align="center">

Study 1 Discussion

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Self-blame, Maladaptive Schemata, and Distress

Study 1 examined cognitive conceptualizations of rape and maladaptive schemata as predictors of distress in female rape victims. Specifically, it was hypothesized that certain types of maladaptive schemata would mediate the relationship between aspects of rape conceptualization and current reports of distress.

Only one of the five hypothesized mediation models was supported; greater characterological self-blame predicted higher levels of distress indirectly through more maladaptive schemata related to the self. This finding is consistent with theoretical and statistical modeling research (e.g. Koss et al., 2002; Resick & Schnicke, 1996), which has suggested that women who blame themselves for a rape are more likely to develop problematic beliefs about self-efficacy, self-worth, and their ability to control future outcomes. These maladaptive schemata then engender higher levels of distress such as depressed mood and anxiety.

This finding also may help explain some of the inconsistencies in the literature regarding the adaptiveness of self-blame, as self-blame has sometimes been found to be positively associated with distress (e.g. Bondurant, 2001; Botta & Pingree, 1997; Ullman et al., 2006, 2007; Wyatt et al., 1990) and sometimes been found to be negatively associated with distress (e.g. Breitenbecher, 2006). In the current study, when entered together in a regression, characterological self-blame, but not behavioral self-blame, predicted more maladaptive self-schemata. If blaming one's enduring trait-like characteristics engenders more problematic self-schemata and blaming one's behavior does not have the same effect, then it would be expected that characterological and behavioral self-blame may have a differential impact on distress, which is related to maladaptive schemata. Although behavioral self-blame was (relatively weakly) associated with distress in this sample as a whole (see Table 3), for some individuals, behavioral self-blame may actually be adaptive because it may increase a woman's belief that she has control over what happens to her–a belief that is in contrast to the maladaptive self schemata measured by the PTCI. This differential impact of these two types of self-blame also has been observed in previous research (Breitenbecher, 2006; Frazier, 2003; Frazier et al., 2005; Koss et al., 2002). Although behavioral self-blame was associated with distress in this study, that relationship was not mediated by schemata. Factors other than maladaptive schemata may help to account for the relationship between behavioral self-blame and distress (e.g. hypervigilent and avoidant behaviors developed as a way to prevent engaging in behaviors perceived to put a victim at risk again).

Conceptualizations and Maladaptive Schemata

The remaining hypotheses which proposed that other aspects of conceptualization (external blame, perceived severity, perceived wantedness, and perceived consent) would have similar relationships with distress were not confirmed. However, all four aspects of conceptualization predicted greater maladaptive schemata. Considering that maladaptive schemata is a negative outcome of sexual victimization in its own right, this finding is important. Women who endorsed greater blame directed at their perpetrator and society and who perceived a rape as more severe, less wanted, and less consensual were more likely to hold negative, global beliefs about the world. Additionally, women who perceived a rape as more severe also held more negative, global beliefs about themselves. These conceptualizations serve to heighten a woman's fear for her safety, inability to trust others, and perception that she is damaged and unreliable.

Conceptualizations and Distress

Still, it is surprising that these remaining aspects of conceptualization were unrelated to distress. It could be that these components of conceptualization were no longer impacting levels of distress because the event had occurred long ago; indeed, almost half of the sample indicated that they had been raped more than five years prior to their participation in this study. Perhaps these conceptualizations were initially instrumental in establishing maladaptive schemata through the joint processes of accommodation and assimilation, but conceptualization no longer directly influenced distress. Both maladaptive schemata related to the self and the world were associated with higher levels of distress and may have been originally influenced by the way that the victims made sense of their rape experiences through these different aspects of

conceptualization. Additionally, this study used a measure of diffuse distress combining several common posttraumatic symptoms. Perhaps more specific types of distress (e.g. depression, PTSD, somatic) may be more directly affected by these conceptualizations.

External blame. Examining these conceptualizations independently may help to identify other explanations for these findings. First, regarding the role of external blame (directed toward perpetrators or society), it may be that blaming society, the situation, or the perpetrator may provoke maladaptive schemata such as believing the world is dangerous or that others are untrustworthy, but external blame may simultaneously serve to relieve some women's distress and increase other women's distress based on other unidentified reasons. For example, blaming a perpetrator who was a stranger may be associated with decreased post-rape distress because it spares the woman from guilt; whereas blaming a perpetrator who was an intimate partner or family member may be associated with increased post-rape distress because of the disruption to an important relationship. Controlling for these additional characteristics may help to explain the confusing relationships between external blame, maladaptive schemata, and distress.

