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INTERNAL AND EXTERNAL MEDIATORS OF WOMEN'S RAPE EXPERIENCES

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Internal and external factors are examined as mediational processes and/or coping strategies that link four aspects of women's rape experiences to the initial and lasting effects on their post-rape adjustment, attitude toward sex and intimacy, and lifestyle changes to prevent future assaults. Data are from a multiethnic community sample of 55 women who had been victims of rape or attempted rape. A measured or observed variable simultaneous path analysis model was used to test the relationships among the traumatic circumstances, mediators, and outcome variables. More self-blame, high involvement of police or other agencies, a greater number of repeated rapes per incident, and severity of abuse predicted women's negative initial and lasting attitudes toward sex and intimacy. The implications of these findings are discussed as they relate to barriers in disclosing attempted and completed incidents of rape.

Incidents of attempted and completed rape are known to be some of the more serious forms of sexual assault (Russell, 1983). In the past 10 years, the initial and lasting effects of rape on women's psychological adjustment (Cohen & Roth, 1987; Holmes & St. Lawrence, 1983; Kilpatrick, Veronen, & Resick, 1982; Marhoefer-Dvorak, Resick, Hutter, & Girelli, 1988; Meyer

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& Taylor, 1986; Ruch & Chandler, 1983; Sales, Baum, & Shore, 1984), sexual functioning (Becker, Skinner, Abel, & Cichon, 1986; Cohen & Roth, 1987; Feldman-Summers, Gordon, & Meagher, 1979), and subsequent intimate relationships (Cohen, 1988; Cohen & Roth, 1987; Meyer & Taylor, 1986; Resick, 1983) have been well documented (see also Koss & Burkhardt, 1989). There is still no universal consensus that rape is as stressful an experience as many report it to be. For example, until recently (Wright, 1985), rape was not conceived of as a major life event or as a daily stressor in studies of psychological problems (Hammen, Marks, Mays, & DeMayo, 1985; Kanner, Koyné, Schaefer, & Lazarus, 1981). Consequently, many measures used to assess the effects of attempted or completed rape incidents in these studies do not necessarily include problems specific to sexual assault. Without research identifying the specific effects of rape, we are limited in understanding how this experience is similar to or distinct from other traumatic events.

In spite of the growing volume of research on rape (Koss, 1985; Russell, 1983), there are several reasons why we do not know more about its effects. Many aspects of the experience do not meet societies' criteria for the "typical" rape that is assumed to occur (Burt, 1980; Koss & Burkhardt, 1989). Consequently, victims may not disclose their assault experience until years later (Williams, 1984; Williams & Holmes, 1982). Although rape is most often perpetrated by persons who are known to the victim (Koss & Burkhardt, 1989; Koss, Dinero, Seibel, & Cox, 1988; Russell, 1983; Williams, 1984), societal attitudes are more negative toward victims of acquaintance rape and view stranger rape as the more serious assault (Tetreault & Barnett, 1987). However, most research indicates that both acquaintance and stranger rape have a similar impact upon victims (Koss et al., 1988).

The lifetime prevalence of attempted and completed rapes (15–22%) is most likely underestimated because women often do not consider themselves as rape victims (Burt & Estep, 1981; Koss & Burkhardt, 1989; Koss et al., 1988). Victims who are more severely abused also tend to receive less support than those who experienced less violent rape (Ruch & Chandler, 1983). When rape is disclosed to the authorities, the investigation of the allegations and prosecution of the perpetrator often results in the revictimization of the survivor (Burt, 1980).

Consequently, rape survivors often attempt to cope with the experience without the support of legal, medical, or mental health professionals. We need to understand more fully the social-psychological processes of rape and the pervasiveness of its aftermath for those whose assault is unreported and who do not seek or receive professional attention (Koss & Burkhardt, 1989). Such information is important for researchers and particularly so for the general public who, in the coping and healing process following rape, may prefer instead to seek support from a network of family and friends.

Most rape research focuses upon the initial effects of rape from 3 months to 1 year (Sales et al., 1984). Since few studies have examined long-term effects beyond 3–4 years post-rape (Ellis, 1983; Girelli, Resick, Marhoefer-Dvorak, & Hutter, 1986; Resick, 1983; Santiago, McCall-Perez, Gorcey, & Beigel, 1985), the available empirical studies are limited to the assessment of the trauma of recent abuse. Many of the samples in current rape research do not include the highest risk groups such as women living in areas with high crime rates. While studies historically have included samples who are recruited while seeking help for their victimization (Burgess & Holmstrom, 1974; Cirelli et al. 1986; Sales et al. 1984), college students are the most common subjects (Koss, 1985). There are few epidemiological studies that include multiethnic samples and examine ethnic differences in rape (Russell, 1986). Ethnic minorities are often underrepresented in research, even though African-American women have been described as most at risk for rape at some point in their lives (Amir, 1971; Hinderland & Davis, 1977; Katz & Mazur, 1979; Miller et al., 1978; National Crime Survey, 1975; Peters, 1976).

Inconsistencies have been noted in the questions asked to elicit a rape history (Koss, 1985). Earlier studies included one indirect question regarding sexual assault (Bureau of Justice Statistics, 1980). More current research indicates that behavior-oriented questions that describe the use of coercion in sex on a continuum is more likely to reveal unacknowledged rape incidents (Koss, 1985). Some definitions include rape occurring in childhood (before age 18), along with those reported in adulthood (since age 18), and cite a lifetime prevalence rate (Koss, 1985; Russell, 1983). However, research on the effects of child sexual victimization has indicated that there are specific factors related to the manner in which children process attributions for their victimization (Finkelhor, 1984, 1988) that may be quite distinct from adult women. Rape experiences also need to be examined within a developmental context in order to avoid overlooking age related issues that may also influence negative outcomes.

