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THE SOCIAL PSYCHOLOGICAL EFFECTS OF VICTIMIZATION

FINAL REPORT

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ABSTRACT

Increasing awareness of the potentially devastating effects of crime led to this analysis of social and psychological consequences to victimization. The study is based on the responses of 258 crime victims who participated in an evaluation of crisis intervention services in Tucson, Arizona in 1983. Victims of rape, domestic assault, other assaults, burglary, and robbery were interviewed twice -- once about a month after victimization and again four to six months later -- about the social, psychological, financial, and physical outcomes of victimization.

Within a month of the crime, victims showed high levels of distress on all five measures used. They reported experiencing fear, anxiety, stress, dismay, and social adjustment problems. Distress was higher among victims of more severe or intrusive crimes and was higher among women than men. Four to six months later, symptoms of distress, other than fear, had abated considerably. Multivariate analysis indicated that distress was more pronounced among victims who had experienced higher levels of stress in the year prior to victimization. Thus, victims most likely to suffer social-psychological distress are those subject to prior stress and more severe forms of victimization.

CHAPTER I
BACKGROUND TO THE STUDY

Introduction

During the last decade, we have witnessed a growing awareness of the psychological, social, financial, and physical costs borne by victims of crime. Researchers, clinicians and criminal justice officials are increasingly cognizant that many individuals endure a wide range of problems as a direct and indirect result of the victimization, problems ranging in intensity from minor nuisances to major turmoils.

Once labeled as the "forgotten" persons in the criminal justice system (Ash, 1972; MacDonald, 1976), victims are emerging as individuals who deserve and require more careful consideration from the criminal justice system and mental health profession. The federal government has committed considerable resources to improve the plight of victims by supporting programs to aid those victimized by crime. In addition, efforts have been (and are being) expended to promote research which will increase understanding of the problems suffered by victims, their need for services, their satisfaction with services received, their unrequited needs for services, and their treatment by criminal justice officials. As evidenced by the literature review which follows, progress is being made, and we are learning more about the consequences of victimization. However, much remains to be accomplished before practitioners and policymakers can tailor and target programs to help those most in need and most vulnerable following victimization. Our report focuses on this issue.

This report is a secondary analysis of our evaluation of the Pima County Victim/Witness Advocate Program (readers interested in the evaluation results are referred to An Evaluation of Victim Services by Smith, Cook & Harrell, 1985). Through a sequence of two interviews with over 250 victims of domestic assault, sexual assault, non-sexual assault, robbery, and burglary, we gathered information with which to assess the effects of victim assistance. This secondary analysis uses the abundant information provided by these victims to examine the social and psychological consequences of victimization during the weeks and months following victimization. Because the same was selected to represent three service categories in one location, it is not representative of the general victim population. However, the service category does not appear to be related to the psychological

and social consequences of victimization, nor have we any reason to suspect victims in Tucson differ from victims elsewhere. Thus, the results are likely to reflect the experiences of victims across the country. The report is intended to apply this information to expanding our understanding of the factors that influence the level of distress a victim experiences, and identifying the victims that may be in greatest need of assistance. We focused on the psychological needs of victims because we found, as have many other researchers, that the psychological turmoil inflicted upon victims tends to be intense and to endure long after the victimization for the vast majority of individuals, often overshadowing the more immediate physical and financial costs of victimization. We begin this chapter with a Review of the Literature, followed by our Conceptual Framework, and a Methodological Overview.

Review of the Literature

The pain, loss, and damage suffered by victims may assume many forms and result in a variety of physical, financial, social, and psychological problems (Knudten, et al., 1976; Smith; 1981, Symonds, 1976; Davis, Russell & Kunreuther, 1980). Physical problems may include the immediate pain inflicted during the incident as well as long-term disabilities and discomfort. Financial problems may result from the burden of replacing stolen goods, repairing damaged items, paying medical bills as well as the indirect costs of losing time from work while recovering from injuries or appearing in court. However, these damages are only part of the damages incurred by victims. An even more significant cost may be the potentially devastating psychological distress caused by victimization.

There is a growing body of evidence documenting the psychological damage inflicted on victims. The feelings of fear, shock, anger, depression, and disorientation among rape victims have been well-established as have problems in social adjustment, sexual dysfunction, and severe stress reactions (McCahill, Meyer & Fischman, 1979; Sales, Baum & Shore, 1984; Kilpatrick, Veronen & Resick, 1979; Burgess & Holmstrom, 1974b, 1979; Ruch & Chandler, 1983; Ruch, Chandler & Harter, 1980). More recently, studies have investigated the distress of other types of crime victims. Persons victimized by intimates and friends, particularly the spouse, exhibit clear symptoms of psychological distress (Walker, 1979; Moore, 1979; Gelles, 1979). One study of non-stranger violence found that fear was a major problem for over one-half of the victims assaulted by their spouses or lovers, fear

which leads to depression and disrupted sleeping, eating, and working routines (Smith, 1981). Victims of robbery and burglary also experience painful, negative reaction to victims, reactions which may subsist over a considerable period of time (Bourque, Brumback, Krug & Richardson, 1978; Waller & Okihiro, 1978).

The intensity of psychological distress among victims may range from mild upset to severe trauma. In the latter case, the level of emotional upset, nervousness, and fear may become overwhelming, disrupting the victim's ability to function normally (Skogan & Klecka, 1977; Knudten, et al., 1976; Zeigenhagen, 1974; Smith, 1981). If so, the victim experiences a personal crisis -- "a subjective reaction to a stressful life experience, one so affecting the individual that the ability to cope or function may be seriously compromised" (Bard & Ellison, 1974; p. 2). Based on research of a wide variety of crisis-provoking situations, including war, abortion, death, divorce, criminal victimization, and so on, researchers have attempted to classify the stages in crisis (see Lindemann, 1944; Bassuk, 1980; Bard & Sangrey, 1979). While the type and number of stages vary, in general, there is agreement that crisis involves the progression of the victim from an acute stage through a less intense stage and finally to some level of resolution. In one application of crisis theory, Sutherland and Scherl (1970) describe three distinct phases in the responses of rape victims: initial shock, apparent adjustment, and resolution. The immediate shock is characterized by disorientation, disbelief, and extreme trauma. It is followed by a period of apparent adjustment during which victims usually deny, rationalize, or suppress their shock. During the third phase, resolution and integration, victims often express depression and the need to talk with others as they begin the process of adjustment. The anger, depression, self-blame, hostility, and rage expressed in this phase has been well documented (see Kilpatrick, Resick & Veronen, 1981; Ellis, 1980). A similar model was applied by Bard and Sangrey (1979) to stages of response to criminal victimization: impact, recoil, and reorganization.

During the first several months following a sexual assault, there is mounting empirical evidence of an intense post-crime crisis which is followed by a decline in psychological distress (Kilpatrick, Resick & Veronen, 1981; Ellis, Atkeson & Calhoun, 1981; Smith, Cook & Harrell, 1985). However, this decline in levels of trauma should not be interpreted as evidence of a complete and spontaneous recovery from the crime. On the contrary, psychological distress among victims often remains above normal for some time. Longer-term effects of rape include higher

levels of depression and lower levels of pleasure (Ellis, Atkeson & Calhoun, 1981) and higher levels of anxiety, fear, suspicion, and confusion (Kilpatrick, Resick & Veronen, 1981). Although the victim experiences some recovery and stabilization following the intense post-rape crisis, a "core of distress" is apparent for a much longer time. Similarly, researchers report that victims of other crimes, such as burglary and robbery, reacted to their loss even a year after victimization (Knudten, et al., 1976; Waller & Okihiro, 1978; Bourque, Brumback, Krug & Richardson, 1978). Given the personal and diverse reactions of individuals to crisis, some have argued that "stage" theories do not adequately portray crisis reactions (Silver & Wortman, 1980).

Research on the consequences of rape indicates that the nature and violence of the assault can influence the level of distress experienced by the victim (Ruch & Chandler, 1983; Ellis, Atkeson & Calhoun, 1981; Burgess & Holmstrom, 1974a,b). The use of weapons, person injury, and/or known assailants may intensify victim trauma (Peters, 1977; McCahill, et al., 1979; Ruch & Chandler, 1983; Katz & Mazur, 1979). However, the severity and type of assault accounts for a relatively small portion of the variance in post-assault distress among rape victims (Ruch & Chandler, 1983). Similarly, the differences in type of offense (violent versus property crime, assault versus non-assault) are relatively modest in size and apparently short-term (Friedman, et al., 1982).

The crisis response in victims may be precipitated by the violation of the self that occurs in the criminal incident (Bard & Ellison, 1974). Bard and Ellison (1974) placed four crimes -- rape, robbery with assault, armed robbery, and burglary -- on a continuum of intrusiveness and hypothesized that crisis is induced by the level of personal violation of the crime. When a burglar enters a home, he intrudes upon personal territory, a symbolic extension of the self. In robbery cases, the level of intrusion is heightened by the additional threat of physical harm and the personal, immediate context of property theft, while in assault cases, the loss of autonomy and independence, coupled with physical pain, may produce even more intense feelings of personal violation. Obviously, rape with the violation of physical person as well as domination represents an extremely high level of intrusiveness.

There is some evidence to support the hypothesis that the level of victim distress is a function of the intrusiveness of the crime. Friedman, et al. (1982), found a larger number of problems among victims of violent crimes immediately after

the offense than among victims of property offenses, although differences in problems between victims of violent and nonviolent crimes were no longer significant four months later. However, over a longer period of time, victims of nonviolent crimes may experience severe negative effects that tend to persist (Bourque, Brumback, Krug & Richardson, 1978). Knudten and associates (1976) found problems of income and property loss were even more likely than physical problems to be viewed as serious a year after the crime.

Although post-crime psychological distress and the process of adjustment are clearly related to the severity of the crime, it now appears that several other factors may influence the victim's response. For example, the victim's pre-existing psychological status and social support network may influence both immediate and long-term responses. In addition, post-crime events, contacts with the court, with victim services, and with social supporters, can have impact on the adjustment processes. The following paragraphs summarize briefly some of the research findings on the factors related to the psychological state of victims.

Prior victimization, stressful life events, and pre-existing mental health problems may leave some victims more vulnerable than others to experience a crisis following victimization (Burgess & Holmstrom, 1974a; Ruch, Chandler & Harter, 1980; Ruch & Chandler, 1983). Ruch and Chandler (1983) reported that pre-existing problems, such as stressful events in the year before the crime and prior sexual assault, accounted for almost 20% of the variance in level of immediate post-range trauma. Pre-existing problems associated with victim distress include drug use, alcoholism, psychosis, neurotic and developmental problems, and life stress (Symonds, 1980; Burgess & Holmstrom, 1979; Ruch & Chandler, 1983). Ruch, Chandler, and Harter (1980) found a curvilinear relationship between life stress and immediate post-rape trauma, which indicated that women with very low or very high stress were more vulnerable to emotional trauma than those who had experienced some stress. They speculated that those who had experienced a moderate level of stress had learned coping behaviors, unlike those who had not experienced any stress or those who had exhausted their supply while dealing with a large number of stresses.

The existence of sources of social support among the victim's family, friends, and co-workers may provide victims with needed resources with which to cope with their trauma. The mental health literature indicates that social support is correlated with overall psychological health (Andrews, Tennant, Hewson & Vaillant,

1978; Williams, Ware & Donald, 1981; Lin, Ensel, Simeone & Kuo, 1979; Dean & Lin, 1977; Walker, MacBride & Vachon, 1977). However, evidence that social supports act to mediate or influence the effects of stress is ambivalent and plagued by methodological problems (see Thoits, 1982). Differentiating between the effects of relationships at the time of the crime and the effect of helpers after the crime is crucial in understanding what role social support can play during the adjustment phase (Sales, Baum & Shore, 1984). Although pre-existing sources of social support are correlated with lower levels of immediate post-rape trauma (Ruch & Chandler, 1983), the findings on the impact of post-crime social support are mixed (Bard & Sangrey, 1980; McCahill, Meyer & Fischman, 1979; Sales, Baum & Shore, 1984; Friedman, et al., 1982). Further clarification is required to understand the linkages between social support and critical variables such as crime type and stress level. In addition, careful attention is required to ensure appropriate operationalization of the concept and to guarantee measurement of potentially important dimensions of social support networks such as size, intimacy, and homogeneity (Walker, MacBride & Vachon, 1977).

Service organizations are frequently available to help victims with their problems, providing an array of services including counseling, legal aid, referral, financial, and practical assistance. Innovations such as on-site crisis intervention and special services such as rape crisis intervention have been developed for traumatized victims. While support for victim services is generally widespread among victims and law enforcement officials, the psychological status of victims appears unrelated to program participation (Smith, Cook & Harrell, 1985). Indeed, victims may not turn to service organizations for emotional support and appear to prefer, instead, to rely on their informal networks of support (Friedman, et al., 1982). However, in some cases, especially those in which the victim has experienced serious trauma (Burgess & Holmstrom, 1979; Bard & Sangrey, 1979), clinical intervention can prove helpful.

Conceptual Framework

The conceptual framework guiding this study (shown in Exhibit I) reflects the findings of victim research and mental health literature on factors related to post-crime psychological distress and proposes an approach of studying among the predictors of victim distress. The factors available for inclusion in this secondary analysis are predisposing variables, crime-related variables, situational variables, and outcome measures captured in the evaluation data. Predispos-

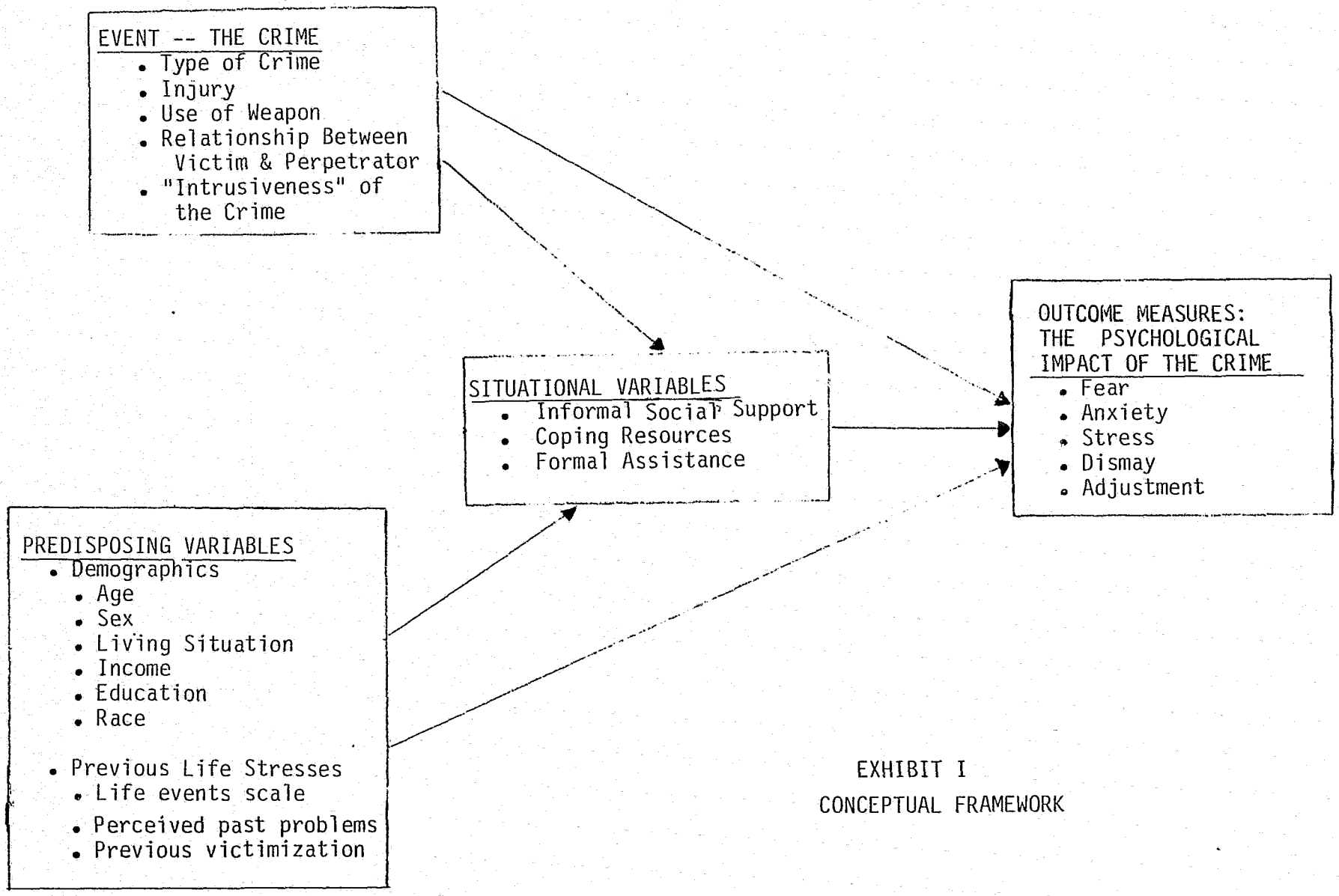

EXHIBIT I

CONCEPTUAL FRAMEWORK

ing variables consist of the victim's demographics (age, sex, living situation, income, education, and race) and the victim's previous life stresses (based on the life events scale, the individual's perceived past problems, and previous victimization). Variables associated with the crime include the type of crime, injury to the victim, use of a weapon, the relationship between the victim and perpetrator, and the intrusiveness of the crime. Situational variables are the victim's informal social support network, the individual's coping resources, and the formal assistance available to the victim. Finally, psychological impact measures include the victim's level of fear, anxiety, stress, dismay, and social adjustment. These variables, while hardly inclusive of all possible determinants of victim response, have been linked in the research to differential outcomes of victimization.