Perceived severity. The finding that perceived severity was not directly related to distress may have been the most surprising. Uniformly, more severe rapes have been associated with greater distress (e.g. Kaysen et al., 2005; Resnick et al., 1992), although most studies have examined this relationship in women who were more recently raped. One possible explanation is that some measures of severity include items that assess the degree of distress at the time of the rape as an indicator of severity. For example, Layman and colleagues (Layman et al., 1996) include sobbing/crying during assault as an indicator of severity and Kaysen and colleagues (Kaysen et al., 2005) include feelings of

anger, anxiety, calm, and numbness in their measure of severity. It is logical that measures which incorporate peritraumatic distress during an assault would be highly related to post-rape distress. To prevent multicollinearity and to ensure that the severity measure did not contain items that overlapped with other measured constructs, this study did not include items assessing psychological distress (e.g., anxiety, sadness) at the time of the rape. Given the strong internal consistency demonstrated by the measure of severity and given its association with maladaptive schemata, it is believed that the composite measure of severity demonstrated reasonable reliability and validity despite the surprising lack of relationship between severity and distress.

Perceived wantedness and perceived consent. Perceived wantedness and perceived consent were each measured by only a single item on which the distribution of responses was very skewed. It is likely that the lack of variability in responses on the items made it difficult to measure an association with distress. Still, it is important to note that despite the fact that all women identified their index event as an experience to which they did not consent, there were women who indicated that the event was wanted to some degree and consensual to some degree. These variables were related to maladaptive schemata. Greater perceived wantedness may even be protective against distress for some women as recently demonstrated by a qualitative study that found that some women who do not label an event as rape feel more in control and believe they can prevent future assaults (Peterson & Muehlenhard, 2011). Indeed, participants in the present study who perceived a rape as more wanted were more likely to believe that they were in control of future outcomes as evidenced by their lower scores on the maladaptive self-schemata measure. Women who perceived a rape as more wanted and more

consensual were more likely to believe that they were safe in the world and they could trust others as evidenced by their lower scores on the maladaptive world schemata measure. This is the first study to identify that women who perceived a rape as less consensual and less wanted hold stronger maladaptive world schemata such as beliefs that the world is unsafe, that people are untrustworthy, etc.

Study 2 Results

Descriptive

Of the 189 rape victims who were included in the T1 analyses, 136 women indicated an interest in being contacted for participation in the T2 survey by providing their email addresses. Additionally, 41 women who had endorsed a sexual assault experience at T1 and 40 women with no history of sexual victimization were invited to complete Study 2. Thus a total of 217 women were invited to complete the T2 survey. Seventy-eight women who had endorsed a rape at T1 responded to the T2 survey. This represents 57% of the 136 women invited and 41% of the total 189 eligible women in the T1 sample. A total of 132 women (61%) completed the T2 survey including the 78 women who had previously indicated that they had been a victim of rape, 29 women who had previously indicated that they had been victims of sexual assault and 25 control participants. Only data from the women who had been raped were used in the T2 analyses. The average length of time between T1 and T2 participation was 7.43 months ($SD = .46$). It is noteworthy that 31 women (23%) of those who responded at T1 reported some form of sexual victimization occurring between T1 and T2.

In order to ensure that participants were referring to the same event at T1 and T2 when responding to measures of conceptualization, two raters independently reviewed T1

and T2 qualitative descriptions of the event as well as quantitative responses regarding event characteristics including rape type, recency of the event, perpetrator sex, and relationship to the perpetrator. Events were classified as the same if their qualitative descriptions were reasonably similar and if the quantitative event descriptions had the same or similar content (e.g. "dating casually" and "romantic partner" were considered adequately similar). Events were classified as different (1) if their qualitative descriptions were clearly different, (2) if qualitative descriptions were missing or vague and event characteristics were largely inconsistent, or (3) if the participant was missing all event identifying data from T1 and/or T2. Crosstabs and a reliability analysis indicate that interrater reliability was outstanding, $K = .95$, $p < .001$; in the case of disagreements, the author made the final determination. Out of the 78 women from the rape group, 44 (56.4%) identified the same event at T1 and T2, and 34 (43.6%) identified different events or failed to respond to event identifying items at T1 or T2.

The 44 women who identified the same rape event at T1 and T2 were included in further analyses. With 44 participants, this study had 90% power to detect a medium effect size ($d = .5$) for a paired-sample t-test with an alpha of .05. The sample size gave this study only 59% power to detect a medium effect size ($f^2 = .15$) and 93% power to detect a large effect size ($f^2 = .35$) for regressions with 2 predictors and an alpha of .05. Because this sample is insufficient to adequately detect effects for the mediation analyses, the mediation analyses for this study were considered to be exploratory in nature, and the author opted to attend to effect sizes as well as statistical significance. Descriptive data for the T2 sample were similar to the total T1 sample. T2 participants ranged in age from 18 to 40 with a mean age of 25.41 ($SD = 4.8$). The majority of the

sample was White (88.6%), and the remaining women identified as African American or

Black (11.4%), Hispanic (2.3%), and Other (4.5%). There were two participants (4.5%)

who endorsed multiple racial and ethnic categories, indicating that they are biracial or

multiracial. The sample included students in their first year of college (6.8%), second

year (4.5%), third year (31.8%), fourth year (18.2%), fifth year and beyond (36.4%), and

non-degree seeking students (2.3%). Socioeconomic status as measured by household

income indicated that 18.2% reported an income of less than $15,000, 34.1% reported an

income between $15,000 to $29,000, 31.8% reported an income of $30,000 to $59,000,