Finally, sexual assault does not affect all victims to the same degree. Research has yet to examine the mediating factors that minimize or exacerbate the most traumatic aspects of rape (Koss & Burkhart, 1989). Studies of cognitive processes have been used in other research on coping with stress (Cervantes & Castro, 1985; Friedrich, Urquiza, & Belke, 1985; Harter, Alexander, & Neimeyer, 1988). Internal mediators such as behavioral and characterological self-blame have been associated with a poor adjustment to rape (Meyer & Taylor, 1986). Among the specific problems noted are fear, anxiety, depression, problems in interpersonal relationships (Orzek, 1983; Resick, 1983), and self-perceptions as a victim (Meyer & Taylor, 1986).

In light of societal attitudes about rape, external mediators such as the supportive responses of the person(s) to whom the rape was disclosed should also be included in research. The influence of supportive persons

may help to minimize the effects of rape, including anxiety, symptoms of Post-Traumatic Stress Disorder (Kilpatrick et al., 1982; Roth, Dye, & Lebowitz, 1988), sexual dysfunction (Becker et al., 1986; Kilpatrick et al., 1982), the dissolution of relationships (Cohen, 1988), mistrust of men, depression, flashbacks of the original trauma (Girelli et al., 1986; Resick, 1983; Santiago et al., 1985), suicide attempts (Kilpatrick et al., 1982), and nervous breakdowns years after the assault has occurred (Kilpatrick, Best, & Veronen, 1984).

The support of families or friends can also facilitate the victim's understanding of her sexual assault. If victims do not disclose their assault to anyone, support systems are prevented from helping survivors deal with the trauma. Support in the disclosure process has been found to help child victims regain control of their lives and to lessen the lasting effects of sexual abuse (Wyatt & Mickey, 1987). More empirical documentation about mediating processes such as attribution to victimization and the support of family, police, or other agencies and later outcomes is needed in research on adult victims.

Few studies have attempted to identify which of the many traumatic dimensions involved in rape are directly interconnected. For example, little is known about the effects of the victim's age at the time of the most recent abuse and its influences upon later outcomes. Younger victims tend to have higher levels of symptoms that are relatively short in duration, whereas older victims have less severe symptoms (Cohen & Roth, 1987), but with more long-term effects. Current research does not clarify, in cases of multiple occurrences of rape (Marhoefer-Dvorak et al., 1988), which of the ages of abuse were used in the analyses. It seems viable, however, to expect that the age of the most recent abuse might be important, because the effects initially experienced after a rape have been described as part of Post-Traumatic Stress Disorder, the Rape Crises Syndrome, and the overall effects of sexual violence (Burgess, 1983; Cunningham, Pearce, & Pearce, 1988; Holmes & St. Lawrence, 1983; Rosenberg, 1986).

Studies have not examined the number of rapes per assault by one or more perpetrators for their effects upon the trauma of the sexual assault. The severity of attempted or completed rapes involving the use of physical violence, threats of death, or use of weapons to coerce victims, has been identified as contributing to women's psychological problems (Ruch & Leon, 1983). We need more research examining the trauma to determine which specific aspects may have the greatest effect on later outcomes.

Similar to the research of Sales et al. (1984), coping strategies used to avoid future assaults have been described in the literature. Survivors of attempted rape have typically enrolled in a self-defense course, began therapy, and had extra locks and alarms installed. Survivors of a completed rape, however, have been less likely to engage in behavior which may provide protection from future assaults. A primary reason for not seeking

preventive measures has been the perceived helplessness and extreme vulnerability to being re-victimized due to the trauma of the assault (Russell, 1983). Additionally, the preconceptions of family and friends "that if they don't talk about the assault and try not to think about it, the victim will forget and recover" (Resick, 1983).

This study differs from previous research in several ways. The long-term effects of attempted and completed incidents of rape are assessed in a multiethnic community sample of women. A method of incorporating the effects of multiple incidents of rape is used in multivariate analyses, examining four traumatic aspects of the rape experience: specifically, the age when rape last occurred (recency of abuse), the severity of the incidents, the number of rapes per assault, and the victim's relationship to the perpetrator. The victim's attribution for rape is used as an internal mediator. To whom the victim disclosed her abuse, the support she received, the actions they took, and whether the police or other agencies became involved are included as external mediators to assess which of these factors can heighten or lessen women's initial and lasting effects of rape.

The findings will hopefully be used to develop measures to assess more accurately the circumstances of multiple incidents of rape as well as its initial and lasting effects on women's sexual relationships and psychological adjustment years after rape has occurred.

METHOD

Sample Selection

Multistage stratified probability sampling with quotas was used to recruit comparable samples of African-American and Caucasian American women, aged 18-36 years, in Los Angeles County, for a larger study of women's sexual experiences. The age criteria included women who had an opportunity to develop a number of adult, heterosexual relationships. The actual quotas used for the study were based upon the population of African-American women, aged 18-36 years, with differing levels of education, marital status, and number of children. The inclusion of African-American and Caucasian American women in the sample was based upon their own ethnic identification (see Wyatt, 1985, for further discussion).¹

The participants were located by random-digit dialing of 11,834 telephone prefixes in L.A. County, combined with four randomly generated numbers. Random digit telephone dialing procedures identified 1,348 households in which a woman resided. Of those who met the demographic criteria, 709 agreed to participate and 266 refused, resulting in a 27% refusal rate.² The first 248 women meeting the desired quotas were interviewed: 126 African-American women and 122 Caucasian American women. Both samples were compared for women in L.A. County and was

Table 1
Demographic characteristics of African-American and
Caucasian American women ($N=55$)

	<i>African-American Women</i> ($N=31$)		<i>Caucasian American Women</i> ($N=24$)	
	No.	%	No.	%
<i>Age range</i>				
18-26	13	24	6	11
27-36	18	33	18	33
<i>Education</i>				
Less than high school	6	11	3	5
High school graduate	13	24	10	18
Some college	8	15	8	15
College graduate	3	5	2	4
Graduate/professional School	1	2	1	2
<i>Marital status</i>				
Never married	12	22	8	15
Ever married	19	35	16	29
<i>Children</i>				
None	8	15	9	16
1 or more	23	42	15	27

Note: $p > .05$.

found to be comparable (Wyatt, 1985). Table 1 illustrates the comparability of the demographic characteristics of 55 participants who reported at least one attempted or completed rape at age 18 or older and were subsequently used in the analyses. It was not possible to match both samples on income level. However, the range extended from less than \$5,000 to above \$50,000 per year, with comparability between groups except at very low income levels. These discrepancies between groups were also found in L.A. County statistics for income, by ethnicity (Wyatt, 1985).