The conceptual framework presumes that variables associated with the crime can directly affect the psychological impact of the crime or indirectly affect the psychological impact through situational variables. It also posits a direct relationship between predisposing variables and psychological impact as well as an indirect impact of predisposing variables on psychological distress through situational variables. There may also be a correlation between predisposing variables and the crime itself. There is also the possibility that situational variables directly influence the outcome.

The Data Collection

The data were collected from victims of rape, domestic assault, non-sexual assault, robbery, and burglary, interviewed during the course of an evaluation of crisis intervention services in Tucson, Arizona (Smith, Cook & Harrell, 1985). The quasi-experimental plan of the evaluation called for a comparison of three groups: victims who received crisis services at the time of victimization, those who received victim assistance services at a later time, and those who received no victim assistance services. Assignment to group was not random; all victims receiving crisis services were included and matched with equal numbers from the other two groups on the basis of the types of crime. That is, each time crisis intervention services were provided to a victim, that victim was included in the sample. In addition, a victim from the same crime category who received delayed victim assistance was selected from the records of the VAS program, and a victim of the same crime category who received no victim assistance was selected from police records. Since the police officers were the ones who called for the crisis service,

they selected the treatment victims. The other victims were matched by crime type to the police sample. As a result of this design, approximately the same number of persons from each of the treatment groups are included for each type of crime. Although this non-random process could result in a larger than normal portion of severely traumatized victims, the evaluation found no differences on psychological distress that could be attributed to treatment group. Table A4 in Appendix A shows the mean level of distress by treatment groups in each crime category.

Within crime categories, there were no significant differences among the treatment groups on the basis of marital status, household composition, income, education, or presence of children. However, the crisis service group contained more women than men. The typical victim was white (76%), female (81%), between 20 and 40 years old, earning less than $15,000 per year. A more complete description and the characteristics of the sample is found in Appendix A.

Victims were interviewed twice. The first interview, which averaged between one and one-half hours, was conducted in the victim's home. Although most victims were interviewed within a month of the crime (70%), a few were interviewed more than two months later (15%). The second interview, which averaged 30 to 45 minutes, was conducted by telephone four to six months after the first interview. Of the 323 victims interviewed initially, repeated calls enabled us to recontact 258 individuals, which represents a retention rate of 79%. Most victims were willing, and some were eager, to share their experiences with us. The vast majority of the attrition resulted from changes in address. Due to our interest in examining the short and longer term effects of victimization, we include in this report only those victims responding to both interviews. Any loss of sample in a longitudinal study represents a potential source of bias because the most traumatized respondents (or perhaps the least) may tend to drop out. However, our analysis indicates that the retained sample closely resembles the original sample (See Appendix A).

The Variables

The comprehensive interview included: 1) items and scales designed to measure psychological stress; 2) victims' behavioral reactions; 3) effects on family, social life, and finances; 4) perceptions of assistance received from the police, family, friends, co-workers, and victim assistance services. In addition, back-

ground data included sociodemographic descriptions and information on prior life stress and victimization.

Modified versions of standardized scales and scales developed for this research were used to measure psychological distress. This approach was adopted following a thorough review of available distress scales. Most were developed for use with clinical populations. As a result, they tended to be too lengthy for inclusion in a relatively brief interview designed to cover a variety of topics. They also tended to include many items we thought unlikely to relate to the victimization experience, e.g., "fear of animal tissues." Five scales of psychological distress were used to measure feelings of fear, anxiety, stress, and dismay, as well as social adjustment problems.

- Fear. The fear scale consists of 12 items from the 120-item Modified Fear Survey III (Veronen & Kilpatrick, 1980). The items were selected from the larger group on the basis of their apparent relevance to aspects of the victimization experience. For example, respondents were asked whether they are disturbed by potentially frightening situations or things such as guns, violence on T.V., strangers, etc. A four-point scale was used to evaluate the level of fear where 1 = not at all, 2 = a little, 3 = a fair amount, and 4 = very much so; the responses were averaged across items.

- Anxiety. The State portion of the State-Trait Anxiety Inventory (Spielberger, Gorsuch & Lushene, 1970) was modified in three ways for use in the interview. One of the 19 items, judged to be awkward and lengthy, was deleted, leaving 18 items. The frame of reference was shifted from "how are you feeling 'at this moment'" to "how have you felt 'since the crime or incident'". The shift to a temporal reference of "since the crime" was intended to improve the validity of the measure as one reflecting crime-related anxiety. However, this may make comparisons to existing norms less appropriate. The wording of the two middle response categories was changed: "a little" replaced "somewhat"; "a fair amount" replaced "moderately so." This change provided a consistent set of responses across scales (1 to 4). The anxiety score was the average of the items answered.

- Stress. The stress scale consisted of 9 items that focus on the physical manifestations of tension such as headaches, feeling faint or dizzy, pains in the chest or heart, etc. Again, the scale score was the average of the responses (coded 1 to 4) to these items.

- Dismay. The dismay scale consisted of 8 items designed to reflect feelings of unhappiness among victims. It should not be construed as an indication of serious depression. Victims are asked if they have felt sad, angry, dissatisfied, or guilty since the crime. The scale score is the average of the items (coded 1 to 4).

- Social Adjustment. The victim's ability to return to his or her normal daily activities is measured by the average score (1 to 4) on 6 items. Victims are asked whether they are cutting down on social activities or cutting themselves off from friends. The intent was to measure behavioral aspects of post-crime distress.

The scales were constructed by carefully selecting items related to specific psychological constructs and then subjecting them to tests for internal consistency. All scales exhibited good reliability with Cronbach's alphas of .69 or better. See Appendix B for a more complete description of the scales.

Variables used to measure victim stress include the intrusiveness of the crime, the severity of the offense, the number of stressful life events in the year before the crime, the existence of serious problems in the previous year, and prior violent victimization.

- Intrusiveness of the Crime. Following the hypothesis of Bard and Ellison (1974), the types of crimes were ranked on a continuum from those with the highest level of personal violation to those with a lesser degree of violation. The following rankings were assigned: rape=4, domestic assault=3, other assault=2, and robbery or burglary=1. In some analyses, the scale ranged from 5 (rape) to 1, treating robbery as 2 and burglary as 1.

- Threat. Elements of the victimization experience believed to increase the level of threat for most types of crimes were physical injury, use of a weapon, and victimization by a non-stranger. A single indicator of threat was created by adding a point for each of these reported by a particular victim. Scores ranged from 0 to 3.

- Stressful Life Events. To evaluate the amount of stress the victim experienced in the year prior to victimization, 7 items were selected from the Holmes-Rahe Life Stress Scale. These items all reflected specific negative events: death of a spouse, a major illness, divorce, separation, death of a relative, death of a friend, breaking up with boy/girlfriend. The total number reported by the victim was used as the level of stress measure.

- Past-Year Problems. A second indicator of the level of stress in the prior year was included to reflect problems other than the seven specific events in the preceding scale. Victims were asked how things had gone in the past year in four areas: financially, physically, socially, and emotionally. Responses ranged from 1=very well to 5=very badly. For each area in which the victim said things had gone 4=not very well or 5=very badly, a point was added to the score on this measure. The resulting scale had values 0 to 4, which indicated the level of past year stress perceived by the victim.

- Informal Social Support. Respondents were asked whether they received help from family members, friends, or coworkers after telling

them about the crime. One point was added to the score for each source of help reported (range of 0 to 3).

- Victim Assistance Services. Respondents were asked about the type of services provided by crisis intervention or other programs. Choices included transportation, legal aid, referral services, advice, listening, and medical advice. One point was added for each service received.

Because this analysis was based on data collected for another purpose, some of these measures are less than ideal indicators of the construct in question. For example, social support may depend on the quality, amount, and type of assistance as well as the number of caregivers. The analysis uses the information available with the usual understanding that if constructs were measured without error (or with less error), the results might differ. The following chapters draw on the model presented, using these variables to analyze the social/psychological effects of victimization.

CHAPTER II
VICTIMIZATION BY TYPE OF CRIME

Individuals experience a variety of damages following victimization, depending, in part, on the type of crime inflicted on them. Some consequences are fairly obvious, given the type of crime. For example, assault victims are especially vulnerable to physical difficulties while robbery and burglary victims are most immediately susceptible to financial burdens. But, beyond these rather straightforward observations, we are learning that many individuals of all types of crimes endure psychological problems which extend beyond these more concrete losses. Indeed, shared psychological distresses among all victims appear to outweigh the more obvious different problems endured by victims of particular types of crime. This chapter examines the symptoms of psychological distress of victims of rape, domestic assault, other assault, robbery and burglary. The analysis is designed to examine the intensity and type of distress experienced by victims of various types of crimes and to explore how the symptoms are manifested during the weeks and months following the crime.

The assessment of psychological distress is based on symptoms of fear, anxiety, stress, dismay, and social adjustment problems reported by victims. Scales designed to measure these symptoms were administered to victims about a month after the crime and again four to six months later. The study methodology is described in the preceding chapter.

Results

When interviewed about a month after the attack, victims of sexual assault scored high on all five indicators of psychological distress (Table 1). Anxiety was especially high at the time of the initial interview, averaging 3.2. This indicates average feelings of anxiety somewhere between "a fair amount" (3.0) and "very much so" (4.0). In comparison, the average item score of female college students on the STAI (which our anxiety scale was based upon) was 1.75, and the average score of neuropsychiatric patients diagnosed as suffering from an "anxiety reaction" was 2.45.* By the time of the second interview, rape victims reported

*Although our anxiety scale was a modified version of the STAI, the changes from the original were not major: one item was deleted (because it was long and awkward); the frame of reference was the time since the crime or incident (rather than simply "at

(Continued)

Table 1
Psychological Distress
About a Month After the Crime and
About Six Months Later

SEXUAL ASSAULT VICTIMS (n=45)

	About a Month After Crime	About Six Months Later	Difference†
Fear	2.6	2.7	0.0
Anxiety	3.2	2.1	-1.1***
Stress	2.3	1.4	-0.9***
Dismay	2.7	1.9	-0.7***
Adjust	2.6	1.9	-0.7***

***p <.001

† may differ by 0.1 due to rounding

Table 2
Psychological Distress
About a Month After the Crime and
About Six Months Later

DOMESTIC ASSAULT VICTIMS (n=61)

	About a Month After Crime	About Six Months Later	Difference†
Fear	2.2	2.2	-0.1
Anxiety	3.0	2.0	-1.0***
Stress	2.3	1.4	-0.9***
Dismay	2.5	1.8	-0.7***
Adjust	2.0	1.6	-0.5***

***p <.001

† may differ by 0.1 due to rounding

considerable improvement in almost all symptoms. A significant decline had occurred in every area of distress except fear. Fear levels remained virtually unchanged (indeed, increased by a minimal fraction), while anxiety, stress, dismay, and problems in social adjustment showed improvement.

Domestic assault victims show a similar pattern of responses to those of sexual assault victims (Table 2). Again, anxiety is the most severe symptom at the time of the first interview and again, significant improvement is reported in all symptoms of distress except fear. Fear remains unchanged, while anxiety, stress, dismay, and social adjustment problems decline.

The pattern appears with remarkable consistency for the victims of the other three types of crime (Tables 3, 4 and 5). Victims of nonsexual assault, robbery, and burglary exhibited the same general pattern both in terms of relative severity of symptoms during the month following victimization and their improvement in symptoms during the next four to six months.

Despite the consistency in the pattern of psychological responses among victims of various types of crimes, some differences can be observed. Compared to other victims, domestic assault victims show a relatively low level of social adjustment problems as do robbery victims. The difference in overall level of psychological distress among victims of various types of crimes is most noticeable at the first interview a month after the crime. Sexual assault victims exhibited higher levels of fear, anxiety, stress, dismay, and problems in social adjustment than victims of other crimes. At a lower level, domestic assault and other assault victims reported fewer symptoms, while burglary and robbery victims reported even fewer.

The differences in levels of distress among victims of various crimes prompted a test of the Bard-Ellison hypothesis that psychological distress is a function of the intrusivenss or personal violation of the crime. As described in the preceding Chapter, the hypothesis states that crimes can be ranked in terms of their intrusiveness. The level of personal violation varies from a symbolic threat to

(Continued)
this moment"); and the middle categories of the four-point scale were changed to "a little" and "a fair amount" (rather than "somewhat" and "moderately so"). Thus, although the comparison of the scores with STAI norms should be viewed with some caution, we believe it to be valid and informative.

Table 3
Psychological Distress
About a Month After the Crime and
About Six Months Later

ASSAULT VICTIMS (n=58)

	About a Month After Crime	About Six Months Later	Difference†
Fear	2.3	2.2	-0.1
Anxiety	2.9	1.9	-0.9***
Stress	2.0	1.3	-0.7***
Dismay	2.3	1.8	-0.5***
Adjust	2.2	1.6	-0.6***

***p<.001

† may differ by 0.1 due to rounding

Table 4
Psychological Distress
About a Month After the Crime and
About Six Months Later

ROBBERY VICTIMS (n=34)

	About a Month After Crime	About Six Months Later	Difference†
Fear	2.0	1.9	-0.1
Anxiety	2.6	1.8	-0.8***
Stress	1.9	1.2	-0.7***
Dismay	1.9	1.5	-0.3***
Adjust	1.6	1.4	-0.2

***p<.001

† may differ by 0.1 due to rounding

Table 5
Psychological Distress
About a Month After the Crime and
About Six Months Later

BURGLARY VICTIMS (n=37)

	About a Month After Crime	About Six Months Later	Difference[†]
Fear	2.0	2.0	0.0
Anxiety	2.8	2.0	-0.8***
Stress	1.7	1.3	-0.5***
Dismay	2.1	1.8	-0.4***
Adjust	2.1	1.3	-0.8***

***$p<.001$

[†]may differ by 0.1 due to rounding

autonomy (in burglary cases) to physical domination and violation (in rape cases) to ultimate self-destruction (in homicide cases).

The significance of the personal violation in determining victim psychological distress is evaluated in two ways. First, analysis of variance (F-test) is used to test the hypothesis that psychological distress scale means vary significantly by the type of victimization. This test makes no assumptions about which crimes are the most distressing, but simply asks whether different types of victimization produce different levels of distress. Next, the Bard-Ellison hypothesis that the level of distress is a function of the intrusiveness of the crime is tested by treating the differences in type of victimization on a scale of 5 (rape) to 1 (burglary) and examining the significance of the Pearson Product moment correlation coefficient (r) relating the scale to the distress scales.

Tables 6 and 7 show the results of these tests. Two weeks to one month after the crime, there are significant differences in the levels of all distress scales across the types of victimization. However, only fear is related in a linear fashion to the level of intrusiveness measured on the five-point scale. As a visual examination of the means illustrates, the significance is due largely to the very high level of fear among victims of sexual assault. Generally, the intensity of the distress symptoms declines monotonically across the first four types of crimes from rape to domestic assault, to other assault to robbery. However, burglary victims show slightly higher levels of anxiety, dismay, and social adjustment than robbery, reversing the pattern of decline across crimes.

Four to six months later, at the time of the second interview, fear again is related both in a linear and nonlinear fashion to the intrusiveness of the crime, as are social adjustment problems (Table 7). Again, burglary appears in several instances to be the exception in the gradual decline in psychological distress symptoms across categories.