11.4% reported an income of $60,000 to $99,000, and 4.6% reported an income of

greater than $100,000. The majority of participants reported that they were in an

exclusive, monogamous relationship (65.9%), and smaller proportions of participants

indicated that they were in an open relationship (2.3%), dating but not in a relationship

(15.9%), and not dating (15.9%). Crosstabs with a chi-squared statistic and t-tests were

conducted to analyze demographic differences between those who responded and those

who did not respond to the T2 invitation. Among the women who were invited to

complete the T2 survey, there were no statistically significant demographic differences

between those who responded and those who did not respond except on race $\chi^2 = 3.88$, p

$< .05$, $df = 1$. Proportionately more White women responded to the T2 survey (64%) than

did not respond to the T2 survey (36%). Only 45% of Non-White women responded to

the T2 survey, and 55% did not respond. Additionally, there was no significant

difference in distress among those who responded to the T2 survey and those who were

invited but did not respond to the T2 survey, $t(213) = -.53$, $p = .60$.

The breakdown of type of rape experience for the T2 sample included incapacitated oral sex ($n = 3$, 6.8%), oral sex after a threat ($n = 1$, 2.3%), forced oral sex ($n = 7$, 15.9%), incapacitated anal sex ($n = 1$, 2.3%), incapacitated vaginal sex ($n = 18$, 40.9%), vaginal sex after a threat ($n = 3$, 6.8%), and forced vaginal sex ($n = 11$, 25%). In this sample, 36.4% of these incidents occurred more than five years prior to their participation, 38.6% occurred two to five years prior to their participation, and 22.7% of participants had been raped in the past two years. The women reported that 100% of perpetrators were male, and when asked about their relationship with the perpetrators, their responses were 4.5% strangers; 18.1% romantic partners or dating; 52.3% recently met, acquaintances or friends; 4.5% relatives; and 20.5% other.

In the calculations of the distress (TSC), blame (SVAM), severity, and maladaptive schemata (PTCI) total scores, missing values were replaced using mean imputation where each participant's mean score for the scale was used as long as they had completed at least 80% of the items for the scale. As in T1, all scales were made up of the sum of the items except for the PTCI subscales for maladaptive schemata related to the world and to the self which are the means of the subscale items. The score for total maladaptive schemata was calculated by adding the world and self subscale scores. For Hypothesis 2.04 and 2.05, the relationships among changes in distress, changes in conceptualization, and changes in maladaptive schemata were examined. Consequently, the value of the difference between the rating at T1 and T2 were used in the analyses instead of the actual rating. T1 ratings were subtracted from T2 ratings; negative values indicated a decrease in the rating over time while a positive value indicated an increase in the rating.

All T2 ratings of scales (distress, self-blame, external-blame, severity, maladaptive self schemata, and maladaptive world schemata) demonstrated adequate internal consistency reliability ranging from $\alpha = .75$ to .96 except society blame $\alpha = .61$. Normality of the distributions for the scales and for the change scores was tested using the K-S test, and results indicated that all variables were distributed normally.

On the TSC-40, the participants reported high levels of total distress ($M = 76.9$, $SD = 23.2$). The average change in total distress varied dramatically from -42 to 46 ($M = 2.38$, $SD = 17.28$). Mean, range, and standard deviation of other T2 conceptualization and schemata measures and changes in conceptualization and schemata are presented in Table 1. A comparison of T1 and T2 ratings of perceived consent and perceived wantedness can be found in Table 2.

Tests of Hypotheses

To analyze changes in the variables of interest over time (Hypotheses 2.01-2.03), paired sample t-tests were used to compare the T1 and T2 ratings on measures of conceptualization, schemata, and distress. The remaining analyses (Hypotheses 2.04, 2.05) for the longitudinal phase of this research were similar to those described for Study 1 above. Baron and Kenny's (1986) test for mediation were used to examine how changes in adherence to maladaptive schemata mediated the relationship between changes in conceptualization and changes in distress. Bivariate correlations among all relevant change scores are presented in Table 5.

Hypothesis 2.01. First, it was predicted that, over time, there would be reductions in perceived wantedness and consent and in all attributions of blame (behavioral and characterological self-blame; perpetrator, situational, and societal external blame). The

results of paired sample t-tests indicated that there were no significant differences

between T1 and T2 conceptualizations of rape. Refer to Table 4 for statistics comparing

T1 and T2 ratings of the wantedness and consent items and T1 and T2 subscale totals for

behavioral, characterological, perpetrator, situational, and societal attributions of blame.

Hypothesis 2.02. Next, it was predicted that, over time, there would be reductions

in levels of distress. Paired sample t-tests indicated that ratings of distress did not change

significantly between T1 and T2, $t(43) = -.92$, $p =.37$ (see Table 4). The hypothesis was

not supported.