Procedure

Each participant was interviewed face to face at the location of her choice by a trained female interviewer of the same ethnicity. Participants were reimbursed \$20.00 for their time and up to \$2.50 for expenses. Interviews were usually conducted in two sessions and ranged in total from 3-8 hours. At the completion of the interview, referrals for mental health services were provided upon request (for fewer than 5% of the sample).

Instrumentation

In an effort to obtain more specific information regarding a range of women's sexual experiences and the effects on their intimate relationships, psychological and sexual functioning, the Wyatt Sex History Questionnaire (WSHQ), a 478-item structured interview, was used to obtain both retrospective and current data regarding women's consensual and abusive sexual experiences. Before its use in research, it was initially pretested on two multiethnic groups (77 female volunteers and on 16 pilot respondents). Questions were arranged chronologically from childhood to adulthood so that inconsistencies in data would be apparent. If inconsistencies were noted, immediate clarification from the respondent was possible. For example, if a woman reported first intercourse at age 19 and a sexual assault at the same age, a series of questions was asked about the circumstances of each event to ensure that they were not identical.

Reliability was established for certain portions of the questionnaire. Interrater reliability, established on a weekly basis among the four interviewers, averaged .90. When 10 audiotapes were randomly examined for accuracy of interviewers' written transcriptions of participants' responses, only 2 responses out of 4,780 items were noted to have been in error.

Several additional analyses were conducted to examine the reliability of the data. Participants were asked about their demographic characteristics during telephone recruitment and again during the interview between 1-9 months later. Pearson correlations ranged from .82-1.0.

Finally, 119 respondents were re-interviewed about current and past demographic characteristics 1 month to 2 years after the initial interview (Peters, 1984). Pearson correlations ranged from .65 to .98. Overall, participants' responses over time were consistent, strengthening the probability that the responses to other questions were consistent, as well.

At the end of the interview, which covered a range of sex-related topics, respondents were asked four questions about whether they had experienced any of several types of sexual abuse most commonly reported since age 18. If the respondent answered "yes" to any of these questions, she was asked a series of more detailed questions about each incident.

Definition of Rape

In this study, rape was defined as the involuntary penetration of the vagina or anus by the penis or another object. After this definition was read to each person, they were asked about sexual experiences that may have occurred without their consent. These experiences may have occurred since age 18 and involved a friend, a relative, or stranger. The specific questions of interest to this study were:

Since the age of 18, have you ever been raped?

Since the age of 18, has anyone ever tried to rape you?

Regardless of a woman's uncertainty about whether a particular experience constituted sexual abuse, she was encouraged to describe it. This type of hesitancy was particularly common in cases of attempted or completed rapes committed by persons known to them. Consequently, the incident was sometimes not considered by these women to be a typical rape, as other studies have indicated (Burt, 1980). These incidents, however, were included in this study.

The approach used to assess the prevalence of types of sexual assault since age 18 differs from recent studies that use behavioral descriptions and exclude the term "rape" (Koss & Gidycz, 1985). This study defined incidents of attempted and completed rape and asked about the circumstances of each incident. Rape related information was sought after rapport was well established, 1-2 hours into a structured interview. Discrepancies between the woman's and research definitions of rape and terms such as "anus" (a word about which 9% were unfamiliar), "vagina," and "other objects used for penetration" were clarified. We found it particularly useful to discuss the definition of rape before women described their experiences. After the completion of the interview, it was not uncommon for women to recontact the interviewer and report additional incidents, once they realized that what they experienced was rape.

Preparation of Data

While attempted and completed sexual assaults and their effects have been examined previously (Ruch & Leon, 1983), few studies have examined the effects of multiple incidents (Marhoefer-Dvorak et al., 1988). Little attention has also been given to the cumulative impact of multiple experiences in data analyses. Consequently, a method of incorporating all incidents of sexual assault was developed on similar data (Wyatt & Mickey, 1988; Wyatt & Newcomb, in press) and modified for this study. Since age 18, 1 in 4 women reported at least one attempted or completed rape. The number of rape incidents ranged from 1 to 7, and 42% of women reported more than one attempted or completed sexual assault since age 18. When chi-square and Fisher's exact tests were used to assess differences between African-American and Caucasian women's responses to rape, a significant difference was found on only one item (Wyatt, 1988). Of those incidents where women attributed their assault to something about the perpetrator or the environment ("He was crazy and I was alone"), 76% were reported by African-American women as compared to 24% reported by their Caucasian peers (Fisher's exact test $p < .05$). However, since 61% of women attributed their victimization to something about themselves (internal attribution), the entire sample was used in these analyses and ethnic differences were not examined.