A careful reading of the hypothesis set forth in Bard and Ellison (1974) suggests, however, that the crucial distinction in the level of personal violation may be whether the victimization involves the symbolic loss of autonomy or actual physical harm or domination. That is, rape, domestic assault, and other assaults all involve loss of physical integrity and actual harm, while robbery often does not, and burglary almost always does not. Thus, on this continuum, robbery and burglary may present different, but equally intrusive, threats. In robbery, the

Table 6
Psychological Distress Reported by Victims by Type of Victimization About One Month After the Crime: Burglary and Robbery Separate

	Rape (n=45)	Domestic Assault (n=61)	Other Assault (n=58)	Robbery (n=34)	Burglary (n=37)	Significance of Test Statistic *	**
Fear	2.6	2.2	2.3	2.0	2.0	p<.001	p<.01
Anxiety	3.2	3.0	2.9	2.6	2.8	p<.001	ns
Stress	2.3	2.3	2.0	1.9	1.7	p<.001	ns
Dismay	2.7	2.5	2.3	1.9	2.1	p<.001	ns
Adjust	2.6	2.0	2.2	1.6	2.1	p<.001	ns

Table 7
Psychological Distress Among Victims by Type of Victimization About Six Months After the Initial Interview: Burglary and Robbery Separate

	Rape (n=45)	Domestic Assault (n=61)	Other Assault (n=58)	Robbery (n=34)	Burglary (n=37)	Significance of Test Statistic *	**
Fear	2.7	2.2	2.2	1.9	2.0	p<.001	p<.01
Anxiety	2.1	2.0	1.9	1.8	2.0	ns	ns
Stress	1.4	1.4	1.3	1.2	1.3	ns	ns
Dismay	1.9	1.8	1.8	1.5	1.8	ns	ns
Adjust	1.9	1.6	1.6	1.4	1.3	p<.001	p<.01

* for differences in means

** for linear relationship

threat of personal harm may appear more immediate, and the threat more personal in its immediacy. However, in a burglary, the sanctity of the victim's home, the resting place safe from others, and the personal territory, is invaded; perhaps leaving the lingering sense that there is no haven or place of protection. As different as these two crimes are, burglary and robbery victims may be similar in that the victimization has left them with an enduring loss of control over property and autonomy, but with their actual physical safety intact. For this reason, we combined burglary and robbery into a single category for a second test of the Bard-Ellison hypothesis. This does not mean that burglary and robbery victims are being considered as comparable crimes, except in terms of the intrusivness of the offense.

When the intrusiveness of the crime is compared among the four types of crimes, Bard and Ellison's hypothesis is supported; that is, there is a significant relationship between psychological distress in all areas and the intrusiveness of the crime. Table 8 shows the levels of fear, anxiety, stress, dismay, and social adjustment problems about a month after the crime. The results show that rape victims are consistently more traumatized than other victims and that robbery and burglary victims show lower levels than other victims. Differences between domestic assault and other assault are less clear-cut, both theoretically and empirically. At the second interview (Table 9), the linear relationship between the intrusiveness of the crime and the level of psychological distress remains significant for all five symptoms. However, the magnitude of the differences across types of crime is diminished, especially in the areas of anxiety, stress and dismay. Differences in the levels of distress are much smaller four to six months after the initial interview.

Summary

Perhaps the most noticeable finding is the relatively high level of distress reported by all types of victims about a month after the crime. The level of distress suffered varies by crime type, with sexual assault victims showing greater trauma than victims of domestic and other assaults, and burglary and robbery victims displaying the least trauma. Thus, the more violent and intrusive the crime, the greater the trauma. On the other hand, the differences among the victims (by crime type) are quantitative, not qualitative; they are reflections of degree, rather than reflections of different emotional experiences among victims.

Table 8
Psychological Distress Among
Victims by Type of Victimization
About One Month After the Crime:
Burglary and Robbery Combined

	Rape (n=45)	Domestic Assault (n=61)	Other Assault (n=58)	Burglary/Robbery (n=71)	Significance
Fear	2.6	2.2	2.3	2.0	$p < .001$
Anxiety	3.2	3.0	2.9	2.7	$p < .001$
Stress	2.3	2.3	2.0	1.8	$p < .001$
Dismay	2.7	2.5	2.3	2.0	$p < .001$
Adjust	2.6	2.0	2.2	1.8	$p < .001$

Table 9
Psychological Distress Among
Victims by Type of Victimization
About Six Months After the Initial Interview:
Burglary and Robbery Combined

	Rape (n=45)	Domestic Assault (n=61)	Other Assault (n=58)	Burglary/Robbery (n=71)	Significance
Fear	2.7	2.2	2.2	1.9	$p < .001$
Anxiety	2.1	2.0	1.9	1.9	$p < .05$
Stress	1.4	1.4	1.3	1.2	$p < .05$
Dismay	1.9	1.8	1.8	1.7	$p < .05$
Adjust	1.9	1.6	1.6	1.3	$p < .001$

CHAPTER III
RESPONSE TO VICTIMIZATION BY SOCIODEMOGRAPHIC CHARACTERISTICS

Which victims experience the highest levels of victim distress? This question concerns both policy-makers and practitioners. Those who would provide victim assistance and related services need to know the characteristics of the victims in distress. This chapter examines the sociodemographic correlates of fear, anxiety, stress, distress, and social adjustment difficulties at the time of the initial interview and four to six months later.[1]

The sociodemographic characteristics consist of a set of eight indicators: sex, age, race, marital status, children, employment, income, and education. A variety of meanings can be attributed to these indicators. Education and income are frequently interpreted as measures of socioeconomic status. Education is also viewed as a measure of access to information while income is a measure of resources. Marital status reflects both social role and access to social support, among other things. Thus, the results of this analysis of sociodemographic variables can expand our understanding of the experience of victimization while describing the characteristics of victims most likely to suffer psychologically from crime.

Results

Table 10 presents the average scores on the five psychological distress scales by sociodemographic variables. One-way analysis of variance was used to determine whether there are significant differences in the means of the categories of each variable. When the F-test indicated significance, the probability level is shown at the bottom right of the column of means; otherwise, the space is blank.

The strongest differences in distress level about a month after the crime are between men and women. Women consistently report higher levels of fear, anxiety, stress, dismay, and problems in social adjustment. There are also significant differences in victim distress across income groups, although the pattern is less clear. The relationships between income and fear, anxiety, stress, and dismay appear to be somewhat curvilinear with lower levels of distress reported by victims

[1]Information on the study design and scale construction is provided in Chapter II.

Table 10
Psychological Distress Among Victims
About One Month After Victimization by
Sociodemographic Variables

	Fearful	Anxiety	Stress	Dismay	Social Adjustment
RACE					
Black (n=6)	2.6	3.0	2.4	2.6	2.9
Hispanic (n=44)	2.4	3.0	2.3	2.3	2.1
White (n=181)	2.2	2.9	2.1	2.3	2.1
Other (n=5)	2.7	2.7	2.0	2.8	2.1
SEX					
Male (n=45)	1.7	2.5	1.8	1.9	1.7
Female (n=191)	2.4	3.0	2.2	2.4	2.2
	$p<.001$	$p<.001$	$p<.01$	$p<.001$	$p<.01$
MARITAL STATUS					
Married (n=82)	2.1	2.9	2.1	2.3	2.1
Divorced/Separated (n=79)	2.3	3.0	2.2	2.4	2.2
Single (n=75)	2.3	2.9	2.0	2.3	2.0
CHILDREN					
Some (n=140)	2.2	2.9	2.1	2.3	2.1
None (n=85)	2.4	2.9	2.1	2.4	2.2
EDUCATION					
0-8 years (n=9)	2.0	3.0	2.0	2.0	1.6
Some High School (n=41)	2.4	3.0	2.3	2.5	2.2
High School Grad. (n=75)	2.3	3.0	2.2	2.4	2.1
Some College (n=71)	2.1	2.8	1.9	2.2	2.0
College Graduate (n=24)	2.3	2.9	1.8	2.3	2.3
Post College (n=16)	2.3	3.1	2.2	2.4	2.4
INCOME					
$4,000 or less (n=31)	2.3	3.2	2.4	2.6	2.1
5,000-10,000 (n=69)	2.4	2.9	2.1	2.3	2.1
11,000-15,000 (n=47)	2.4	3.1	2.1	2.5	2.3
16,000-20,000 (n=29)	2.1	2.8	2.2	2.4	2.1
21,000-25,000 (n=20)	1.7	2.5	1.6	1.9	1.7
26,000-30,000 (n=13)	2.2	3.0	2.2	2.6	2.4
30,000 or more (n=20)	2.0	2.8	2.0	2.1	2.2
	$p<.05$	$p<.01$	$p<.05$	$p<.001$	
AGE					
Less than 20 (n=15)	2.6	2.8	2.1	2.4	2.0
20 to 29 (n=105)	2.4	3.0	2.2	2.4	2.1
30 to 39 (n=58)	2.1	2.9	2.1	2.3	2.2
40 to 49 (n=21)	2.2	3.2	2.3	2.5	2.2
50 to 59 (n=23)	2.0	2.7	1.8	2.2	1.9
60 or Older (n=14)	1.8	3.0	1.9	2.1	1.8
	$p<.05$				
EMPLOYMENT					
Working (n=151)	2.2	2.9	2.0	2.3	2.0
Not Working (n=75)	2.4	3.1	2.3	2.5	2.3
Retired (n=10)	1.7	2.5	1.8	2.0	1.7
	$p<.05$	$p<.05$		$p<.01$	$p<.01$

with incomes of $21,000 to $25,000. In addition, employment status is related to distress levels. Victims who are not working have higher scores on the distress scales (except stress) than those who are employed. Fear is the only symptom related to age: younger victims tend to be more fearful than older victims.

Four to six months later, male/female differences, while generally smaller, can still be observed (Table 11). However, the male/female gap decreases for anxiety, dismay, and social adjustment and disappears entirely for stress. Anxiety, stress, and social adjustment problems also vary by income; those earning $4,000 or less show relatively high levels of distress and those earning $21,000 to $25,000 relatively low levels. Persons who do not have a job are more likely than those who are employed or retired to report symptoms of fear, anxiety, and stress. Education, which showed no relationship to distress shortly after the crime is now, some months later, related to stress, dismay, and social adjustment. Victims who have attended, but not graduated, from high school expressed greater distress than those in other education groups.

To identify subgroups of the population who experience the highest (and lowest) levels of psychological distress, an Automatic Interaction Detector (AID) analysis was used to partition the sample into groups. This procedure identifies characteristics of portions of the population exhibiting the maximal difference in group means on the scales (Sonquist, Baker & Morgan, 1973). Because AID can be sensitive to errors in the data and to small sample sizes, very conservative limits were placed on the selection of sample splits. The same eight demographic variables were used to predict the scores on fear, anxiety, stress, dismay, and social adjustment at the time of each of the two interviews. Age and income were constrained to ordinality to facilitate interpretation, while education was recoded to combine the two highest categories into a single category (college graduates), and the two lowest categories into a single category (12 grades or less). The results are presented in Figures 1 through 5. The figures show the sequential partitioning process left to right so that each group has the characteristics shown in the box and all characteristics of the boxes from which it descends.

Fear, as measured by reports of fear of guns, strangers, and potentially frightening situations, is highest among younger women and lowest among men (Figure 1). Initially, about a month after the crime, women can be divided on the basis of their fear levels into three groups: those under 30 years old, those 30 through 49

Table 11
Psychological Distress Among Victims
Six Months After Initial Interview
Sociodemographic Variables

	Fearful	Anxiety	Stress	Dismay	Social Adjustment
RACE					
Black (n=6)	2.1	1.9	1.4	1.6	1.0
Hispanic (n=44)	2.2	2.0	1.5	1.7	1.6
White (n=181)	2.2	1.9	1.3	1.8	1.6
Other (n=5)	3.1	2.0	1.4	2.1	1.8
SEX					
Male (n=45)	1.6	1.7	1.2	1.6	1.4
Female (n=191)	2.4	2.0	1.4	1.8	1.6
	$p<.001$	$p<.05$		$p<.05$	$p<.05$
MARITAL STATUS					
Married (n=82)	2.2	2.0	1.4	1.8	1.6
Divorced/Separated (n=79)	2.2	2.0	1.4	1.9	1.6
Single (n=75)	2.3	1.8	1.3	1.7	1.6
CHILDREN					
Some (n=140)	2.2	2.0	1.4	1.8	1.6
None (n=85)	2.3	1.9	1.3	1.7	1.5
EDUCATION					
0-8 years (n=9)	1.8	1.8	1.3	1.4	1.2
Some High School (n=41)	2.5	2.2	1.6	2.0	2.0
High School Grad.(n=75)	2.3	1.9	1.3	1.8	1.5
Some College (n=71)	2.1	1.8	1.2	1.7	1.4
College Graduate (n=24)	2.3	1.8	1.2	1.8	1.6
Post College (n=16)	2.2	2.1	1.5	2.0	1.6
			$p<.01$	$p<.05$	$p<.01$
INCOME					
$4,000 or less (n=31)	2.3	2.3	1.6	1.9	1.9
5,000-10,000 (n=69)	2.3	1.9	1.3	1.7	1.6
11,000-15,000 (n=47)	2.2	1.8	1.2	1.7	1.6
16,000-20,000 (n=29)	2.2	2.0	1.3	1.9	1.6
21,000-25,000 (n=20)	1.7	1.5	1.1	1.5	1.1
26,000-30,000 (n=13)	2.2	2.2	1.4	2.0	1.6
30,000 or more (n=20)	2.1	2.0	1.5	1.9	1.6
		$p<.01$	$p<.01$		$p<.05$
AGE					
Less than 20 (n=15)	2.6	2.0	1.3	1.7	1.7
20 to 29 (n=105)	2.3	1.9	1.3	1.7	1.6
30 to 39 (n=58)	2.2	2.0	1.3	1.8	1.6
40 to 49 (n=21)	2.0	2.2	1.6	1.9	1.7
50 to 59 (n=23)	2.1	1.9	1.4	1.9	1.5
60 or Older (n=14)	1.9	2.1	1.3	1.7	1.5
EMPLOYMENT					
Working (n=15)	2.2	1.9	1.3	1.8	1.5
Not Working (n=75)	2.4	2.1	1.5	1.9	1.7
Retired (n=10)	1.8	1.7	1.3	1.6	1.4
	$p<.05$	$p<.05$	$p<.05$		

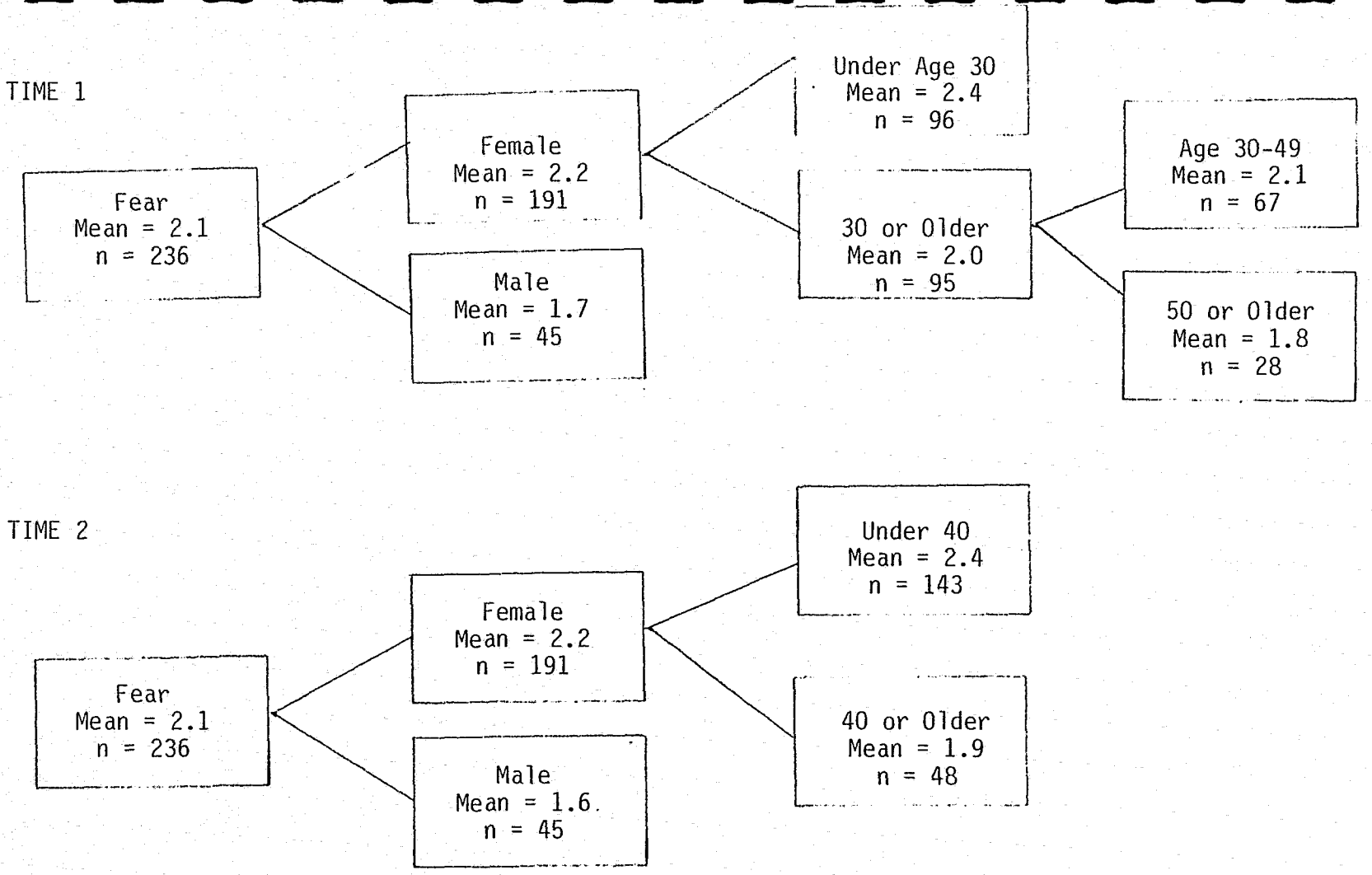

FIGURE 1. Fear Among Sociodemographic Groups of Victims by Time of Interview

years old, and those 50 and older. At the time of the second interview, the age differences in women's fear levels persisted, this time between women under 40 and women 40 and older. Not only did fear levels among victims remain unchanged across the four to six months, but the victims most likely to be fearful remained unchanged.