Hypothesis 2.03. In Hypothesis 2.03, it was predicted that there would be

reductions in maladaptive self and world schemata over time. Paired sample t-tests

indicated that maladaptive schemata related to the self did not change significantly

between T1 and T2, $t(43) = .28$, $p = .78$. Additionally, maladaptive schemata related to

others did not change significantly between T1 and T2, $t(43) = 1.02$, $p =.31$ (see Table 4).

The hypothesis was not supported.

Hypothesis 2.04. It was predicted that reductions in perceived wantedness would

predict reductions in distress indirectly through reductions in maladaptive self schemata.

In the first step for mediation, changes in perceived wantedness failed to significantly

predict changes in maladaptive self schemata, $F(1,42) = .08$, $p = .78$, $R^2 < .001$, and the

effect size was extremely small suggesting that this may not be attributable entirely to

lack of power. No further analyses were tested for this hypothesis. The hypothesis was

not supported.

Hypothesis 2.05. Finally, it was predicted that reductions in perceived consent

would predict reductions in distress indirectly through reductions in maladaptive self

schemata. In step one, changes in perceived consent failed to significantly predict

changes in maladaptive self schemata $F(1,42) = .08$, $p = .78$, $R^2 < .001$, and again, the

effect size was extremely small. No further analyses were tested for this hypothesis. The

hypothesis was not supported.

Supplemental analyses for Hypothesis 2.02. After further examination of the

distribution of participants' ratings of distress at T1 and T2, it became clear that some

participants' ratings of distress increased over time ($n = 25$) and others decreased over

time ($n = 18$). One woman reported no change in overall rating of distress. Two

exploratory paired t-tests were conducted examining changes in distress on the two

separate groups—women whose distress increased and women whose distress decreased

over time. Among participants who reported less distress at T2 ($M = 62.10$, $SD = 13.39$)

than T1 ($M = 74.76$, $SD = 15.07$), there was a significant change in level of distress from

T1 to T2, $t(17) = 4.26$, $p < .01$. Among participants who reported more distress at T2 (M

$= 85.23$, $SD = 21.53$) as compared to T1 ($M = 71.92$, $SD = 16.31$), there was also a

significant change in level of distress from T1 to T2, $t(24) = -5.88$, $p < .001$.

Study 2 Discussion

T1 and T2 Event Comparison

A large proportion of the women in this sample (43.6%) were inconsistent in their

responses to event-specific items from T1 to T2. This reduced the sample size for the T2

analyses by almost half and indicated that many women were unable to recall or

accurately report at T2 their rape experience that had occurred most recently before T1.

Most of these women provided information about a different victimization event, which

indicates that many had experienced multiple victimizations. One possibility is that the

women who provided consistent responses at T1 and T2 had been victimized fewer times and were better able to recall or report on one salient event rather than to have struggled to identify one out of several traumatic experiences. Yet, upon further examination, there was not a significant difference in consistency of T2 and T2 response between women who reported only one prior rape experience and women who reported more than one prior rape experience, $\chi^2 = 1.61$, $p = .21$. It is important to note, however, that only 12 of the T2 respondents had experienced only one prior rape. Future research assessing the role of revictimization in the cognitive processing of sexual trauma would provide important details about women who experience multiple instances of rape and sexual assault.

      Changes over time. Contrary to the hypotheses, there were no significant changes from T1 to T2 in distress, conceptualizations of rape, or maladaptive schemata. One possible reason for this finding is that the majority of women (68.7%) indicated that the referenced rape had occurred at least two years prior to the T1 survey. Because the victimization was not recent for most women, it is possible that there was little change in cognitive processing and related levels of distress for these women. Other longitudinal studies have focused on women who have been recently victimized (e.g. Koss & Figueredo, 2004b), and their findings may reflect a more critical period of recovery or decline. Another possibility is that eight months is not an adequate amount of time to measure substantial changes in strongly internalized conceptualizations about victimization or rigid schemata about the self or world. A final explanation is that the sample was too small to detect a significant change in these domains (i.e., power was only adequate to detect medium effect sizes). However, the follow-up analyses

challenged all of these possible explanations. The follow-up analyses that were

conducted separated women whose distress increased from women who reported less

distress over time and found that the changes were significant. Thus, despite the

relatively long time average time since the rapes, the women's distress did change over

the course of the eight months; however, the direction of the change was not consistent.

Thus, there appear to be two separate groups of victims—those whose symptoms

improve over time and whose symptoms worsen over time. Future research with a larger

sample could contrast these two groups of women in terms of rape conceptualizations and

schemata in order to further elucidate the relationships among these variables.

Longitudinal mediation. The overall hypothesis that changes in maladaptive

schemata would mediate the relationship between changes in rape conceptualization and

changes in distress was not confirmed. Specifically, changes in perceived wantedness

and changes in perceived consent related to a rape both individually failed to predict any

change in maladaptive beliefs about the self. The most obvious explanation of these

findings is that the sample size was insufficient to detect a mediation of the hypothesized

changes in these domains, as there was only sufficient power to detect large effect sizes.

However, the effect sizes for these analyses were also extremely small, suggesting that

the non-significant results may have been attributable to something other than low power.