Four phases of data coding were required to accommodate multiple incidents of sexual assault. In the first phase, 25 variables were selected to

represent three domains: Circumstances of Abuse, Internal and External Mediators, and the Outcomes. These were chosen to represent constructs identified as important in the rape literature, some of which had yet to be examined empirically. Four strategies were used to recode data on a per person basis. First, categorical data, unsuitable for parametric analyses, were reordered for 12 variables. In order to take all abuse incidents into consideration, a single code was generated for each item to represent the consistency in the severity or circumstance of the event. For example, based upon previous studies (Russell, 1983), incidents that were perpetrated by family members or that occurred in the home were given higher values to designate the most severe circumstances. Second, women's most severe incident was used in coding four variables. For example, a victim reported being assaulted on two separate occasions. In the first incident, she was raped two or more times by a perpetrator. In another incident she was raped by one perpetrator, on one occasion. Consequently, the first incident of multiple rapes was used in the analyses. Third, there were 5 variables coded for the presence or absence of an attribute. For example, whether the perpetrator's ethnicity was consistently different from or similar to the victim was coded as (1) *yes* or (2) *no*. Finally, 4 variables received global ratings reached by two psychologists (with .90 reliability), assessing the consistency of responses over multiple incidents. For example, if a victim reported that those persons that she told about two incidents of assault were somewhat or very nonsupportive, respectively, coding on supportiveness of persons told overall, was nonsupportive (see Appendix). This method of coding highlights women's most severe multiple rape incidents.

These variables were examined for skewness. For 6 variables, categories were collapsed to ensure that the distributions were as normal as possible.

In the third phase, the associations between variables were examined in a correlation matrix; 8 variables were deleted because they failed to correlate with any others ($p > .05$). In the final phase, the remaining 18 variables were used to form four composite scores guided by factor analyses and their conceptual similarity. Five single variables were also used in subsequent analyses (see Appendix).

Consequently, the age of most recent rape, the severity of abuse (a composite score of the number of attempted or completed rape incidents and degree of physical coercion used), the maximum number of rapes per incident, and the proximity of the perpetrator to the victim (a composite score of the relationship of victim to perpetrator and the location of the rape) constituted the Circumstances of Abuse variables. The internal mediator was attribution for the rape incidents having occurred. However, since 61% of the women reported internal attributions, this variable was labeled self-blame. Supportive response to confiding was a composite score of to whom the victim disclosed the rape, their response, and any possible action taken by them. For example, the lowest composite score on this variable would indicate disclosing abuse to no one and consequently, no

response was offered nor actions taken. The effects of assault appear to be greatest when they are not acknowledged or discussed (Russell, 1983). If a woman told her husband and was reprimanded, with no other support, she received the second lowest composite score. A high score would indicate that a woman disclosed to her husband, received support, and was accompanied by him to the police or a rape crisis center. Involvement of authorities consisted of whether or not police, mental health counselors, or rape treatment clinics were involved. Supportive responses to confiding and involvement of authorities were the external mediators. Finally, there were two Outcome variables. Negative effects was a composite score of initial, that is, immediately post-assault, psychological effects (e.g., heightened anxiety, fear, and sleeplessness) and lasting psychological effects (depression, fear, and relationship problems), lasting effects on women's sexual functioning (e.g., dislike for sexual acts perpetrated on them or disinterest in sex), and attitudes toward men (e.g., fear of men or the ability to select nonabusive partners). Adaptive lifestyle changes (e.g., changing locks on doors or taking a self-defense class) was the second Outcome variable.

These variables were selected because of their relationship to one another. They best captured aspects of attempted and completed sexual assault experiences of interest in this study.

Analyses

Measured or observed variable simultaneous path analysis models are used to analyze the data (e.g., Bentler & Newcomb, 1986). A quasi-longitudinal study design based upon retrospective assessments allowed us to test the relationship between circumstances related to sexual abuse with later outcomes. Although latent variables would have been preferred in the path models (e.g., Bentler, 1980; Newcomb & Bentler, 1988), because of their ability to control or separate measurement error from true-score variation, the sample size was too small ($n=55$) to yield stable estimates on multiple indicator factors (which would require almost tripling the number of variables included in the present path model). Univariate statistics for each of the individual variables are presented in Table 2.³ Given the apparent normality of the data, the maximum likelihood method was used to estimate parameters in the path model, and the EQS computer program was used (Bentler, 1989).

RESULTS

These analyses link traumatic circumstances (abuse incidents) to internal and external mediators, which in turn lead to various outcomes. Based upon the conceptual nature of the variable, 9 variables were grouped into one of these three domains (see Table 2): 4 variables represented the Cir-

Table 2
Summary of variable characteristics

<i>Domain/Variable</i>	<i>Mean</i>	<i>Range</i>	<i>Variance</i>	<i>Skew</i>	<i>Kurtosis</i>
<i>Characteristics of abuse</i>					
Age of most recent abuse	22.85	17-35	19.18	1.07	0.46
Severity of abuse	3.28	2-6	0.96	1.17	0.60
Maximum rapes per incident	1.02	0.2-2	0.32	0.82	-0.79
Proximity of perpetrator to victim	3.93	2-6	1.46	-0.35	-1.04
<i>Mediational process</i>					
Internal attributions/self-blame	1.67	1-2	0.22	-0.72	-1.51
Supportive response/confiding	8.33	3-12	4.97	-0.50	-0.93
Involvement of authorities	1.36	1-2	0.24	0.55	-1.73
<i>Outcomes</i>					
Negative effects	8.96	4-16	12.04	0.44	-0.89
Adaptive lifestyle changes	1.67	1-3	0.81	0.67	-1.46

cumstances of Abuse domain, 3 variables reflected the Mediators domain, and 2 variables accounted for the Outcome domain.

The three domains of variables were expected to influence each other unidirectionally. The Circumstances of Abuse variables influenced the mediator variables, which in turn affected the Outcome variables as depicted in Figure 1. It is also possible that some of the Circumstances of Abuse variables may directly influence the Outcome variables over-and-above the intervening effects of the mediator variables (this is depicted by the dashed line in Figure 1).