Anxiety, the feelings of nervousness and worry, declined among victims from an average of 2.9 about a month after the crime to 1.9 four to six months later. Initially, women were more anxious than men, especially those women who had a maximum of 12 grades of education or a college degree. Women with some college were less anxious (Figure 2). The picture four to six months later is more complex. The sharpest difference is between very low income victims earning $4,000 per year or less, and victims with higher incomes. Among the latter group (a large portion of the sample), women were more anxious than men, especially those with incomes over $25,000 per year.

Physical symptoms of stress such as nightmares, headaches, chest pains, and others, were more prevalent among women than men at the first interview (Figure 3). Women with a college education expressed lower stress levels than women with less education. In particular, college-educated women, 30 or older, experienced lower stress levels than younger college-educated women. Socioeconomic factors appear to be the more important determinants of stress four to six months later. Victims earning $5,000 a year or more reported lower stress levels than victims with less income. Among the $5,000 and over income group, stress is lower among those with a college education than among those with less education. Among the lower education group, stress is higher among those not working than among those who are employed. The net effect is to suggest that victims' stress levels are higher among the victims of lower socioeconomic status. Lack of resources may inhibit recovery from stress among these victims.

Feelings of dismay, such as sadness, guilt, anger and dissatisfaction, reflect, again, sharp male/female differences at both points in time despite a significant decline in levels of dismay (Figure 4). The major demographic predictor of dismay is unchanged: female victims express higher levels than male victims. About a month after the crime, women under 50 experienced higher levels of dismay than older women. Four to six months later, women with incomes over $25,000 experienced higher levels of dismay than women with lower incomes.

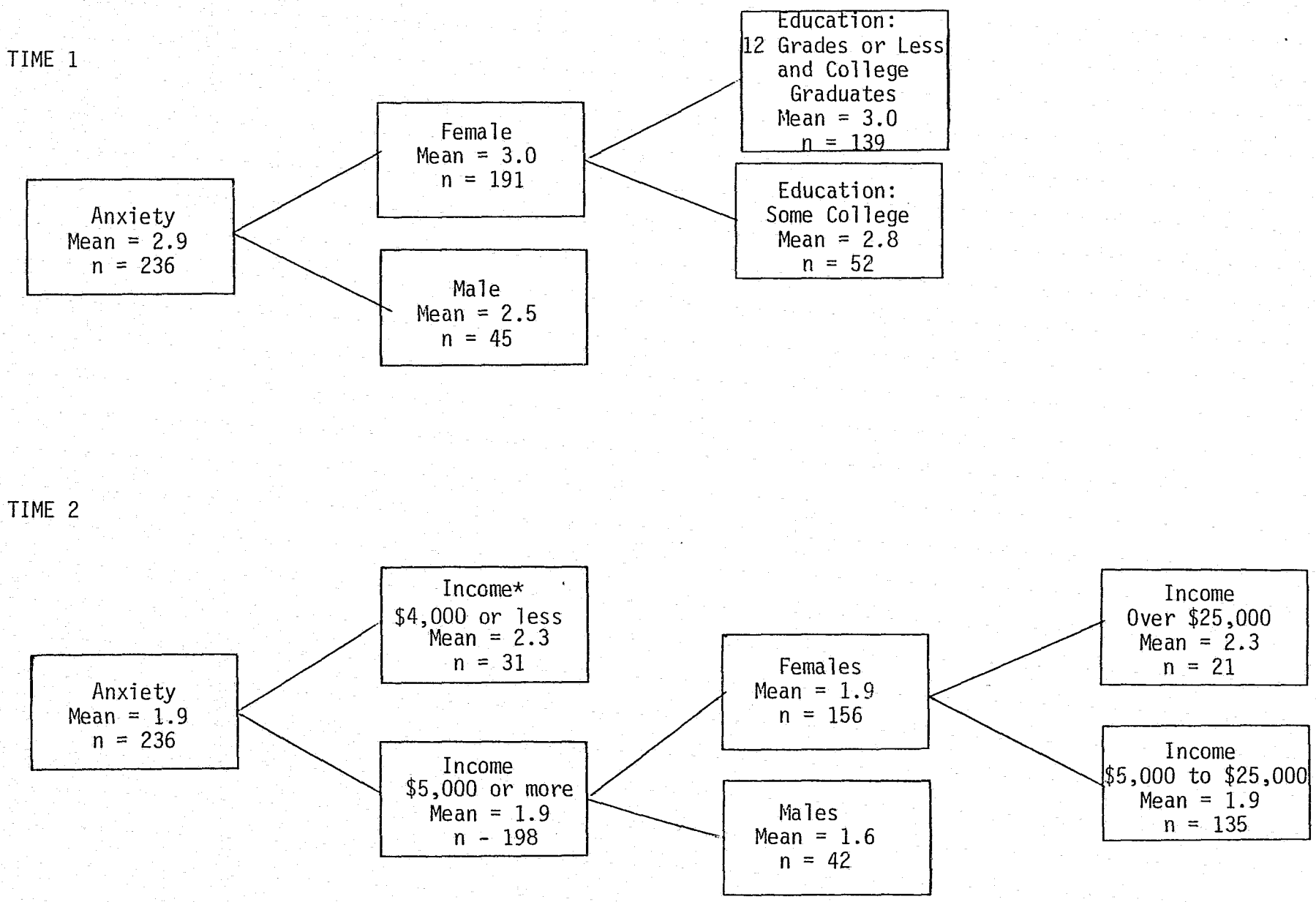

FIGURE 2. Anxiety Among Sociodemographic Groups of Victims by Time of Interview.

*Income data is not available for seven respondents.

*Income data is not available for seven respondents.

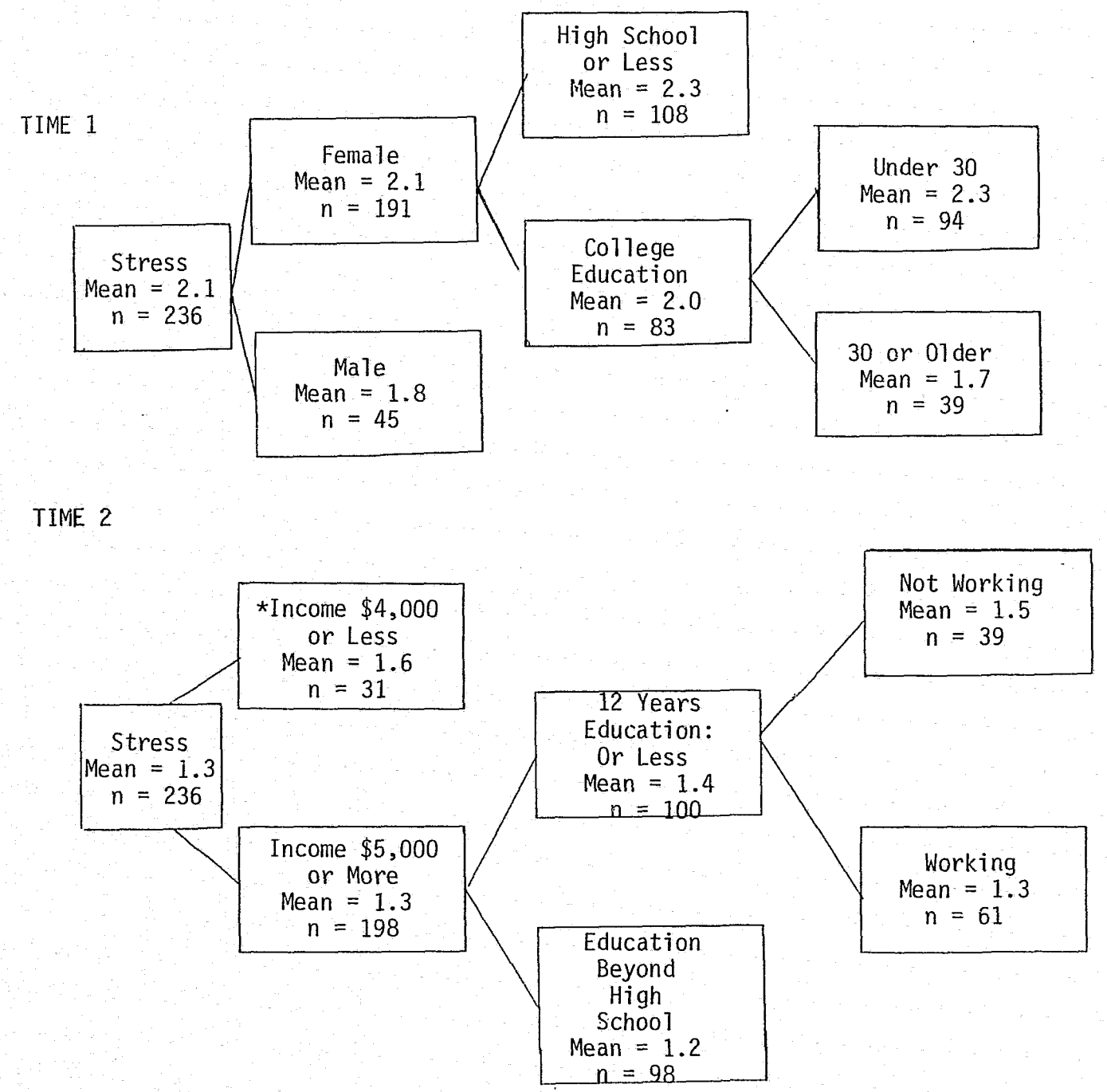

FIGURE 3. Stress Among Sociodemographic Subgroups of Victims by Time of Interview

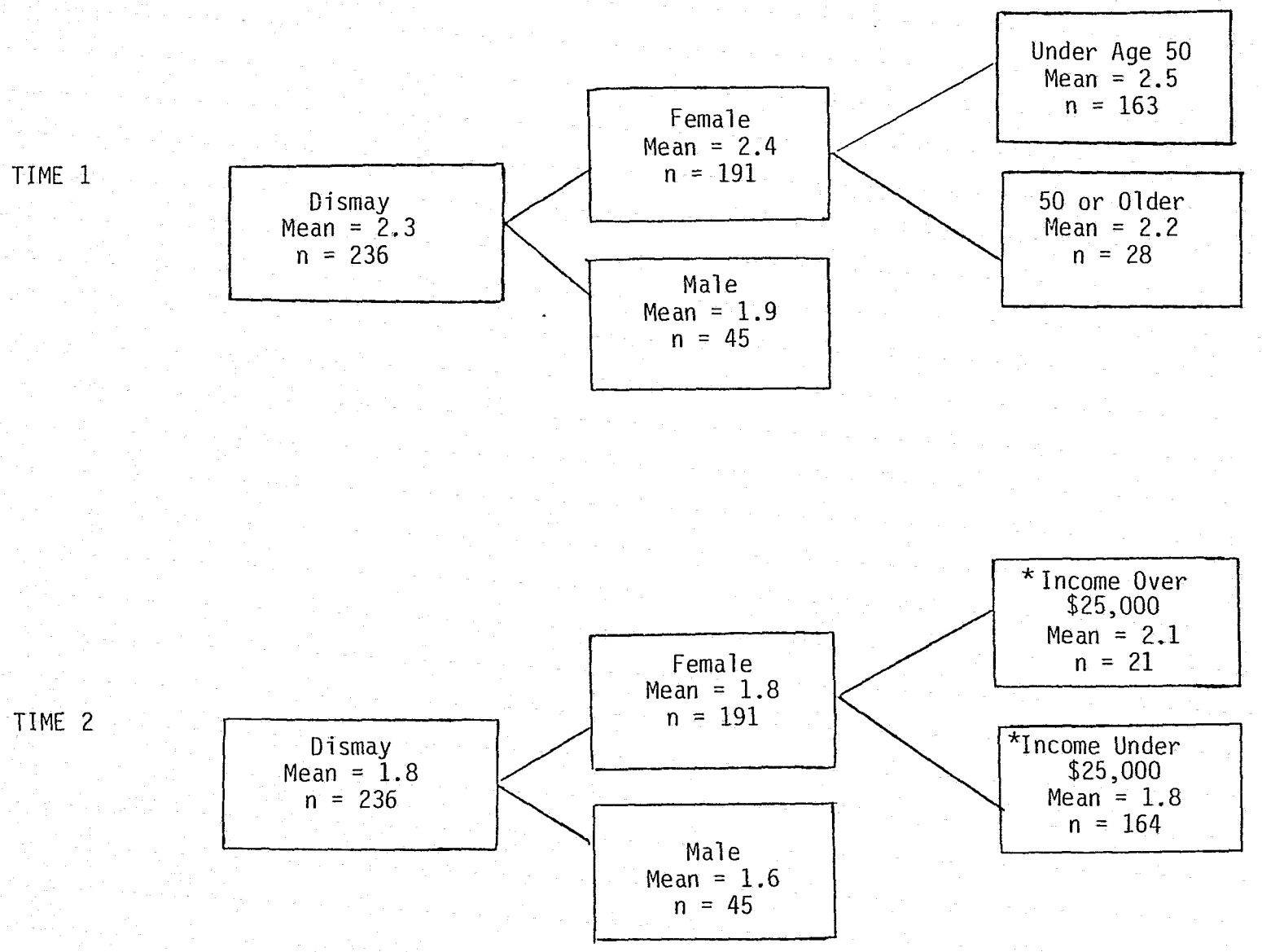

FIGURE 4. Dismay Among Sociodemographic Groups of Victims at Each Interview.

*Income data is not available for seven respondents.

Social adjustment among victims improved between interviews (Figure 5). The average score on problems in getting along with others and returning to normal activities declined from 2.1 to 1.6 (Figure 5). About a month after the crime, women under 50 again reported higher levels of distress, while males reported lower levels. However, males averaged 1.7 on social adjustment, which is higher than the 1.6 average for all victims at the second interview. Like symptoms of anxiety, social adjustment problems are highest at the second interview among very low income victims earning $5,000 per year or more and women report more problems than men.

Summary

Psychological distress among victims is clearly higher among women than men. Both the bivariate analysis and the AID analysis show higher levels of all symptoms among women than among men. The magnitude of the gender difference may, however, be somewhat overestimated for two reasons. First, the expression of feelings such as anxiety, fear and stress may appear more socially acceptable for women than men. Men may be more reluctant to verbalize their feelings of distress. Second, for men, anger, rather than fear, anxiety and other symptoms, may be the most apparent signal of psychological distress. If so, the scales used in this study would not capture a potentially important aspect of distress among men. Some of the male/female differences in distress may also relate to crime type. That is, the victims of rape and domestic assault are female and very traumatized. The men in the sample are found in the less serious crime categories of assault, robbery and burglary. However, when crime type is controlled, the male/female difference remains significant as Table 6 in Appendix C indicates.

Beyond the male/female differences, demographic differences in victim distress are less noticeable. There is a consistent tendency for younger women to experience higher levels of distress than older women. In part, this is due to the younger age of female rape victims, victims who exhibit very high levels of distress. In addition, younger women are less likely to be settled in an established family setting, factors which could contribute to feelings of isolation and the intensity of reaction to victimization.