In addition to insufficient power, our variables of interest did not change significantly

from T1 to T2. With minimal changes over time, it is difficult to measure what may

significantly account for the small differences. Another possibility is that there was not

an adequate amount of time to see how changes in rape conceptualization may drive the

process of assimilation and accommodation to cause changes in maladaptive self

schemata. Or, as described above, it is possible that this process had already occurred for the women in this sample because the majority of the rapes had occurred several years prior. This explanation would be consistent with Frazier's (2003) belief that initial conceptualization is a critical factor in recovery after sexual assault but, over time, conceptualization may be less relevant to psychological functioning.

Although this study only tested two mediation models and initial steps for those models were non-significant, some interesting bivariate correlations were found (see Table 5). First, changes in characterological self-blame were significantly positively associated with changes in maladaptive world schemata, $r = .30, p < .05$. In other words, women who reported less blame of their personal, enduring characteristics over time also reported fewer beliefs about the world being unsafe or people being untrustworthy over time. Second, changes in perceived consent were significantly negatively associated with changes in distress $r = .41, p < .01$. Thus, women who perceived a rape as less consensual over time also reported an increase in distress over time. Although these findings do not provide evidence of the mediations hypothesized, it is noteworthy that there were significant associations between changes in the domains of interest. Whether or not they directly affect each other, this finding shows that fluctuations in conceptualizations of rape co-occur with fluctuations in maladaptive schemata and distress.

General Discussion

Participant Characteristics

The participants in this study were drawn from a general population of undergraduate students and contained a large proportion of women who had been raped. The rate of victimization in this sample (37.5%) was substantially higher than previous

studies, which indicate that 20-25% of college women have experienced rape or attempted rape (e.g. Fisher et al., 2000). There are a number of possible explanations for the higher prevalence of rape in the sample. This study used a definition of rape which was inclusive of multiple types of nonconsensual sexual experiences, not limited to vaginal penetration as in some studies (e.g. Peterson & Muehlenhard, 2007). Additionally, the women in this sample had a higher mean age (26 years) than the average college student population and contained many non-traditional students. Many of the students at this university are from urban, low-income communities and are commuter students. Additionally, the majority (76.7%) of students at this university are transfer students (University of Missouri, 2012). Thus, the range of life experiences among these women may be more variable than a typical undergraduate sample.

Furthermore, there was a high prevalence of victimization that occurred during the course of the study. Almost one-fourth (23%) of the women who responded to the T2 questionnaire experienced a rape or sexual assault during the time since they completed the T1 survey. Out of the women who had previously been raped ($n = 78$), one was raped again, eight were raped and sexually assaulted again, and twelve were sexually assaulted again. It is possible that these events affected these women's levels of distress, maladaptive schemata, and even their conceptualizations of past and recent victimization events. Without a larger sample size, it was not possible to examine the impact of revictimization on the variables of interest. Further longitudinal research that attempts to target women who are at-risk for sexual victimization (e.g., college age women who are actively socializing) to follow the course of cognitive processing and distress over time

would assist with clarifying the role of assimilation and accommodation in the course of recovery from both single and multiple incidents of rape and sexual assault.

Another distinctive characteristic of this sample was their high rates of distress at T1 ($M = 76.0$, $SD = 17.5$) and at T2 ($M = 76.9$, $SD = 23.2$). The women reported mean levels of distress that were similar to a normative traumatized sample ($M = 71.8$, $SD = 35.2$). Additionally, the women in this study had significantly higher distress for T1 ($t(220) = 7.94$, $p < .001$) and T2 ($t(77) = 5.58$, $p < .001$) than a normative non-traumatized sample ($M = 50.3$, $SD = 18.0$; Zlotnick et al., 1996). This is especially noteworthy because the normative samples were taken from an inpatient population, and this sample presumably consists of higher-functioning undergraduate students who are currently enrolled in classes and thus meeting at least minimal academic expectations to maintain enrollment. This finding also carries important implications for assumptions about the severity of symptoms exhibited by undergraduate samples in comparison to clinical, inpatient samples. It is likely that these high levels of distress are interfering substantially in the women's lives and may have been interfering for a long time given that many of the reported victimizations occurred several years prior to the study. Among college students who have experienced sexual victimization, extremely high rates of distress may be observed despite signs of resilience demonstrated by their continued educational pursuits.

Cognitive Mediation of Distress

This study aimed to build on prior theoretical cognitive and emotional processing models and on a few select empirical studies that have proposed and validated relationships among cognitive conceptualization of a single rape event, maladaptive

schemata, and distress. Using behaviorally specific, continuous, and in some cases,

multidimensional measures, a more comprehensive set of rape conceptualizations than

prior studies was examined, as the measures of conceptualization included self-blame,

perceived severity, and perceived wantedness. Cross-sectional evidence confirmed the

cognitive mediation of post-rape distress in relation to self-blame; women who have

increased levels of self-blame related to their own character tend to develop more

negative beliefs about themselves and their efficacy, which then results in greater

distress. Interestingly, the blame attribution aspect of rape conceptualization is the only

one that has been identified previously in the cognitive processing literature examining

this mediated relationship (Frazier, 2003; Koss et al., 2002), and it was the only aspect of

rape conceptualization in this study that demonstrated this proposed mediated

relationship.