There was no a priori theory regarding how the within-domain variables should be structurally related. In order to operationalize and test this conceptual model, all variables within each domain were allowed to correlate freely (or the residuals if they were predicted variables). Each variable in the Circumstances of Abuse domain was initially allowed to predict each variable in the Mediator domain. Similarly, variables in the Mediator domain were allowed to predict the two variables in the Outcome domain. This model was tested against the correlations of all 9 variables as given in Table 3.

The initial model did not fully account for all of the covariation in the data ($p < .001$). Based upon selected Lagrangian Multiplier modification indices (Bentler & Chou, 1986), necessary paths were added between variables in the Circumstances of Abuse domain and variables in the Outcome domain, since this was the only area of the model that was not saturated with effects. Four such additional paths were necessary. The Wald test was

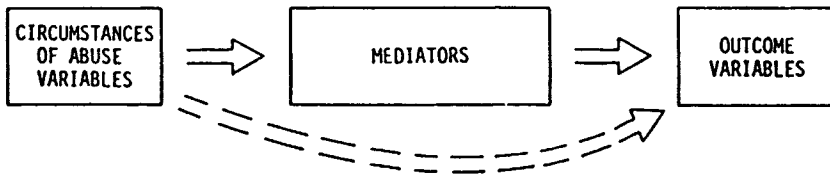


FIGURE 1. Path diagram of relationships between Circumstances of Abuse, Internal and External Mediators, and Outcome variables.

used for deleting parameters (Bentler & Chou, 1986), and paths or correlations that were not needed (nonsignificant) were removed. This approach of over-fitting and then deleting nonsignificant parameters was found by MacCallum (1986) to capture best the "true" model reflected in covariance structure models.

The resulting model fit the data well, $\chi^2(23, n=55)=13.28, p=.95$, Bentler and Bonett (1980) normed-fit-index=.86. Only significant paths and correlations were retained in this final model. Standardized parameter estimates for this final path model are depicted graphically in Figure 2. Covariances are correlations and residual variables are variances.

Three pairs of variables in the Circumstances of Abuse domain were significantly correlated and retained in the analyses. Only the residual of internal attributions/self-blame and involvement of authorities were significantly correlated in the Mediator domain. The residuals of the two variables in the Outcome domain were not significantly correlated ($p>.05$). Decomposition of direct, indirect, and total effects for all predicted variables for this final model are presented in Table 4.

More consistent internal attributions/self-blame for each assault incident was significantly predicted from women who were older at the time of their most recent abuse and greater severity of abuse (including multiple sexual assaults and physical force used in the incidents). A supportive response from someone told about the abuse and some action taken were also significantly predicted from less severe sexual assault. Involvement from authorities such as police or other professionals trained to deal with rape was not predicted reliably by any variable in the Circumstances of Abuse domain.

Negative short and long-term effects of abuse were significantly predicted from internal attributions/self-blame and more involvement from authorities from the Mediator domain, and greater severity of abuse, and more rapes per incident from the Circumstances of Abuse domain. Finally, adaptive lifestyle change was not reliably predicted from any of the mediators. It was, however, predicted from older age at most recent assault and more distant proximity of perpetrator to victim (abuse perpetrated away from home, by a stranger), both from the Circumstances of Abuse domain.

Table 3
Zero-order correlations between all variables

<i>Domain/Variable</i>	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>	<i>VIII</i>	<i>IX</i>
<i>Characteristics of Abuse</i>									
I Age of most recent abuse	1.00								
II Severity of abuse	.29	1.00							
III Maximum rapes per incident	.03	.04	1.00						
IV Proximity of perpetrator	.27	.36	-.03	1.00					
<i>Mediational Processes</i>									
V Internal attrition/self-blame	.47	.34	.13	.31	1.00				
VI Supportive response to confiding	-.17	-.45	-.01	-.06	-.34	1.00			
VII Involvement of authorities	.11	.02	.04	-.14	-.20	.15	1.00		
<i>Outcome</i>									
VIII Negative effects	.33	.41	.37	.21	.33	-.20	.22	1.00	
IX Adaptive lifestyle change	.16	-.04	-.03	-.38	.01	-.03	-.19	.05	1.00

Note: Any $r > .26$ is significant at the $p < .05$ level, two-tailed test (for a one-tailed test $r > .22$).