The association between sex and age and psychological distress declines as the time post-victimization increases. Although socioeconomic variables are not

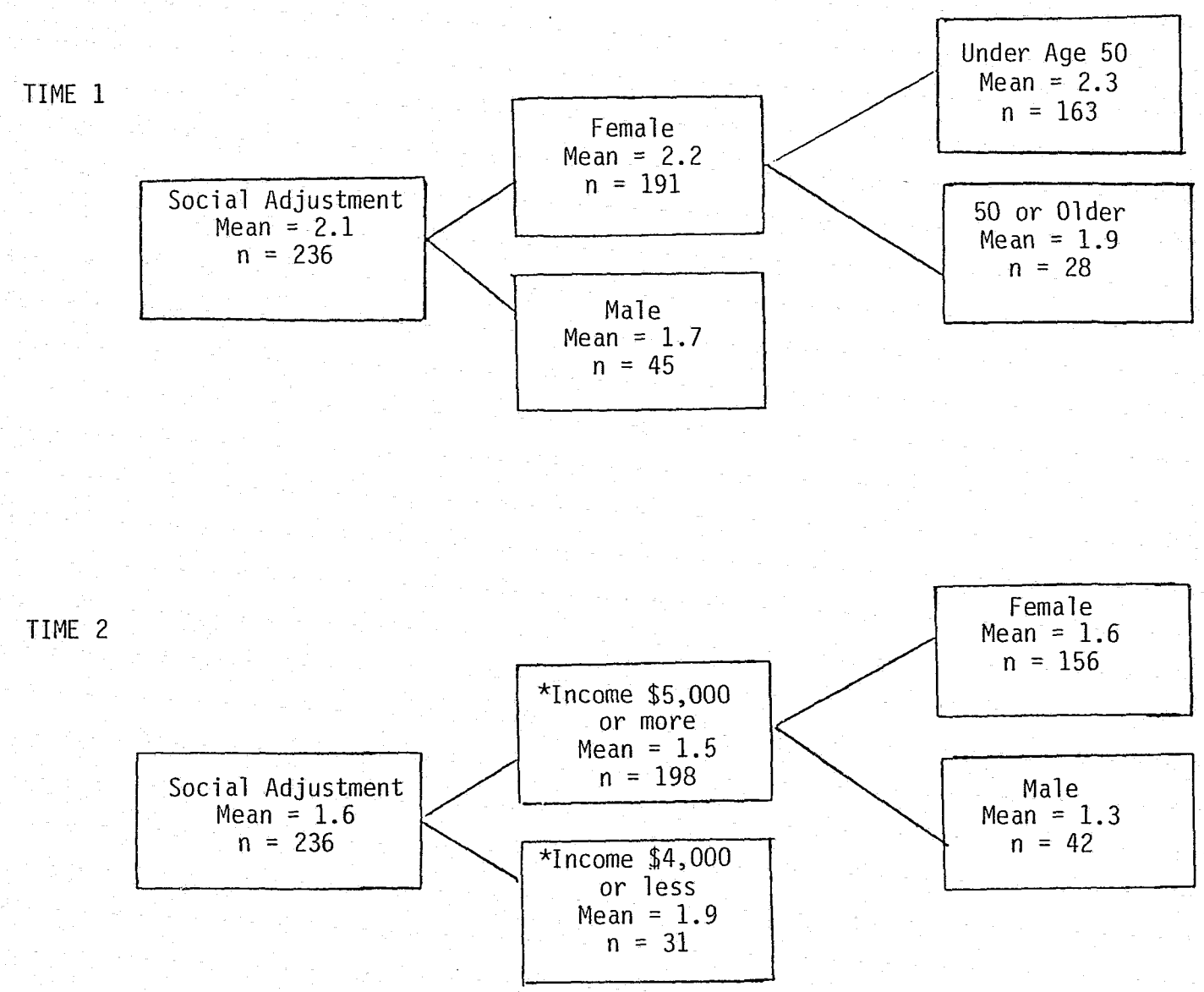

FIGURE 5. Social Adjustment Among Sociodemographic Groups of Victims at Each Interview

*Income data is not available for seven respondents.

related to psychological distress shortly after the crime, income and education become increasingly important in differentiating victims who are doing well from those who are not. This finding suggests that victims with higher incomes and/or education, that is, those with greater socioeconomic resource, show a greater decline in psychological distress, although higher income women continue to report feelings of dismay and anxiety. Future research should examine the role of socioeconomic factors in victim recovery more directly.

CHAPTER IV
MODELS OF PSYCHOLOGICAL DISTRESS AMONG VICTIMS

The effects of victimization vary from crime to crime and from person to person. As Chapter III demonstrated, rape victims experienced higher average levels of fear, anxiety and other forms of psychological distress than victims of robbery or burglary. However, there are substantial individual differences in reactions to crime. Indeed, the range of reactions to crime is so broad that some robbery victims report distress levels as high as some rape victims. In this chapter, multivariate models are used to examine the role of personal and social influences on psychological distress during the month following victimization and again six months later.

Model Development

Psychological distress among victims is expected to be directly related to the crime. The criminal event is the "trigger" or precipitating factor that sets in motion a chain of adverse reactions. The uncontrollable and undesirable nature of criminal events makes it virtually certain that crimes, like other crisis-inducing events, (e.g., bereavement, serious illness) will induce at least some psychological distress (Vinokur & Selzer, 1975; Suls & Mullen, 1981; Averill, 1973; Glass, 1977).

Crime events do, however, differ in severity -- some are clearly "worse" than others. The seriousness of a crime can be measured in many ways -- by the severity, certainty, or celerity of the criminal sanctions, by public perceptions of stigma, or by personal intrusiveness among others. One measure of the severity of a crime is its intrusiveness: the degree of violation of self-integrity and personal autonomy. As Chapter II indicated, crimes can be ranked in personal violation along a continuum from crimes like burglary or robbery through rape (or even homicide). The symbolic threat to possessions or autonomy inherent in burglary and robbery is not as personally intrusive as the physical harm and domination inherent in sexual assault (Bard & Ellison, 1974; Bard & Sangrey, 1980). Other aspects of victimization that have been found to increase the level of victim distress include the use of a weapon and/or physical injury (Peters, 1977; MacCahill, et al., 1979). In addition, victimization by someone known to the victim, such as a friend, family member, or acquaintance is particularly stressful (Smith, 1981). For this research, the seriousness of a crime was measured by the amount of personal

violation typically experienced by victims of various crime categories. Personal violations were ranked by the level of intrusion (actual or symbolic) with physical invasion rated more intrusive than symbolic invasion. However, victims within crime categories varied widely in both actual and perceived level of individual violation. In addition, the number of additional indicators of the particular circumstances of the offense such as use of a weapon or personal injury is used as an indicator of the level of threat.

Research on stress and crisis reactions suggests that the effect of a precipitating event such as crime may depend upon the accumulated stress level of the individual. Individuals who have experienced stressful life events and/or continuing serious problems in the relatively recent past may find themselves lacking the psychological reserves required to deal with the crime (Golan, 1978; Caplan, 1964; Sales, Baum & Shore, 1984). Theoretically, accumulating stress depletes individual coping resources, leaving the person vulnerable to damage from an additional crisis such as victimization (Silver & Wortman, 1980; Golan, 1978; Caplan, 1964). Although the link between stressful events and both physical and mental health is well-established (Dohrenwend & Dohrenwend, 1974; Holmes & Rahe, 1967), research on the way in which life stress affects responses to victimization has produced mixed results. Ruch, Chandler and Harter (1980) found that the relationship between stressful events and rape trauma was not cumulative, but curvilinear. That is, victims with few stressful events or a high number of stressful events exhibited higher levels of trauma than victims with moderate levels of life stress, levels which presumably had prepared them with skills for coping with stressful events. Bard and Sangrey (1980) found that a major loss, a very severe recent crisis, improved recovery among rape victims, possibly because the crisis event overshadows the rape crisis. Burgess and Holmstrom (1978) found that chronic economic stress was associated with long-term adverse effects among rape victims. Part of the divergence in findings may be due to study differences. It should be pointed out that some of these studies are examining immediate victim impact (Ruch, Chandler & Harter, 1981) while others are looking at recovery -- or longer term effects of the crime (Bard & Sangrey, 1980; Burgess & Holmstrom, 1978). Moreover, the stressors investigated varied from crisis events (Bard & Sangrey, 1980) to chronic stress (Burgess & Holmstrom, 1978), from uncontrollable negative events to life changes, good and bad (Ruch, Chandler & Harter, 1981). In this research, we examined the cumulative effects of negative life events and continuing serious problems, focusing on the depletion of coping resources that would result from problems and stressful events occurring in the year before the crime.

The model includes two measures of past year stress. One is based on the number of different serious negative life events (or "shocks") experienced. Because this indicator is limited to a specific set of discrete events, it may miss ongoing stress or problems of other types. For that reason, a second measure is used -- the number of areas in which the victim experienced serious problems during the year. While it is possible that this self-report measure may be influenced by crime-related distress (e.g., traumatized victims may report more distress), current studies of coping behavior argue that stress is essentially a function of the person's environment relationship and appropriately measured by individual perception (Lazarus, DeLongis, Folkman & Gruen, 1985).

Resources for coping with the crisis victimization may be drawn, not only from personal history, but also from the social environment. Victims may find support and assistance needed to cope with victimization in friends, family, counselors, or other care givers (Golan, 1978; Caplan, 1964; Dean & Lin, 1977). Social support has been found to reduce the negative impact of rape (Norris & Feldman-Summers, 1981). Indeed, rape victims who receive social support exhibit higher rates of short- and long-term recovery (Burgess & Holmstrom, 1978).

A number of competing hypotheses have been advanced concerning the way in which social support would be related to psychological outcomes (see Williams, Ware & Donald, 1981; McFarlane, Norman, Streiner & Roy, 1983). Part of the difficulty in identifying the role of social support can be traced to the apparent reciprocal nature of the link between stress and social support; that is, stressful events may elicit higher levels of social support for the individuals, and these higher levels of support may act in turn to lower the stress response (McFarlane, Norman, Streiner & Roy, 1983; Lin, Simeone, Ensel & Kuo, 1979). The availability of social support for victims of many types of crime is documented by Friedman, et al. (1982). The model to be tested examines the direct effect of the number of sources of social support on the psychological distress shortly after the victimization and four to six months later. The measure of social support captures only one aspect of this construct -- the number of sources of support available to the victim. Other dimensions of social support, such as the type of help and its timing, were not available for inclusion.

For the most part, the impact of victim assistance services has been found to be modest at best (Smith, Cook & Harrell, 1984; Friedman, et al., 1982). Many victim services are limited in scope and tend to be given to the most adversely-affected

victims, increasing the likelihood that the services, which may be helpful indeed, will be evaluated as not helpful enough to overcome the serious problems of some victims. However, assistance from formal programs represents a significant resource, a source of potential aid that should be incorporated in a comprehensive model of victimization. The number of different kinds of formal victim assistance services was used to indicate the amount of assistance received. The variation in the type and time of assistance was broad and could not be coded for inclusion. Similarly, police and court contacts data was too diverse for analysis.

Procedure

The analysis that follows examines psychological distress as a function of the victimization experience, previous life stress, and formal or informal social support. The first model examines psychological distress during the crisis phase, two weeks to a month after the crime. The second evaluates distress four to six months later.* Analysis of covariance structures is used to test the tenability of the models. This procedure, developed by Joreskog (1973) allows the researcher to hypothesize a causal model by placing constraints on the correlations among variables (see Joreskog, 1978; Joreskog & Sorbom, 1981; Long, 1983). With LISREL (a linear structured relationships program appropriate to the planned analysis), we evaluate the ability of the model to reproduce the pattern of correlations observed in the data using maximum likelihood estimation to estimate the relationships among the constructs specified by the model. Analysis of covariance structures was selected for this analysis because it permits:

1) Hypotheses concerning a construct for which there are several available measures. For example, psychological distress is a construct measured using five scales. The algorithm uses confirmatory factor analysis to measure the construct in terms of multiple indicators' factor loadings.

2) Correlations among independent (and dependent) variables and constructs may be specified, eliminating the need for unrealistic assumptions of additivity. For example, severity of the crime and prior stress need not be assumed to be independent. One disadvantage of the analysis of covariance structures approach is the strict requirement for interval level variables connected by linear relationships. This requirement excludes demographic and other categorical variables from inclusion in the model. For this reason, a complete multiple regression analysis that includes these indicators as dummy variables is presented in the appendix for comparison.

*The definition of variables and the development of the scales used for analysis is described in Chapter II and Appendix A.

Psychological Distress One Month After Victimization

Responses to victimization two weeks to one month after the crime include five symptoms of psychological distress -- fear, anxiety, stress, dismay, and social adjustment. These symptoms are used as the indicators, and factor loadings are estimated to measure their relationship to the distress construct. Psychological distress is hypothesized in the model tested to be a function of three factors: severity of the crime, prior stress, and social support. The severity of crime is measured by the intrusiveness of the crime and by the threatening circumstances of the event (e.g., injury or use of a weapon).* Prior stress is measured by the number of uncontrollable, negative life events during the prior year and by the number of areas in which serious problems occurred in the past year. Social support is indicated by the number of sources from which help was received after the crime.

Table 12 illustrates the correlations among these variables.

TABLE 12

CORRELATION MATRIX OF MODEL VARIABLES
(TIME 1)

	FEAR	ANXIETY	STRESS	DISMAY	SOCIAL ADJUSTMENT	NO. OF HELPERS	INTRUSIVENESS	CRIME THREAT	LIFE STRESS	SERIOUS PROBLEMS
FEAR	1.000									
ANXIETY	0.455	1.000								
STRESS	0.480	0.530	1.000							
DISMAY	0.498	0.633	0.535	1.000						
SOCIAL ADJUSTMENT	0.468	0.496	0.554	0.531	1.000					
NO. OF HELPERS	0.103	0.025	0.038	0.006	0.015	1.000				
INTRUSIVENESS	0.272	0.272	0.284	0.380	0.248	-0.095	1.000			
CRIME THREAT	0.017	0.029	0.168	0.078	0.045	0.005	0.189	1.000		
LIFE STRESS	0.197	0.127	0.144	0.251	0.261	-0.011	0.152	0.118	1.000	
SERIOUS PROBLEMS	0.178	0.317	0.366	0.313	0.236	-0.089	0.213	0.191	0.287	1.000

The zero order correlation matrix used as input for the analysis of covariance structure is shown in Table 12. The consistently strong positive correlations among the indicators of psychological distress provide support for the thesis of an underlying construct of psychological distress among victims about one month after the crime. These correlations which ranged from .455 to .633 indicate that victims with one symptom are likely to have other symptoms suggesting the existence

*The definition of variables and the development of the scales used for analysis is described in Chapter II and Appendix A.

of an underlying trauma construct. Of the predictor variables, the intrusiveness of the crime, the stressful life events, and serious problems are positively related to all the distress scales, while the number of helpers and the threatening aspects of the crime show relatively weak associations with the outcomes. This correlation matrix is subsequently "organized" into a model by constraining selected correlation paths, and allowing the others to be estimated using data from the matrix.

Figure 6 illustrates the hypothesized model of the relationship of victim distress. The oval symbols such as psychological distress represent latent constructs -- the theoretical constructs we wish to measure with the available indicators. The rectangular symbols represent the manifest variables (indicators such as the fear scale) used to measure the latent constructs. The numbers above the arrows leading from the latent constructs to the manifest variables reflect factor loadings; the number above the arrow linking the two latent factors (such as severity of the crime and psychological distress) represents the regression coefficient of psychological distress on the other latent constructs. The numbers on the curved lines between latent constructs represent the correlations between latent constructs. The number at the end of the jagged line directed into the endogenous latent construct (psychological distress) represents the error variance of the model (the proportion of variation in psychological distress not accounted for by variation in the latent endogenous factors). All estimates are standardized; that is, they are calculated on the basis of unit variance in both the endogenous and exogenous factors.

Several indicators of "goodness of fit" suggest the overall tenability of the model shown in Figure 6. The root mean square residual is an indication of the average amount by which the model is unable to reproduce the correlation coefficients. The value .040 indicates that the model is reproducing the coefficients well. Further evidence of the adequacy of the model is the R-squared value of .466 for the structural equations among latent constructs.