The results confirm this established mediation relationship for a group of women

who, on average, reported a rape that occurred several years prior to the study. Prior

studies have collected data from women within one year after a rape or sexual assault,

and the results of the present study indicate that conceptualizations of self-blame impact

cognitive predictors of distress even after a substantial amount of time has passed. In

fact, over the short period that lapsed during the longitudinal portion of this study, there

were no significant changes in the women's rape conceptualizations, and on average,

their maladaptive schemata related to self and world and distress remained high from T1

to T2. This suggests that problematic rape conceptualizations and negative cognitive and

emotional outcomes related to rape may remain stable over a long period of time.

Longitudinal findings from the present study failed to confirm the proposed cognitive mediation for changes in conceptualization, schemata, and distress over time. Yet, there was preliminary evidence of associations between changes in attributions of blame and changes in schemata as well as between changes in perceived consent and changes in distress.

Implications and Future Directions

The findings of this study hold a number of clinical and research implications. On the one hand, several treatments (e.g. Cognitive Processing Therapy) for victims of trauma have already been developed based on cognitive processing theories of recovery. On the other hand, the development of these treatments has relied on theoretical assumptions about the processes of assimilation and accommodation that require validation by empirical studies such as those conducted by Koss and colleagues (2004a, 2004b; 2002) and the current study. For self-blame, this study confirms that, through the process of accommodation, women develop negative self schemata, which exacerbates distress. Therapeutic interventions aimed at decreasing attributions of characterological blame will improve clients' beliefs about their efficacy and esteem. These changes will likely improve psychological well-being by reducing distress.

This study also provides evidence of the therapeutic usefulness of examining other aspects of conceptualization in relation to the development of maladaptive schemata. At T1, all aspects of conceptualization (attributions of blame and perceived severity, wantedness, and consent) were predictors of the hypothesized type of maladaptive schemata (self or world). Additionally, at T2, changes in characterological blame were significantly associated with changes in maladaptive world schemata.

Applied, this finding indicates that therapeutic interventions aimed at changing

conceptualizations of victimization may help to prevent the development of or continued

adherence to maladaptive schemata, which is a negative outcome of trauma in itself.

Finally, recognition of the individual differences in the experiences and

perceptions of rape victims provides a rationale for more complex cognitive models that

assess multiple variables on a continuum to reflect the significant variability that exists in

the way that women interpret and make meaning of their rape experiences. For example,

in these studies, despite identifying behaviors that fit the same behavioral definition of

rape, some women perceive the event as wanted and consensual to some degree while

others perceive it as entirely unwanted and nonconsensual. Applied clinically, this is a

call to refrain from making assumptions about a client's perception of a traumatic event

or pursuing adherence to a specific conceptualization. Instead of approaching clients with

specific goals to change their conceptualization of sexual victimization,

psychotherapeutic effectiveness may be enhanced by honoring each individual's

experience and perception of victimization. Only then can it be determined which

aspects of conceptualization are contributing to maladaptive cognitions. These

problematic aspects of conceptualization can then be targeted for change.

This research is situated within the larger context of social cognition theory which

has established the dual processes of assimilation and accommodation for understanding

the relationship between emotionally-salient events and individuals' beliefs about

themselves, others, and the world. The findings of these studies support the proposal that

an individual's interpretation of a traumatic event like rape is accommodated by a shift in

her understanding of herself and the world. Future longitudinal research is needed to

examine the process of assimilation to examine how pre-existing schemata can shape an individual's conceptualizations of traumatic events. This requires identifying at-risk groups prior to victimization, which carries with it the burden of responsibility to protect potential victims as well. Still, identifying the protective role of pre-existing schemata would assist prevention efforts to equip women with adaptive cognitive coping skills.

Similar studies have begun to examine the role of initial post-rape conceptualizations in driving recovery (e.g. Koss & Figueredo, 2004b). A future application of the theory tested in this study could examine how initial rape conceptualizations are related to schemata and distress at a later time point. A study that targets a larger sample of women shortly after victimization would be able to explore this research question. Specifically, how a woman immediately comprehends a rape may be a clearer predictor of her subsequent maladaptive beliefs and distress rather than changes in her conceptualization over time. Targeting women who have experienced sexual victimization recently may help to explain this relationship better.

Limitations

There are limitations of this study that attenuate the generalizability of these findings. First, the sample included only college women and the results may not extend to men, older women, or help-seeking populations. Although the original T1 total sample was somewhat racially diverse, the majority of women who completed all of the necessary measures and the T2 study were White. Cultural differences related to social pressure, identity, or understanding of victimization may lead minority women to cognitively mediate a rape experience differently than the White women in the sample.