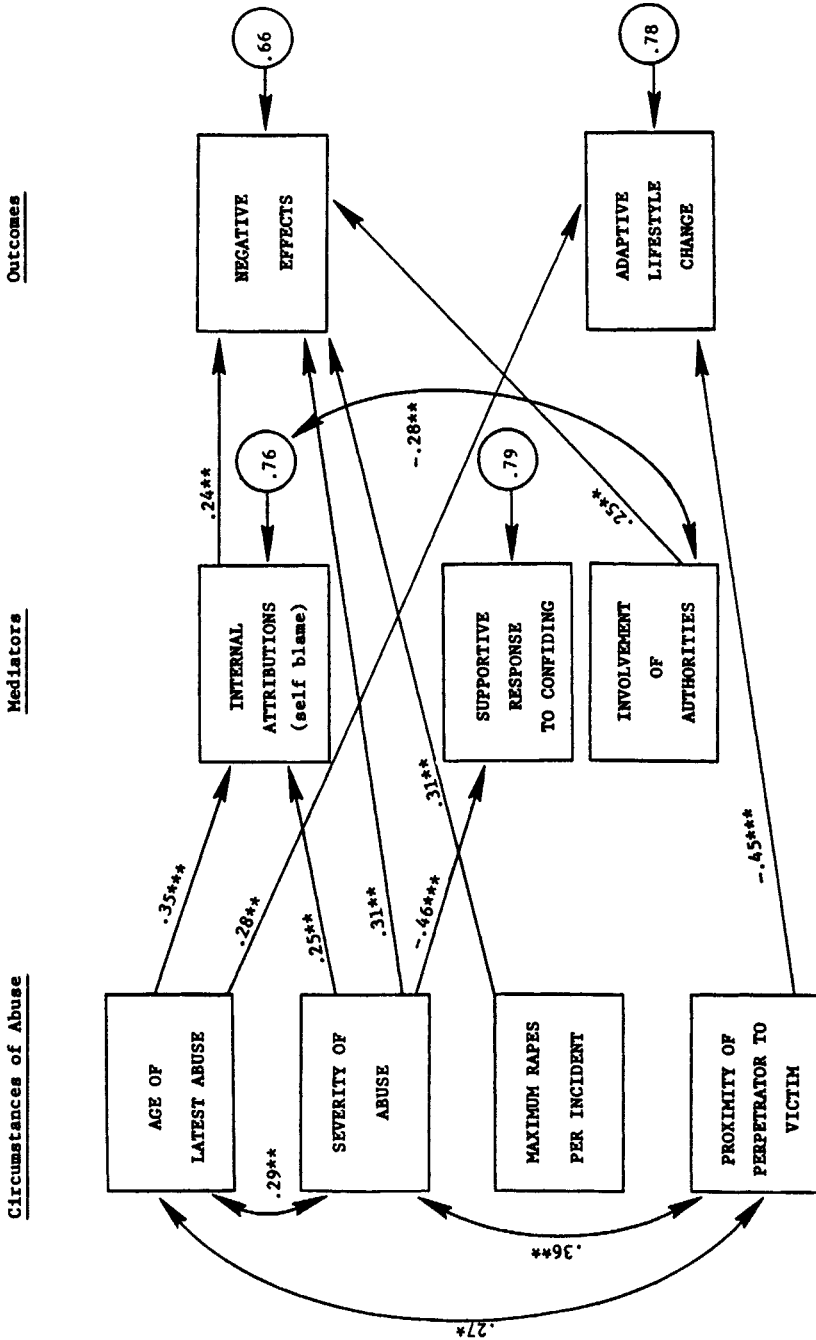


FIGURE 2. Path model of Circumstances of Abuse, Internal and External Mediators, and Outcome variables. Parameter estimates are standardized and residual are variances. Significance levels were determined by critical ratios ($*p < .05$; $**p < .01$; $***p < .001$).

Table 4
Decomposition of effects from the final path model

Predictors	<i>Dependent Variables</i>				
	<i>Internal Attributions</i>	<i>Supportive Response to Confiding</i>	<i>Involvement of Authorities</i>	<i>Negative Effects</i>	<i>Adaptive Lifestyle Change</i>
<i>Age of latest abuse</i>					
Direct	.35	.00	.00	.00	.28
Indirect	.00	.00	.00	.08	.00
Total	.35	.00	.00	.08	.28
<i>Severity of abuse</i>					
Direct	.25	-.46	.00	.31	.00
Indirect	.00	.00	.00	.06	.00
Total	.25	-.46	.00	.37	.00
<i>Maximum rapes per incident</i>					
Direct	.00	.00	.00	.31	.00
Indirect	.00	.00	.00	.00	.00
Total	.00	.00	.00	.31	.00
<i>Proximity of perpetrator to victim</i>					
Direct	.00	.00	.00	.00	-.45
Indirect	.00	.00	.00	.00	.00
Total	.00	.00	.00	.00	-.45
<i>Internal attributions</i>					
Direct	.00	.00	.00	.21	.00
Indirect	.00	.00	.00	.00	.00
Total	.00	.00	.00	.21	.00
<i>Supportive response to confiding</i>					
Direct	.00	.00	.00	.00	.00
Indirect	.00	.00	.00	.00	.00
Total	.00	.00	.00	.00	.00
<i>Involvement of authorities</i>					
Direct	.00	.00	.00	.25	.00
Indirect	.00	.00	.00	.00	.00
Total	.00	.00	.00	.25	.00

Fully 39% of the variance in negative effects and 22% of the variance in adaptive lifestyle changes were accounted for by variables in the Circumstances of Abuse and Mediator domains.

The effects depicted in Figure 2 represent direct influences. Indirect influences can also be inferred through a mediating variable. For instance, older age at most recent abuse has both a direct influence on survivors making no lifestyle changes and an indirect effect on negative effects via the mediating influence of more consistent internal attributions/self-blame for each assault occurring.

DISCUSSION AND IMPLICATIONS OF FINDINGS

This study represents a beginning effort to identify internal and external mediators of four traumatic aspects of multiple rape incidence and to assess their effects upon women's initial and lasting effects and behavioral change. These data are retrospective and the outcome indices are not assessed by standardized measures. However, the results reflect a community sample of women's perceptions of their experiences and some of the strategies used to cope with rape, not always identified in other clinical or community samples (Roth et al., 1988; Russell, 1983). Although our sample size was sufficiently large to test this small 9 variable model, replication with a larger sample is necessary to validate the paths and effects we have found. With a larger sample and multiple indicators for each critical construct, particularly when used as internal and external mediators, latent-variable models can confirm these results and help mitigate the difficulty of measurement error that plagues all types of survey research. In spite of the variability in samples used in rape research, similar findings of other studies were noted in these results (Cohen & Roth, 1987; Meyer & Taylor, 1986; Ruch & Chandler, 1983; Sales et al., 1984). Self-blame for each sexual assault, the number of repeated rapes per incident, and the severity of attempted and completed acts of rape (e.g., physical coercion) predicted negative effects on women's overall adjustment, as well as negative initial and lasting attitudes toward sex and intimacy. However, this study also offered important documentation that the involvement of police and other agencies such as emergency rooms and counseling centers can also negatively impact the effects of rape years after its occurrence. Additionally, women who consistently blame themselves after each assault and involvement of authorities were also found to mediate the effects of other traumatic circumstances of rape.