The results also indicate a significant relationship between the severity of the crime and psychological distress as indicated by standardized coefficient of .328. However, the link between stress during the past year and psychological distress is even stronger (.472). In examining the factor loadings, it is apparent that serious problems -- financial, social, emotional, or physical -- were the type

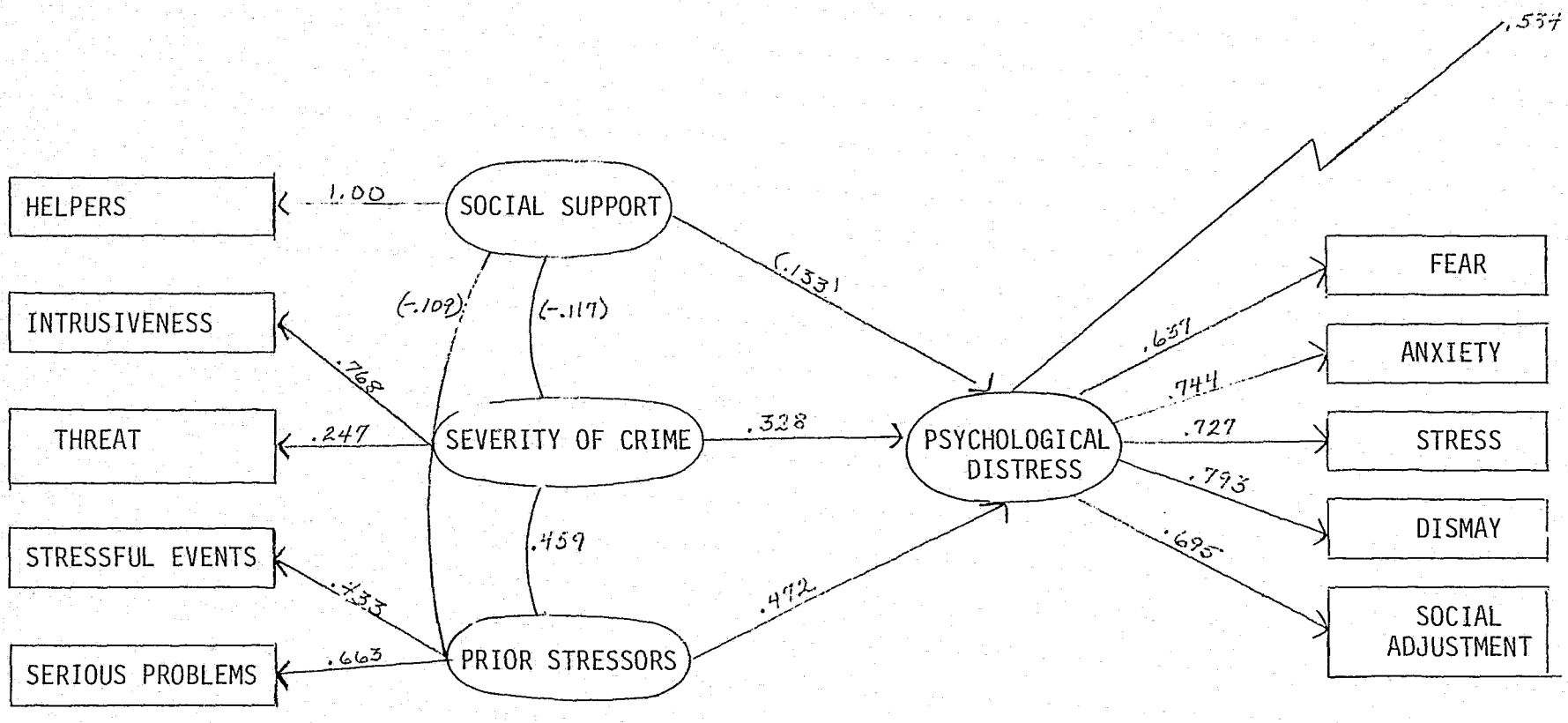

FIGURE 6. Psychological Distress About a Month After Victimization as a Function of The Crime, Prior Stress, and Social Support

R^2=.466

Root Mean Square=.04

of stressors that contributed the most to the stress construct. One aspect in the model did not receive empirical support. The relationship between social support and psychological distress was weak and insignificant.

The existence of an underlying construct of psychological distress that manifests itself in symptoms of fear, anxiety, stress, dismay, and social adjustment problems is strongly supported. The factor loadings of the distress scales on the distress latent construct ranged from .637 to .793. Overall, the scales explained 84% of the variance in the psychological distress factor.

Psychological Distress Four to Six Months Later

The model of victim reactions four to six months after the initial interview examines four predictors of psychological distress: the severity of the crime, prior life stress, social support, and victim assistance. The constructs of psychological distress, prior stress, and social support are measured as before, except that social support now refers to help received during the months between interviews. The threatening aspects of the crime were dropped from the severity of crime construct because it no longer showed any correlation with the psychological distress scales. The new construct, victim assistance, is measured by the number of different kinds of assistance received by the victim.

Table 13 illustrates the correlations among the variables in the model.

TABLE 13

CORRELATION MATRIX OF VARIABLES IN THE MODEL
(TIME 2)

	FEAR	ANXIETY	STRESS	DISMAY	SOCIAL ADJUSTMENT	INTRUSTIVENESS	LIFE STRESS	SERIOUS PROBLEMS	ASSISTANCE	NO. OF HELPERS
FEAR	1.000									
ANXIETY	0.495	1.000								
STRESS	0.409	0.704	1.000							
DISMAY	0.474	0.709	0.596	1.000						
SOCIAL ADJUSTMENT	0.493	0.594	0.615	0.593	1.000					
INTRUSIVENESS	0.269	0.140	0.133	0.143	0.237	1.000				
LIFE STRESS	0.141	0.050	0.065	0.070	0.140	0.152	1.000			
SERIOUS PROBLEMS	0.123	0.232	0.220	0.156	0.142	0.213	0.287	1.000		
ASSISTANCE	0.151	0.106	0.139	0.080	0.152	0.213	0.065	0.091	1.000	
NO. OF HELPERS	0.358	0.304	0.276	0.340	0.199	0.284	0.109	0.109	0.178	1.000

The matrix again indicates significant positive correlations among the psychological distress scales, correlations that have persisted despite declines across the four to six months in the means of all scales except fear. That is, victims who report one symptom of distress at this time are again likely to report others. Severity of the crime is moderately correlated with the distress scales as is serious problems during the year before the crime. The decline in the correlation between stressful life events and distress is not surprising in view of the amount of time between events that occurred in the year before the crime and the second interview. It appears that the impact of these events, like the impact of other crises, tends to diminish with time. In contrast, serious problems -- financial, social, emotional, or physical -- are more likely to represent problems that may be continuing and, in some cases, may be chronic sources of stress. The most noticeable change is the strong positive correlations between number of sources of social support and the outcomes. Social support which was not significantly correlated with level of distress during the month after victimization appears to be more significant across the following months.

Figure 7 illustrates the multivariate model of victim distress four to six months after initial interview. Again, the model seems relatively robust. The root mean square that indicates how well the model reproduces the correlation matrix is .042. The R-squared value of .212 refers to the proportion of the variance in the psychological distress factor explained by the model.

The results again confirm the existence of an underlying psychological distress construct related to each of the distress scales. Factor loadings of .590 to .865 show the strong relationship with the scales and the construct. The scales explained 87% in the psychological factor. Thus, despite the improvement in distress levels, it appears that those victims who report one symptom will tend to report others.

The strongest predictor of psychological distress at this point in time is social support, but not in the expected direction. Psychological distress levels are higher among victims reporting more sources of social support. This counter-intuitive finding may be the result of the fact that more severely traumatized victims may receive more offers of help from worried friends and family, but the support received may be inadequate in the face of the severity of the personal crisis. A second predictor of psychological distress at the second interview was

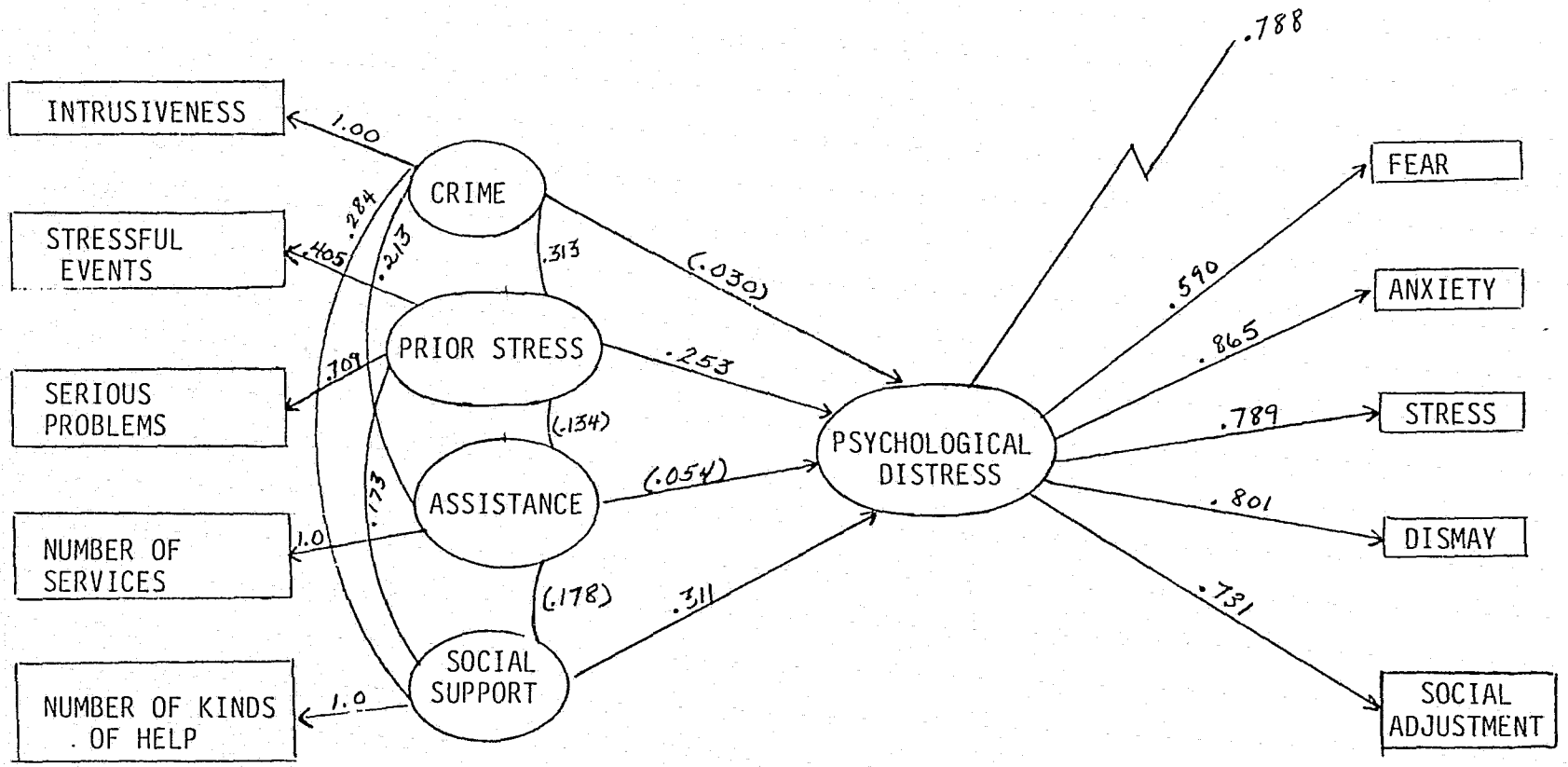

FIGURE 7. Psychological Distress Four to Six Months After Initial Interview As a Function of the Crime, Prior Stress, and Supports

R^2=.212
Chi-square=57.89
$p < .01$
Root Mean Square=.042

prior life stress, particularly in the form of serious problems. The coefficient relating prior life stress to psychological distress was .253.

A noticeable difference between the earlier models and the model four to six months later is that the severity of the crime is no longer independently related to distress. The correlation between severity of the crime and distress at the second interview appears to be explained fully by past life stress and social support. Victims of more severe crimes tended to receive more support, but remained more traumatized. Victims of more severe crimes also tended to report high levels of stress in the year before the crime. The fourth construct, formal assistance by victim programs, showed no significant relationship to psychological distress. However, the only available indicator of assistance -- the number and kinds of services received -- fails to capture qualitative differences in the kinds of services and, perhaps more importantly, does not reflect how much service, in terms of amount of time or number of contacts, was received.

Summary

The analysis of social and personal influences on victim distress yielded several significant findings. The first is that psychological distress among victims shortly after the crime can be predicted. Levels of psychological distress during the month following a crime can be predicted with a considerable degree of accuracy by knowing (1) what happened to the victim -- the offense and the threatening circumstances of the offense -- and, (2) how much stress the victim has experienced in the year before the crime in the form of negative life events or serious problems. The second is that help from friends, family and co-workers does not meet victim needs. More severe crimes appear to elicit social support from more sources and, as helpful as it may be, the additional social support is not adequate to allay the distress of victims. A third significant finding is that victim symptoms appear to be indicators of an underlying construct. The psychological distress factor shows strong positive correlations with the scales measuring symptoms of distress at both points in time, despite a drop in mean level of most scales. This suggests that there is an underlying construct of distress that is manifest in a variety of symptoms depending on circumstances or personality.

The implications of these findings for theory and practice are discussed further in the following Chapter.

CHAPTER V
DISCUSSION AND IMPLICATIONS

This research sought to shed light on the nature and course of the criminal victimization experience. Our past work and that of many others (for example, Friedman, et al., 1982) in the victim field have generally found psychological trauma to be the most troubling and enduring effect of victimization, overshadowing the problems of financial loss or physical discomfort. Accordingly, our investigation focused intensely on the psychological distress afflicting crime victims. And, despite the many different analytic techniques applied to the data set, all the analyses were driven by the same large question: What explains the differences in psychological trauma among victims? Not surprisingly, we found that the type of crime, its level of intrusiveness and violation, has considerable impact on the level of victim distress. On the average, rape victims are more traumatized than other assault victims. In turn, other assault victims are more traumatized than robbery or burglary victims. However, there are unexpected similarities in the emotional responses of all types of victims studied. But the most significant set of findings to emerge from this research came from the multivariate models. These analyses strongly suggest that underneath the varying symptoms of emotional trauma displayed by victims -- fear, anxiety, dismay, etc. -- there lies a common, unitary reaction of psychological distress shared by victims. Moreover, the level of psychological distress experienced by victims during those most troubling weeks shortly after the crime is determined by the victim's level of stress before the crime as well as by the severity of the crime itself. These findings and their implications are discussed further below.

Type of Crime and the Victimization Experience

Our findings largely supported the Bard-Ellison hypothesis that psychological distress is a function of the intrusiveness or degree of personal violation associated with the crime. Rape victims were generally more traumatized than assault victims, and robbery and burglary victims exhibited less distress than other victims. Yet, while differences in psychological distress were found across the groups of victims, the statistical trend tests indicated that they are differences of degree rather than type; that criminal victimization causes a generalized psychological reaction that is common to most victims regardless of the crime. Moreover, there were also considerable individual differences in psychological distress among the victims. For example, although rape victims were more

distressed on the average than victims of burglary, we found some burglary victims who were just as distressed as rape victims.

These findings suggest that we broaden our concern and attention beyond the victims of sexual assault to include the victims of other major crimes. This is not to deny that rape victims require special attention -- they certainly do -- but that similar concern should be extended to other victims as well.

Models of Psychological Distress and the Victimization Experience

We used multivariate models to evaluate the role of type of crime, socio-demographic characteristics of the victim, and the victim's prior life stress on psychological and behavioral distress during the month following the crime and six months later. Our modeling results can be summarized as follows. First, the findings strongly suggest the existence of an underlying construct of psychological distress which is the central, dominant reaction of individuals to criminal victimization. It is the reaction from which most victims, regardless of crime, suffer and which is manifested in several ways depending on the victim's circumstances and personality. Second, the model underscores the importance of viewing victimization effects in their socio-psychological context. People are not victimized in isolation from other life events. In particular, the amount of stress the individual has experienced prior to the crime strongly influences the degree of psychological distress occurring after the crime. Third, a victim's level of psychological distress is predominantly determined (certainly during the initial troubled period) by only two sets of variables: (1) severity of the crime, and (2) prior life stressors. Thus, knowledge of the offense and its circumstances, along with the knowledge of level of stress experienced by the victim during the past year can be used to predict the level of psychological distress they will endure following victimization. Fourth, social support from family and friends does not appear to be very effective in allaying psychological distress, although, because more severe crimes elicit more social support, the effects of social support may be masked by the overwhelming needs of more traumatized victims. Fifth, the amount of assistance received from formal victim services does not appear to be very effective in reducing psychological distress.

Taken together, the findings from our model indicated that the distress suffered by crime victims is strongly correlated with the severity of the crime and the victim's previous life stress. Although family, friends, and formal victim

services undoubtedly help the victim in some ways (certainly the victim believes this), they do not appear to be able to sufficiently reduce the level of distress.