Another limitation was related to responding. Although 314 women indicated that they had experienced a rape on the SES or on a rape screen item asking if they had positively endorsed any SES items, only 189 completed the follow-up conceptualization and schemata measures. Participants may have been confused by the order or wording of the questions or may have been uncomfortable with the content of the questions, which prevented them from accurately completing the entire survey. Without the opportunity to obtain data from participants in-person, online data gathering methods are vulnerable to these types of limitations. It is possible that those women who completed all of the follow-up measures differed systematically from those that did not complete the follow-up measures.

Furthermore, although the response rate (60.8%) for Study 2 resembled response rates for other longitudinal online research (e.g. 65%; Hiskey & Troop, 2002), the sample was greatly reduced by the lack of consistency in responses at T1 and T2. To have optimal power (95%) to detect a medium effect at the 0.05 level for the study's most complicated regression analysis (involving 2 predictors), 107 participants would have been needed. The ability to detect a significant mediation effect for changes over time in this study was limited by insufficient power. Furthermore, this pattern of inconsistent responding is a caution to studies that rely on retrospective self-report data regarding sexual victimization. Individuals may have difficulty recalling events based on specific prompts (e.g. most recent, most serious) and their conceptualization of specific experiences relative to other events may change over time.

Additionally, the hypotheses and results of this study assumed an order of events; first women conceptualize the rape, next they develop maladaptive schemata, and last,

they experience distress. Even the longitudinal data from Study 2 are unable to conclusively establish a causal relationship between these domains, as the study measured changes that were all co-occurring over time. It is likely that these relationships are multidirectional and mutually constitutive.

A final limitation of this study was that sources of distress other than sexual victimization were not explored. A small number of participants indicated in a general comments section that there were other stressors in their lives which cause them greater distress than the rape event that they disclosed in the survey. The measure of distress that was used is specifically designed to assess trauma-related symptoms, but there is a great degree of overlap with general depression and anxiety symptoms. The method may still be seen as a strength, however, given that sexual victimization does not occur in a vacuum; female victims continue to live life with its array of stressors and joys. This study's findings related to the cognitive mediation of distress in rape victims may generalize to other women who are experiencing a wide variety of stressors as well.

Conclusion

This study has established that the way a woman comes to interpret and understand a rape event has a significant impact on the beliefs that she holds about herself and the world. Furthermore, having more and stronger maladaptive beliefs increases the distress a woman experiences following the event. Evidence has been presented which supports the hypothesis that the maladaptive beliefs a woman has about herself mediates the impact that blaming her enduring traits has on distress. This study also suggests that there may be two groups of rape victims, those whose distress worsens over time and those whose distress reduces.

This study supports the notion that cognitive mediation of a rape experience has

an impact on subsequent distress, which supports the continued development of

cognitively-based interventions for victims of sexual assault and perhaps other types of

trauma. The findings also challenge researchers and clinicians to put aside assumptions

about how individual women conceptualize sexual victimization. This recognition of the

individual differences in experiences and perceptions of victims provides a rationale for

more complex models that assess multiple variables on a continuum to reflect the

significant variability that exists in the experiences of individuals. Ultimately, this study

has identified several cognitive factors related to conceptualization and schemata that

help to explain the varied reactions of women who have been raped and can assist with

efforts to promote recovery.

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Table 1.

Descriptive statistics for T1, T2, and change variables of interest.

	Time One				Time Two				Change Over Time (Time 2 – Time 1)			
	Mean (*SD*)	Range	Skew	Kurt	Mean (*SD*)	Range	Skew	Kurt	Mean (*SD*)	Range	Skew	Kurt
Conceptualization												
Perpetrator Blame	49.8 (15.6)	16-80	-0.4	-0.5	51.2 (15.3)	18-78	-0.3	-0.8	.7 (15.4)	-49-28	-0.5	1.1
Character Self Blame$_1$	23.6 (10.1)	12-60	0.9	0.3	25.0 (11.4)	12-60	0.7	0.3	1.2 (8.8)	-24-25.6	0.2	1.5
Behavioral Self Blame	26.9 (8.8)	10-46	0.1	-0.8	27.9 (10.1)	10-44	-0.1	-1.4	1.5 (8.5)	-18-19	-0.03	0.2
Situation Blame$_1$	13.5 (6.1)	6-30	0.5	-0.7	14.6 (6.5)	6-30	0.6	-0.5	.8 (4.6)	-10-12	0.1	0.3
Society Blame$_1$	10.6 (4.7)	5-25	0.7	-0.03	11.1 (4.3)	5-23	0.3	-0.2	.1 (4.7)	-12-11	-0.4	0.5
Perceived Consent	2.4 (1.8)	1-7	1.1	0.2	2.4 (1.9)	1-7	1.2	0.3	.1 (1.5)	-5-4	-0.4	2.8
Perceived Wantedness	1.9 (1.5)	1-7	1.8	2.4	1.8 (1.4)	1-6	1.8	2.6	.2 (1.6)	-5-4	-0.1	2.4
Perceived Severity	55.7 (16.4)	16-80	-0.5	-0.5	55.5 (16.3)	23-80	-0.7	-0.5	-.7 (9.1)	-23-24	0.4	1.3
Schemata												
Self$_1$	2.1 (1.1)	1-6.9	1.5	2.4	2.3 (1.3)	1-6.3	1.4	1.5	-.04 (1.0)	-2.6-2.6	0.3	1.9
World	4.3 (1.6)	1-7	-0.5	-0.6	4.3 (1.6)	1.1-7	-0.3	-0.8	-.2 (1.3)	-3.4-2.9	-0.1	0.9
Total Distress	76.0 (17.5)	41-134	0.7	0.2	76.9 (23.2)	44-137	0.9	0.3	2.4 (17.3)	-42-46	-0.2	1.3

[1] Variables were transformed for the analyses using a natural log transformation. Values reported here are the untransformed values.