When women blame themselves for sexual assault having occurred, they can be affected differently than victims of other trauma, such as auto accident survivors (Bulman & Wortman, 1977). Whatever the immediate gain in sense of control may be offset by the long range consequences of self-blame on self-esteem (Koss & Burkhart, 1989). Attributions to victimization used in other traumatic circumstances, including "I should have known better," or "I should have seen it coming," only add to the trauma of sexual abuse by causing victims to feel even more responsible for the assault and powerless in intimate relationships.

Similar to previous findings (Ruch & Chandler, 1983) women in this study received little support for having been raped, even in the most severe circumstances, such as being beaten, having their lives threatened, or a weapon being used on them (Cohen & Roth, 1987). Indeed, 10 women told no one about the incidents until years later. This finding is, however, consistent with other rape research (Williams, 1984; Williams & Holmes, 1982). Additionally, as the severity of abuse increases, so does self-blame and the fear of not being believed as a "typical victim" (Williams, 1984).

The following describes the circumstance of a severe incident. The response she received when she disclosed her assault to someone known to her, as well as the police, is a good example of why victims are reluctant to disclose:

Respondent: On the advice of a girlfriend I let a man take me home from a party. We stopped at his apartment on some excuse. . . . He grabbed me, threw me on the bed—he had my girdle and panties off . . . and penetrated my body fast. I immediately started to fight. . . . He broke my cricoid cartilage [in my neck]. . . . [At that moment] I felt that my life was threatened and I stopped fighting. I didn't know where I was. I wandered the streets looking for a pay phone. A policeman asked me what I was doing. When I told [him] what had happened . . . [The police] dismissed it [and] when I asked for help [he] said [he] couldn't help me . . . He was going off duty and . . . would come back and take me home. He made a pass at me before he dropped me off.

Interviewer: Who did you tell?

Respondent: My girlfriend.

Interviewer: What did she say?

Respondent: See what men are like? That is all they want—you should get something out of it—money.

Interviewer: What effect did this incident have on you?

Respondent: I was very depressed, angry, resented men, [had] brief periods of angry promiscuity . . . took many showers and douches, changed [my] hairdo and wanted to change myself. I never go into parking lots, elevators or hallways. I became very militant and have a gun at home—no one will ever assault me again.

This vignette illustrates physical and psychological trauma, as well as the degree of nonsupport from a confidant and police that may have exacerbated negative effects of abuse on future psychological and sexual functioning, as well as distrust of those who might have been supportive. The seriousness of the incident appeared to result in the potentially supportive confidant who blamed the victim for the rape. It was as if nothing so terrible would have occurred if the victim had not contributed in some fashion. In other words, there is a reluctance to accept the idea that a rape victim is blameless. Violent crimes like rape generally leave members in society feeling insecure and vulnerable to victimization. It is sometimes both a relief and a comfort to believe that victims may have precipitated incidents of sexual abuse so that those at higher risk feel less helpless and vulnerable.

As illustrated in the vignette, it was disconcerting to note that supportive

agencies sometimes contributed to these women's difficulty in coping with rape. The involvement of police or other authorities was related to initial and lasting negative effects of adjustment to rape. On the average, the time lapse between the most recent abuse incident and the data collection (between 1980-1983) was 5½ years. Only 54% of the women reported the rape to the authorities, partly because at that time, many had negative expectations about the way in which their assault would be viewed. Today, the possible involvement of authorities might be perceived differently. According to the L.A. County Homicide Division,⁴ the standard procedure now begins with the choice of reporting a rape to a male or female officer. The victim is then assisted by the officer to the hospital to collect evidence and medical care. Counseling and referral information from rape crisis centers is also offered to the victim before she is escorted home. This formalized procedure, however, was initiated only 6 years ago. The rape victims' anticipation of poor treatment contributes to their failing to report their abuse (Feild, 1978). Negative experiences like those in the vignette often influence a woman's intentions to involve authorities in subsequent incidents. Consequently, the cycle of unreported rapes continues, even with changes in policy toward the treatment of rape victims.

Additionally, women who were relatively older when their most recent assault occurred and those who did not know their assailants tended to make lifestyle changes to protect themselves from further victimization (Ellis, 1983).

If the abuse was perpetrated by an unknown person, victims attempted more often to regain control over their lives. They made changes involving self-protection (e.g., buying a gun, extra locks on the door, not being out after dark, etc.). The more unexpected type of abuse perpetrated by a boyfriend or husband seemed to create more of a sense of powerlessness: life style changes were not as frequently made (Russell, 1983).

One of the most disturbing findings was that none of the internal or external mediators influenced lifestyle changes. Regardless of how blame was attributed for the incidents, the amount of support or to whom they disclosed, lifestyle changes were not affected. There are several interpretations of this finding. The nonsignificant relationship between lifestyle changes and cognitive mediators may be due to small sample size. Another interpretation might be that behavioral efforts to prevent revictimization and to regain feelings of control were influenced more by the specific circumstances of the rape experiences than by the mediators selected for this study. Other mediators should be examined in future research to assess their relationship to lifestyle changes after sexual assault. This study, however, represents a beginning attempt to examine factors that mediate the initial and lasting effects of rape and provides information about specific effects of sexual assault that should be routinely assessed in rape research.

Those at most risk for the pervasive effects of sexual assault appear to be relatively older women (aged 27-36) whose abuse was recent. They tended

to engage in the kind of self-blame that perpetuates the cycle of nondisclosure, especially if the perpetrator was known to them. These are not the women who are often described as most likely to be rape survivors (Koss & Burkhardt, 1989), possibly because the preponderance of research today includes young college women. This pattern of nondisclosure could be problematic for women who do not seek professional help to cope with rape, but instead use their families and friends as a sole means of emotional support. In this study, only five women received counseling for their rape symptoms. Such women may not receive information about the damaging effects of self-blame on their healing process. Similarly, family members may not understand the importance of their support and the avoidance of victim-blaming in the disclosure process. If women anticipate that they will be blamed, they may not disclose their abuse at all and instead may merge into the population of survivors who experience intimacy, relationship, and sexual problems with little understanding of their etiology.