These findings are of special import for policymakers and practitioners. The strong correlations in our model suggest that services will be most needed by those individuals who have experienced many stressful events in the past year and those who are victimized by more severe crimes (e.g., those in which the victim's injury was serious, a weapon was used, and a relationship exists between the perpetrator and victim). Therefore, it would be fairly easy to identify those most likely to be traumatized by examining circumstances involving the crime and asking the victim a few questions regarding other recent stressful events. This could be done by the police officer on the scene (or during a routine follow-up investigation), a victim advocate, community service worker, etc., with relatively little expense. While this would help identify those most likely to need help following victimization, it should be viewed only as an initial step -- clues to alert the practitioner -- rather than a final determination of those requiring assistance. Because there are many individual differences within these patterns, other victims may also be highly stressed following the crime.

Sociodemographic Characteristics and the Victimization Experience

Two sociodemographic characteristics -- sex and the amount of socioeconomic resources -- were found to be consistently related to the victim's level of psychological distress, although the sex differences were more powerful and distinct than those attributable to socioeconomic resources.

Women appear to be more traumatized than men by crime, at least according to our measures. It is possible that the extent to which women are more distressed may be over-inflated, as women may be more willing than men to admit feelings of anxiety, fear, dismay, and stress. In addition, our measures did not focus on feelings of anger, revenge, hatred, and so on, which may be more common among men than women following a crime. We had some indication of the latter during our interviews with male victims who appeared to more often volunteer expressions of anger and desire for revenge. It would be of interest to add scales to measure anger, bitterness, desire for revenge, and so on in future research on both male and female victims.

Despite some reasons to question the size of the differences between men and

women in trauma endured following victimization, we believe that the strength and consistency of the differences, and our own observations, strongly suggest that victimization does affect women more negatively than men. We had the opportunity to directly observe the reactions and emotional states of many victims within hours after the crime as part of our evaluation of the Pima County Victim/Advocate Program (see Smith, Cook & Harrell, 1985). In addition, during the course of our in-person interviews, female victims generally related more problems and greater difficulties, not only on the scaled items but also in response to our open-ended questions about the effect of the crime on them. These observations are borne out by the multiple regression analysis in Appendix C that finds sex differences significant after controlling for other variables.

Although not as strong or consistent a pattern as the male/female distinction, we also found that generally those of lower economic means, education, and those unemployed were more distressed than their employed and more middle-class counterparts. This finding is an intriguing one. It supports research by Friedman, et al. (1982) which also found that those with less resources needed more help and had greater problems following victimization. Yet, it stands in contrast to some earlier research and theories. It had been predicted, with some supporting evidence (see, for example, Bard, 1980; Burgess and Holmstrom, 1978; Black, 1976), that lower socioeconomic classes adapt better to adverse situations such as victimization because it is expected and/or because it represents only a minor nuisance compared with other more negative daily occurrences with which they must cope. Our findings do not support this view, but the alternative, i.e., lower socioeconomic classes have greater difficulties adjusting after a crime, perhaps due to more limited amounts of resources to help them cope with the aftermath of victimization.

Yet, beyond these two characteristics, the sociodemographic variables were surprisingly weak determinants of the victim's psychological distress. Indeed, some of the sociodemographic variables not correlated with the amount of distress of the victims in our sample were as telling as those which were. We did not find effects based on the marital status of the victim, whether the victim has children, or the victim's race. The effect of the victim's age is especially interesting. Much has been said (and written) in recent years about the elderly's concerns about crime, their greater potential for becoming victims, and the greater negative impact of crime of the elderly (due to their more vulnerable physical condition and more limited social and financial resources). This would lead us to anticipate

that the elderly victims in our sample were more distressed than others. We did not find this. In contrast, the only effect by age was the opposite: older female victims were less fearful than younger ones (there was no difference among male victims). This confirms an earlier study (Friedman, et al., 1982), but stands in contrast to much of the popular media and general public opinion and has implications for delivering services to those in need.

Implications

The results of this research have significant implications for practitioners -- criminal justice officials, victim assistance advocates, etc. -- and for researchers in the victim field. The central implications are presented below.

- Because most victims suffer from some level of psychological distress, all should have the opportunity to receive some degree of attention and support.

The existence of the construct of psychological distress common to crime victims, together with the similarities in reactions across crime type ("difference of degree") argues for attention to the needs of a broader range of crime victims. It is unlikely that all crime victims require assistance during the post-crime period. But, police officers, prosecutors, and victim counselors probably should be alert, to a greater degree than in the past, to the likelihood that most victims will experience some level of psychological distress, particularly during the first several weeks after the crime. Of course, priorities should be set: the brutality of the sexual assault demands an immediate and thorough response from officials and victim assistance services that is not appropriate to most burglary victims. But, our statement about the victim distress reactions also applies to the helping response: it should be a difference of degree rather than of type. The family and friends of an assault victim should be encouraged to exhibit support and understanding that is not significantly different from that for a rape victim. A police officer should, at the very least, consider the burglary victim a candidate for assistance services. For example, to the extent that victim assistance services are available, all victims should be made aware of the services. Yet, we hasten to add that our research found little evidence that either social support or formal victim assistance services have beneficial impact on the victim's level of psychological distress, even though our evaluation of victim services did find other positive effects on victim adjustment (Smith, Cook & Harrell, 1985). Therefore, while we believe that most victims deserve access to attention and

support, there remains a question about what form that attention should take.

- Knowledge about the severity of the crime and the victim's prior life stress can be used to identify victims at risk for higher levels of psychological distress.

The fact that only two sets of variables -- prior life stress and the severity of the crime -- account for the larger proportion of subsequent psychological distress has significant implications for identifying those victims most in need of assistance. For many individuals in a position to identify distressed victims, the severity of the crime already serves to trigger the call for assistance. But, few are aware of the equally powerful effect of perceptions of prior life stress: it is as though the crime is the spark that ignites the smoldering coals of life stress. It would seem, therefore, that if a police officer or victim assistance advocate were to ask the victim (or a family member) a few simple questions about stress during the previous year, they would significantly improve their ability to identify victims who are most likely to experience substantial distress during the next several weeks and months. Although this topic deserves more investigation, we believe the evidence is sufficiently strong that information about the role of prior life stress should be disseminated broadly to all those in a position to identify and assist victims in need.

- We know more about the distress caused by victimization than we know about how to effectively treat it.

The current study adds to the literature available on the psychological distress of victims. As noted in the beginning of this chapter, we know unequivocally that victims suffer many problems as a result of the crime, with the most severe and enduring problems often in the psychological arena. Yet, we know far less about how to help victims. Our evaluation of the Pima County Victim/Witness Advocate Program found only slight evidence that crisis intervention helps relieve psychological distress (see Smith, Cook & Harrell, 1985). Other research has also failed to empirically document approaches which succeed at reducing victim's trauma. The current report found that social support does not significantly reduce victim's distress. We did find (as have other researchers, e.g., Kilpatrick, Veronen, & Resick, 1979; Friedman, et al., 1982; Kilpatrick, Resick & Veronen, 1981) that as time passes after the crime, victims tend to recover from their psychological distress. Is time the only cure? Can we speed up the

recovery process? How long do victims need assistance to cope with the negative impact of crime? Despite numerous efforts to address these questions, many issues remain largely unresolved.

- More comprehensive studies of victimization need to be conducted with large, varied samples which include measurement of social/contextual variables.

The results of this research demonstrate the advantages -- both practical and theoretical -- of using multivariate techniques as a means of illuminating the roots and dynamics of victimization. We think that the identification of the central underlying construct of psychological distress, along with some its determinants and symptoms, marks an important advance in our knowledge of the victimization experience. But this study was conducted as an exploratory effort on a data set originally collected as part of our evaluation of victim services. As a consequence, neither the sample nor the battery of measures were ideally suited to a multivariate investigation of the victimization experience. Future research should employ larger representative samples and a broader set of variables that includes measures of pre-existing stressors and resources and immediate social supports, along with a broadened set of psychological scales. In addition to the scales used in this research, the psychological measures should include anger and hostility and locus of control. This research would not only generate an expanded, more valid body of information on victimization, but would integrate the information into a coherent theoretical framework for more complete depiction of the dynamics of the victimization experience.

- More research should be conducted on the underlying causes and dynamics of victim psychological distress and on the development of scales for measuring the full range of symptoms of victim distress.

The unitary construct of psychological distress has emerged as the underlying reaction to victimization. Although we have learned something of its determinants, we know little about its dynamics. Is the principal product of a classically conditioned fear response formed at the time of the incident and generalized to associated stimuli? Or, does it function as a combination of conditioned responses and more cognitive perceptions about environmental contingencies? What explains the variation in the maintenance and decay of different distress symptoms? We suggest that our ignorance of these basic processes is not unrelated to our

inability to relieve the psychological distress of victims, and that we are not likely to make advances in the latter until we begin to make inroads in the former.

Finally, we recommend that additional work be done on the development and refinement of psychological scales for measuring the victimization experience. It is our view that the victim field would be well-served by the development of standardized scales specifically oriented toward victimization. These scales would be much shorter and more focused on the symptoms of victimization than the standardized scales currently available. The objective of scale development would be to create measures that are more valid, more efficient, and more easily interpreted than scales developed mainly for use with clinical populations. The scales used in this research are a step toward such a battery. The next stage would involve the administration of these scales, along with other measures, to several sizable samples of victims and diverse groups from the general population, followed by factor analysis and the establishment of norms. The development of these scales would substantially improve our ability to conduct much needed research on the victimization experience.

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APPENDIX A

CHARACTERISTICS OF THE SAMPLE

SOCIODEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE
BY CRIME CATEGORY

	Sexual Assault (n=46) 100%	Domestic Assault (n=61) 100%	Other Assault (n=58) 100%	Robbery (n=34) 100%	Burglary (n=37) 100%	Total (n=23) 100%
Age						
Less than 20	22	2	3	6	0	6
20 to 29	52	39	45	62	27	44
30 to 39	17	26	33	12	30	25
40 to 49	4	13	10	6	8	9
50 to 59	2	15	5	3	24	10
60 or Older	2	5	3	12	11	6
Sex						
Male	0	5	36	44	16	19
Female	100	95	64	56	84	81
Race						
White	83	76	64	85	83	77
Hispanic and Other	17	24	36	15	17	23
Marital Status						
Married	20	46	26	35	49	35
Divorced/Separated	20	48	33	21	41	34
Never Married	60	7	42	44	11	32
Children						
Some	30	90	57	53	73	62
None	70	10	43	47	27	38
Education						
High School or Less	52	69	50	53	32	53
Some College	30	23	34	29	35	30
College Graduate	17	8	16	18	32	17
Income						
$ 4,000 or Less	17	18	14	10	5	14
$ 5,000 to $15,000	64	59	45	45	35	51
$16,000 to $25,000	10	13	29	35	24	21
$25,000 or More	10	10	12	10	35	14
Working						
Working	59	54	76	79	54	64
Not Working	41	46	24	21	46	36

Table A2
A Comparison of the Characteristics of the
Original and Retained Samples

	Original Sample (n=323)	Retained Sample (n=258)
Age		
Less than 20	7%	5%
20 to 29	39%	43%
30 to 39	27%	25%
40 to 49	10%	9%
50 to 59	10%	9%
60 or older	8%	7%
Sex		
Male	19%	19%
Female	81%	81%
Race		
White	76%	76%
Hispanic and Other	24%	24%
Marital Status		
Married	35%	32%
Divorced/Separated	35%	36%
Never Married	30%	32%
Children		
Some	66%	68%
None	34%	32%
Education		
High School or Less	28%	22%
High School Graduate	29%	31%
Some College	29%	30%
College Graduate	14%	17%
Income		
$ 4,000 or less	20%	16%
$ 5,000 to $15,000	49%	48%
$16,000 to $25,000	20%	11%
$25,000 or more	12%	8%
Working		
Working	58%	63%
Not Working	42%	37%
Treatment Group		
Crisis Intervention	33%	32%
Delayed VAS	35%	37%
No Victim Services	32%	31%

Table A3
A Comparison of the Original and Retained Samples:
Levels of Psychological Distress
About a Month After Victimization

	Original Sample (n=323)	Retained Sample (n=258)
Psychological Distress at First Interview		
Anxiety	2.95	2.93
Fear	2.21	2.22
Stress	2.13	2.10

Table A4
Mean Levels of Psychological Distress
About a Month After Victimization
by Crime Type and Treatment Group

	Crisis Intervention Program	Delayed Victim Assistance	No Victim Assistance
Assaults: Sexual, Domestic and Other (n=215)			
Anxiety	3.10	3.00	2.98
Fear	2.43	2.30	2.23
Stress	2.35	2.41	2.00
Robbery or Burglary (n=108)			
Anxiety	3.10	2.71	2.56
Fear	2.20	1.97	1.84
Stress	2.09	2.02	1.50

APPENDIX B

THE PSYCHOLOGICAL DISTRESS SCALES

The development of scales designed to measure psychological distress began prior to the interviewing with a review of the literature. During this review, we identified the kinds of distress victims had reported in previous studies and examined the instruments used to measure psychological responses. Many scales were quite long (over 100 items) and/or designed for general clinical assessment rather than the needs of victims. Thus, an important objective of the review was to find a relatively brief list of items that would focus on the problems of victims and differentiate victims reacting with more distress than others. This process led to the selection, modification, or creation of over 75 items related to psychological reactions among victims.

Five dimensions of psychological distress are measured by scales developed from these items -- fear, anxiety, stress, dismay, and social adjustment. Each scale item (with the exception noted below) was answered on a scale of 1 to 4.

1 = not at all
2 = a little
3 = a fair amount
4 = very much so
7 = not applicable
8 = don't know

Answers of 7 and 8 were considered nonresponses. Scale scores were calculated by averaging responses on the items that were answered.

Anxiety. The anxiety scale consists of 18 of the 19 items from the State portion of the State-Trait Anxiety Scale (STAI) (Speilberger, Gorsuch & Lushere, 1970). One item was dropped due to awkward wording. The middle two answer categories were changed to "a little" and "a fair amount" to be consistent with other items (replacing "somewhat" and "moderately so"). In addition, the temporal reference was changed by asking how the respondents have felt since the crime rather than how they feel now. The wording was changed between interviews to emphasize the reference to the crime. The purpose of the scale is to measure feelings of nervousness, discomfort, and tension.

First Interview:

Now I'd like to ask you about some particular feelings you may have felt since the crime/incident and you can tell me if the feeling applies to you or not. When I state a feeling, please answer with one of these responses, depending on how you have felt since the crime/incident [hand the respondent the four-point scale]. Okay?

Second Interview:

I'd like to ask you how you are feeling now as a result of the [assault, robbery, etc.]. We spoke about your feeling when we last talked several months ago. We are interested in how you feel now and whether you are currently experiencing any of the following feelings as a direct result of the crime/incident. When I state a feeling, please answer with one of the following four responses (you may want to jot these down as we will be using these responses for a number of questions):

9. Have you felt calm?

10. Have you felt secure?

11. Have you felt tense?

13. Have you felt at ease?

14. Have you felt upset?

15. Have you felt rested?

16. Have you felt anxious?

17. Have you felt comfortable?

18. Have you felt self-confident?

19. Have you felt nervous?

20. Have you felt jittery?

21. Have you felt "high strung"?

22. Have you felt relaxed?

23. Have you felt content?

24. Have you felt worried?

25. Have you felt over-excited and "rattled"?

26. Have you felt joyful?

27. Have you felt pleasant?

The scoring on the four-point scale was reversed for the positive items; i.e., calm, secure, at ease, rested, comfortable, relaxed, content, joyful, and pleasant so that in every case a high number is a negative reaction.

Fear. The twelve-item fear scale was based on the much longer Modified Fear Survey III (Veronen & Kilpatrick, 1980). The scale is designed to measure fear of situations or things that are similar to or suggestive of crime-related situations. Victims were asked:

Now I'd like to get your reactions to certain things and situations that might cause you to be afraid these days. When I mention some thing or situation, please tell me how much it frightens or disturbs you, according to the same four responses [repeat as needed]. Okay?

Are you disturbed by...

1. Parking lots?
2. Being in a car alone?
3. Guns?
4. Tough-looking people?
5. Watching violence on T.V. or at movies?
6. Feeling disapproved of?
7. Being in strange places?
8. Knives?
9. Walking on a dimly lit street?
10. Being alone at home?
11. Strangers?
12. Being alone on the street?

Several items were modified. For example, the MFS item -- are you afraid of being alone? -- was divided into several that mentioned specific circumstances.

Stress. The stress scale is intended to indicate physical symptoms of stress. The items were developed to measure symptoms frequently included in other stress scales.

Now I'd like to find out whether you're bothered now by certain feelings of discomfort since the crime/incident. I'll mention a problem of discomfort or adjustment and you can tell me how much of a problem it has been for you, using the same responses [repeat as needed].