Table 2.

Comparison of ratings of perceived wantedness and perceived consent at time one and

time two.

	Time One		Time Two	
	n	%	*n*	%
I felt I consented to or agreed to this experience				
1: Not at all	101	53.4%	24	54.5%
2	18	9.5%	4	9.1%
3	17	9.0%	4	9.1%
4	25	13.2%	5	11.4%
5	9	4.8%	4	9.1%
6	7	3.7%	0	0.0%
7: Very Much True	10	5.3%	3	6.8%
Overall, how much did you want or not want to engage in sexual intercourse in this situation				
1: Strongly unwanted	118	62.4%	29	65.9%
2: Moderately unwanted	29	15.3%	5	11.4%
3: Slightly unwanted	10	5.3%	4	9.1%
4: No Opinion	12	6.3%	4	9.1%
5: Slightly wanted	6	3.2%	0	0.0%
6: Moderately wanted	7	3.7%	2	4.5%
7: Strongly wanted	4	2.1%	0	0.0%

Table 3.

Bivariate correlations of T1 variables of interest.

	1	2	3	4	5	6	7	8	9	10
1. Distress										
2. Perpetrator Blame	.17*									
3. Character Self-Blame	.35**	.37**								
4. Situation Blame	.11	.19*	.40**							
5. Behavioral Self-Blame	.21**	.26**	.55**	.44**						
6. Society Blame	.17*	.44**	.23**	.24**	.21**					
7. Severity	.11	.59**	.07	-.15*	-.13	.29**				
8. Perceived Wantedness	-.01	-.35**	-.04	.12	.16*	-.06	-.55**			
9. Perceived Consent	.11	-.10	.23**	.18*	.37**	-.05	-.44**	.51**		
10. Self Schemata	.43**	.31**	.64**	.21**	.31**	.26**	.23**	-.17*	.04	
11. World Schemata	.25**	.42**	.30**	.10	.04	.37**	.48**	-.26	-.19*	.51**

*Correlation is significant at the 0.05 level; **Correlation is significant at the 0.01 level.

Table 4.

Paired-sample t-test comparisons of time one and time two variables of interest.

	T1 *M(SD)*	T2 *M(SD)*	$t(43)$	p
Hypothesis 2.01				
Perpetrator Blame	50.442(15.90)	51.15(15.34)	-0.32	0.75
Behavioral Self Blame	26.39(8.85)	27.85(10.10)	-1.14	0.26
Characterological Self Blame	23.81(10.33)	25.04(11.38)	-0.94	0.36
Situation Blame	13.80(6.18)	14.61(6.55)	-1.16	0.25
Society Blame	11.02(5.08)	11.09(4.35)	-0.1	0.92
Perceived Severity	56.13(15.37)	55.48(16.35)	0.48	0.64
Perceived Wantedness	1.61(1.15)	1.80(1.36)	-0.76	0.45
Perceived Consent	2.32(1.72)	2.39(1.88)	-0.29	0.77
Hypothesis 2.02				
Distress	74.49(18.01)	76.88(23.19)	-0.92	0.37
Hypothesis 2.03				
Self Schemata	2.30(1.24)	2.26(1.30)	0.28	0.78
World Schemata	4.51(1.46)	4.31(1.63)	1.02	0.31

Table 5.

Bivariate correlations of T2 change variables of interest.

T2-T1 Changes in:	1	2	3	4	5	6	7	8	9	10
1. Distress										
2. Character Self-Blame	.35*									
3. Behavioral Self-Blame	.19	.62**								
4. Perpetrator Blame	.26	.61**	.68**							
5. Situation Blame	.26	.54**	.62**	.45**						
6. Society Blame	.06	.47**	.45**	.55**	.15					
7. Severity	.16	.27	.33*	.35*	.11	.32*				
8. Perceived Wantedness	-.03	-.02	.01	-.18	-.04	-.01	.02			
9. Perceived Consent	-.41**	-.18	-.33	-.17	-.13	-.08	-.24	.10		
10. Self Schemata	.0	.19	.08	-.06	.02	-.09	.06	-.04	.04	
11. World Schemata	.16	.30*	.17	.13	.11	.05	.12	-.06	.01	.57**

*Correlation is significant at the 0.05 level; **Correlation is significant at the 0.01 level.

Figure 1.

Cognitive mediation model of the impact of rape on psychological distress.