We as professionals have to assume part of the responsibility for these victims remaining invisible, unless we continue to press for changes in societal attitudes and public sensitivity to support rape victims and their efforts to cope with this trauma, even if they do not seek professional help.

Although supportive networks have had a history of insensitivity for many, the message for today should be that they can and deserve to receive better treatment.

APPENDIX

Coding Procedures for 25 Variables Used Initially for Data Analysis Strategies

<i>I. Items with Categorical Responses</i>	<i>Coding Range</i>
1. Location of abuse ^a (3-point scale)	(1) public place (2) home of perpetrator (3) home of subject
2. Relationship of perpetrator to victim ^b (6-point scale)	(1) stranger (2) casual acquaintance (3) acquaintance (4) friend (5) relative/father (6) husband/boyfriend
3. Whom victim first told of abuse ^c (5-point scale)	(1) husband/boyfriend (2) family member (3) friend/co-worker (4) persons not in social network – includes police (5) no one
4. Short-term physical effects ^d (3-point scale)	(1) none (2) minor effects (3) major effects

- | | |
|---|--|
| 5. Short-term emotional effects ^d
(4-point scale) | (1) none
(2) awareness of and preoccupation with abuse
(3) negative feelings
(4) depression |
| 6. Short-term effects on sex life ^c
(2-point scale) | (1) none
(2) some |
| 7. Short-term effects on lifestyle ^c
(3-point scale) | (1) adaptive changes
(2) less adaptive changes
(3) none |
| 8. Action taken by person told ^b
(4-point scale) | (1) took some action
(2) comforted, provided emotional support
(3) no action taken
(4) respondent was blamed or reprimanded |
| 9. Lasting emotional effects ^c
(4-points scale) | (1) none
(2) minimal effects
(3) moderate effects
(4) severe effects |
| 10. Lasting effects on sex life ^c (3-point scale) | (1) adaptive changes
(2) less adaptive changes
(3) no changes |
| 11. Lifestyle changes ^d (3-point scale) | (1) adaptive changes
(2) less adaptive changes
(3) no changes |
| 12. Sources of community or personal support ^b (3-point scale) | (1) professional
(2) family, friends
(3) none |

II. Quantitative Variables for Whom the Most Extreme Response Was Selected for Multiple Incidents

Response of all incidents selected

- | | |
|--|--|
| 1. Age at which abuse occurred (latest abuse) | age of earliest – age of most recent abuse |
| 2. Number of perpetrators ^d (2-point scale) | one, two, or more |
| 3. Number of abuse incidents ^e
(3-point scale) | (1) attempted rape
(2) one rape
(3) two or more rapes |
| 4. Age of perpetrator ^f (4-point scale) | (1) teenager (19 or younger)
(2) young adult (20–24)
(3) adult (24–54)
(4) older person (55 or older) |

*III. Dichotomous Variables**Coding*

1. Ethnicity of perpetrator ^f (2-point scale)	same as victim – cross ethnic
2. Perpetrator drinking ^{gf} (2-point scale)	(1) no drinking (2) drinking in at least one incident
3. Victim drinking ^{gf} (2-point scale)	(1) no drinking (2) drinking in at least one incident
4. Involvement of agencies or police ^d (2-point scale)	(1) involved in at least one incident (2) not involved in any incidents
5. Attribution to victimization ^d (3-point scale)	(1) mostly internal (self-blame) (2) mixed (some internal and external incidents) (3) mostly external (attribution given to perpetrator, family, or environment)

*IV. Global Ratings on All Incidents Worst Effect Collected**Range of Codes*

1. Reason for not telling ^f (3-point scale)	(1) mostly internal (2) mixed (3) mostly external
2. Supportiveness of person told ^b (4-point scale)	(1) very supportive responses (2) moderate support, combination of somewhat supportiveness, neutral response or respondent didn't know (3) mixed or neutral combination of all neutrals, some supportive and some nonsupportive or victim didn't tell (4) nonsupport; all responses nonsupport
3. Effects on attitudes toward men ^c (4-point scale)	(1) no effects (2) mild, some effects but not lasting (3) moderate effects (4) severe effects
4. Degree of physical force used ^e (2-point scale)	None – some

^aUsed in composite score, Proximity of Abuse.^bUsed in composite score, Supportive Response to Confiding.^cUsed in composite score, Negative Effects.^dUsed as a single item.^eUsed in composite score, Severity of Abuse.^fDeleted from further analysis because no association with other variables.**NOTES**

1. The term "African-American" refers to women of African descent whose parentage also includes a variety of other ethnic and racial groups found in America. Caucasian women

- additionally included women of Jewish heritage. These women spent at least 6 of their first 12 years of their childhood in the United States.
2. The 27% refusal rate excludes 335 women who terminated telephone contact before information regarding their demographic characteristics could be obtained. The estimated rate of refusal, including those who terminated phone contact before their eligibility could be assessed, as well as those who did not answer when called but who might have been eligible, was 33%. However, if the 335 women who terminated contact were considered, the refusal rate would increase to 45%.
 3. Univariate and multivariate estimates of distribution indicated that these data were essentially normal and hence suitable for path analysis. Inspection of these statistics reveals that the data are normally distributed in terms of both skew and kurtosis. The largest kurtosis was on involvement of authorities (-1.73) and the highest skew was on severity of abuse (1.17), which are not very large. Confirming this conclusion regarding the normality of the data, the normalized multivariate kurtosis estimate was found to be fairly normal (-2.26).
 4. Telephone interview with Detectives Ron Phelps and Steve Laird, Rape Special Section of Robbery and Homicide L.A. County Police.

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