1. Feeling faint or dizzy?
2. Feeling nervous or shaky inside?
3. Loss of appetite?
4. Nausea or upset stomach?

5. Trouble sleeping?

6. Trouble getting your breath?

7. Pains in your heart or chest?

8. Headaches?

9. Nightmares?

Social adjustment. The social adjustment scale is designed to reflect the behavioral problems victims may have returning to their normal daily activities.

Now I'd like to ask you some questions about your reactions to the crime/incident -- how do you think it affects you now -- using the same four responses [repeat as needed].

1. Are you having any difficulties going about your usual daily activities?

3. Are you cutting yourself off from friends?

4. Are you cutting down on the places or the number of times you go out socially?

5. Are you having problems in doing your work since we last spoke? What kinds of problems?

In addition, two questions were included on post-crime experiences.

As a result of the crime, did you...

3. Stay home more?

6. Lose time on the job?

The last two questions were answered yes and no (or plan to). A yes was recoded to a 3 (a fair amount) and a no to a 2 (a little) to keep the responses on a scale similar to the other items.

Dismay. The dismay scale measures general feelings of unhappiness and dissatisfaction. It is not designed to measure clinical depression. The items were created for this questionnaire to reflect the dismay many victims feel over having been victimized. Most of the items precede the anxiety scale items and are introduced by the same remarks.

1. Have you felt dissatisfied and bored?

2. Have you felt guilty?

3. Have you felt tired?

4. Have you felt sad?

5. Have you felt angry or resentful?

6. Have you felt vulnerable, that is, unable to control events in your daily life?

7. Have you lost interest in other people?

8. Have you felt embarrassed or ashamed?

A ninth item was drawn from a later section of the questionnaire:

2. Do you now blame yourself for what happened to you?

Scale Reliability

The scales developed for this study were subjected to item analysis to test their internal consistency reliability. The following table shows the mean, standard deviation, and Cronbach's alphas. The responses to each scale item are shown on the following pages.

TIME 1

Scale	Mean*	Standard Deviation	Standardized Item Cronbach's Alpha
Fear	2.24	.776	.88
Stress	2.10	.759	.84
Dismay	2.34	.620	.73
Social Adjustment	2.12	.888	.71

*Based on responses of the entire Time 1 sample of 323 victims.

FREQUENCY OF RESPONSES TO THE SCALE ITEMS:
FIRST AND SECOND INTERVIEWS

	TIME 1						TIME 2					
	Not At All	A Little	A Fair Amount	Very Much So	No Answer	Same As Before	Not At All	A Little	A Fair Amount	Very Much So	No Answer	Same As Before
Anxiety Scale												
Calm	111	50	66	27	1	3	29	45	85	97	2	0
Secure	135	52	43	28	0	0	27	48	91	90	2	0
Tense	32	56	55	114	0	0	104	93	26	33	2	0
At Ease	112	74	50	22	0	0	29	53	93	74	3	0
Upset	19	34	55	150	0	0	104	68	39	44	3	0
Rested	118	52	45	39	0	2	39	43	76	95	4	0
Anxious	49	58	63	86	1	1	114	79	26	36	3	0
Comfortable	95	73	62	26	0	2	18	36	107	94	3	0
Self-Confident	77	51	68	62	0	0	15	25	86	130	2	0
Nervous	30	63	62	103	0	0	122	82	25	27	2	0
Jittery	44	69	57	88	0	0	166	50	18	21	3	0
High Strung	74	47	55	81	0	1	181	37	13	23	3	1
Relaxed	114	73	49	21	0	1	27	46	97	86	2	0
Content	133	59	44	21	0	1	53	42	70	90	3	0
Worried	30	51	55	121	1	0	112	71	42	31	2	0
Overexcited	83	55	61	59	0	0	189	40	12	15	2	0
Joyful	145	53	37	22	1	0	31	52	92	80	2	1
Pleasant	118	65	51	23	1	0	27	45	95	89	2	0
Fear Scale												
Parking Lots	133	38	35	47	1	4	128	42	30	54	0	4
Being Alone in Car	146	41	27	34	5	5	146	44	23	39	2	4
Guns	99	27	27	81	1	23	89	37	28	88	0	16
Tough Looking People	101	44	51	58	1	3	80	67	41	60	0	10
Violence on TV or Movies	121	35	35	43	6	18	115	39	41	47	4	12
Feeling Disapproved Of	139	52	30	34	0	3	151	67	24	15	0	1
Being In Strange Places	95	63	43	39	2	11	101	67	24	15	0	1

FREQUENCY OF RESPONSES TO THE SCALE ITEMS:
FIRST AND SECOND INTERVIEWS

	TIME 1						TIME 2					
	Not At All	A Little	A Fair Amount	Very Much So	No Answer	Same As Before	Not At All	A Little	A Fair Amount	Very Much So	No Answer	Same As Before
Fear Scale (Con't.)												
Knives	122	31	24	67	2	12	114	29	37	70	0	8
Walking Alone On Dimly Lit Streets	35	34	36	106	4	43	43	33	34	124	4	20
Being At Home Alone	113	39	34	66	1	5	112	60	37	48	0	1
Strangers	85	60	50	58	0	5	85	83	35	53	0	2
Being Alone On The Street	64	39	31	94	1	29	77	53	29	88	2	9
Stress												
Faint Or Dizzy	165	26	31	34	1	1	242	11	2	2	0	1
Nervous or Shakey Inside	35	49	50	123	1	0	165	57	14	22	0	0
Loss Of Appetite	99	38	38	83	0	0	215	24	10	9	0	0
Nausea or Upset Stomach	120	39	37	62	0	0	228	14	5	11	0	0
Trouble Sleeping	67	52	34	105	0	0	167	38	30	22	0	1
Pains In Heart Or Chest	183	34	16	24	0	1	231	15	8	4	0	0
Trouble Getting Breath	202	23	15	17	0	1	221	19	11	7	0	0
Headaches	119	46	31	60	1	1	190	37	17	14	0	0
Nightmares	149	39	29	40	1	0	192	37	12	17	0	0
Dismay												
Dissatisfied or Bored	147	42	25	43	0	1	144	38	29	45	2	0

FREQUENCY OF RESPONSES TO THE SCALE ITEMS:
FIRST AND SECOND INTERVIEWS

	TIME 1						TIME 2					
	Not At All	A Little	A Fair Amount	Very Much So	No Answer	Same As Before	Not At All	A Little	A Fair Amount	Very Much So	No Answer	Same As Before
Dismay (Con't.)												
Guilty	156	54	20	28	0	0	219	32	4	1	2	0
Tired	59	44	37	115	1	2	155	36	28	36	3	0
Sad	49	60	53	96	0	0	108	74	38	35	3	0
Andry Or Resentful	28	21	36	173	0	0	61	78	53	64	2	0
Vulnerable	60	24	45	129	0	0	68	74	51	63	2	0
Lost Interest In Others	149	39	29	38	1	2	172	45	20	18	2	1
Embarasssed or Ashamed	125	47	33	53	0	0	185	45	10	16	2	0
Blame Self	161	61	19	16	1	0	205	46	4	3	0	0
Social Adjustment												
Difficulty With Daily Activities	84	52	36	86	0	0	178	39	32	9	0	0
Cut Yourself Off From Friends	177	33	28	19	1	0	215	23	9	11	0	0
Cut Down On Going Out Socially	138	26	32	55	4	3	164	39	23	30	0	2
Problems In Doing Work	66	40	27	28	97	0	66	40	27	28	97	0

	Yes	No	Plans	No Answer	Yes	No	Plans	No Answer
Stay Home More	107	149	1	1	102	155	0	1
Lose Time On Job	70	107	0	81	22	162	0	74

APPENDIX C

BLOCK REGRESSIONS OF PSYCHOLOGICAL DISTRESS SCALES ON SOCIODEMOGRAPHIC VARIABLES, SOCIAL SUPPORT, PRIOR LIFE STRESS, AND CRIME CHARACTERISTICS ABOUT ONE MONTH AFTER THE CRIME AND FOUR TO SIX MONTHS LATER

The conceptual framework for the study, described in Chapter 2, identifies several factors believed to affect the psychological response of victims. These factors include the characteristics of the crime, specifically its intrusiveness and severity. A second factor is the life stress experienced by the victim in the year before the crime. This is reflected in specific negative events and in general physical, financial, social, or emotional problems. A third factor is the amount of social support victims receive from family, friends, and co-workers. In addition, sociodemographic variation can affect victim distress levels.

As part of the multivariate analysis, the effect of each factor was examined separately by regressing the five psychological distress scales on the variables associated with each factor. A description of the variables and the scales is provided in Chapter 2 and in Appendix B. The tables in this Appendix show the standardized regression coefficients (Beta weights) that illustrate the unique relationship between each variable in a block or factor to each of the five distress scales. Finally, the variables are combined in one large model to show their combined effect on the psychological distress scales. The first six tables show the results from the first interview, about one month after the crime. The second six tables show the results from the interview four to six months later.

Results

About a month after victimization, sociodemographic variables explained between 5 and 13 percent of the variance in psychological distress (Table C1). The only highly significant variable is sex, a finding consistent with the analysis in Chapter IV showing generally higher distress among women than men. In addition, anxiety is lower among victims with incomes of $21,000 to $30,000 than among victims with very low incomes of $4,000 or less.

Crime characteristics also explained a modest percentage of the variance at the first interview, from 6% for fear to 17% for dismay (Table C2). The major factor appears to be the intrusiveness of the crime, a variable that was highly significant in all five equations. In addition, victims who were seriously injured had more social adjustment problems and stress symptoms than those with no injury.

Victim stress in the year before the crime is a significant factor in all five aspects of psychological distress (Table C3). The number of negative life events is related to fear, dismay, and problems in social adjustment. Serious social,

emotional, financial, or physical problems were related to all symptoms except fear. Overall, life stress appears less related to fear than to other aspects of psychological distress.

Two models of social support were tested. The first model specifies psychological distress as a function of household living arrangements which is used as an indicator of access to family support and reports of assistance from family, friends, and co-workers. This model indicates almost no relationship between levels of social support and psychological distress (Table C4). The second model looked not at the source of the reported assistance (e.g., family, friends, and co-workers), but, rather, at the number of sources of assistance using a variable (helpers) that counts the number of sources from which the victim says he or she received help. This model also found little, if any, relationship between social support and distress levels (Table C5).

When the psychological scales are regressed on variables from all four factors or blocks, the results are generally consistent with the block models (Table C6). Victims who are female, those with higher levels of stress in the previous year, and those who were seriously injured have higher levels of psychological distress than those without these attributes. Somewhat surprisingly, the strength of the relationship between the intrusiveness of the crime and distress is greatly diminished. Indeed, intrusiveness of the crime contributes independently only to the levels of dismay and anxiety when the other factors are controlled.

TABLE C1
Standardized Regression Coefficients
Relating Psychological Distress
to Demographic Characteristics[Δ]

Time 1

	Fearful	Anxiety	Stress	Dismay	Social Adjustment
Age					
30 to 49	-.124	.016	-.027	-.070	.055
50 or Older	-.127	-.077	-.113	-.075	-.077
Sex	.285***	.221**	.137*	.287***	.178**
Working	-.095	-.077	-.057	-.088	-.131
Education					
Some College	-.060	-.090	-.126	-.046	-.001
College Graduate	.092	.053	-.068	.029	.162
Income					
$5,000-20,000	.046	-.146	-.132	-.111	.083
$21,000-30,000	-.068	-.199*	-.173	-.165	.042
$31,000 or more	.054	-.035	-.041	-.150	-.029
R^2 adjusted	.13	.09	.06	.12	.05
degrees of freedom	215	222	223	226	226
Significance of F	.001	.001	.01	.001	.05

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

[Δ]The categorical variables were converted to dichotomies and entered as dummy variables. The omitted categories were: age = under 30; sex = male; working = not working; education = 12 grades or less; income = $4,000 or less.

TABLE C2
Standardized Regression Coefficients
Relating Psychological Distress
to Crime Characteristics[A]

Time 1

	Fear	Anxiety	Stress	Dismay	Social Adjustment
Weapon	-.006	-.026	.059	-.112	-.048
Some Injury	.048	-.024	.104	.150*	.138
Serious Injury	.013	-.048	.232***	.123	.234***
Previous Victim	.055	.156*	.074	.089	.058
Crime	.254***	.258***	.238***	.321***	.188**
R^2 adjusted	.06	.08	.12	.17	.10
degrees of freedom	219	226	227	230	230
Significance of F	$p<.01$	$p<.001$	$p<.001$	$p<.001$	$p<.001$

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

[A] Categorical variables were converted to dichotomies and entered as dummy variables. The omitted categories were: injury = none; crime = robbery/burglary.

TABLE C3
Standardized Regression Coefficients
Relating Psychological Distress
to Previous Stress

Time 1

	Fear	Anxiety	Stress	Dismay	Social Adjustment
Life Stress	.152*	.041	.047	.176**	.211**
Past Year Problems	.132	.305***	.353***	.263***	.176**
R^2 adjusted	.04	.09	.13	.12	.09
degrees of freedom	222	229	230	233	233
Significance of F	$p < .01$	$p < .001$	$p < .001$	$p < .001$	$p < .001$

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

TABLE C4
Standardized Regression Coefficients
Relating Psychological Distress
by Victims' Social Support: Model 1[Δ]

Time 1

	Fear	Anxiety	Stress	Dismay	Social Adjustment
Living Arrangements					
With Others	-.016	-.050	-.041	.003	-.098*
Spouse	-.130	-.033	-.093	-.080	-.156
No Family Help	.098	.092	.025	.069	.043
No Friend Help	.054	.005	.045	.008	-.015
No Worker Help	-.009	-.043	-.026	-.074	-.008
R^2 adjusted	.01	.00	.00	.00	.00
degrees of freedom	219	226	227	230	230
Significance of F	ns	ns	ns	ns	ns

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

[Δ]Categorical variables were converted to dichotomies and entered as dummy variables. The omitted categories were: living arrangements = alone.

TABLE C5
Standardized Regression Coefficients
Relating Psychological Distress
to Victims' Social Support: Model 2[Δ]

Time 1

	Fear	Anxiety	Stress	Dismay	Social Adjustment
Living Arrangements					
With Others	-.015	-.044	-.042	.006	-.195*
Spouse	-.119	-.014	-.091	-.063	-.146
Number of Helpers	.086	.027	.028	-.004	.009
R^2 adjusted	.01	.00	.00	.00	.01
degrees of freedom	221	228	229	232	232
Significance of F	ns	ns	ns	ns	ns

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

[Δ]Categorical variables were converted to dichotomies and entered as dummy variables. The omitted categories were: living arrangements = alone.

TABLE C6
Standardized Regression Coefficients
Relating Psychological Distress
to Demographic Characteristics,
the Victimization Experiences,
Stress and Social Support[Δ]

Time 1

	Fear	Anxiety	Stress	Dismay	Social Adjustment
Age					
30 to 49	-.093	.015	-.023	-.043	.090
50 or Older	-.083	-.085	-.093	-.038	-.031
Sex	.274***	.187**	.193**	.229***	.172*
Working	-.137*	-.099	-.060	-.085	-.130*
Education					
Some College	-.072	-.079	-.100	-.032	-.018
College Graduate	.097	.080	-.040	.050	.159*
Income					
$5,000-20,000	.087	-.079	-.033	-.055	.132
$21,000-30,000	.017	-.117	-.053	-.080	.113
$31,000 or more	.086	.028	.056	-.098	.033
Living Arrangements					
With Spouse	-.028	.087	-.023	.048	-.079*
With Others	-.042	-.082	-.066	-.009	-.193
Social Support	.169*	.127	.067	.114	.104
Past Year Problems	.120	.244***	.331***	.163*	.149
Stressful Life Events	.089	.046	-.004	.147*	.191
Weapon	.032	.032	.114	-.064	.014
Some Injury	.021	-.003	.056	.109	.113
Serious Injury	.061	-.029	.275***	.147	.218**
Previous Violent Victimization	.059	.117	.025	.069	.037
Intrusiveness of Crime	.118	.150*	.098	.203**	.128
R^2 adjusted	.18	.19	.25	.27	.22
Degrees of freedom	205	212	213	216	216
Significance of F	.001	.001	.001	.001	.001

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

[Δ]Categorical variables are converted to dichotomies and entered as dummy variables.

The regression analyses were repeated with the psychological distress scales measured four to six months after the first interview. As Table C7 shows, the strong gender differences in psychological distress are now apparent in predicting the victim's fear and anxiety. Women are still more fearful and anxious than men some months after the crime. Victims with incomes between $5,000 and $20,000 experience lower levels of anxiety and stress than victims earning $4,000 a year or less, and social adjustment problems are less prevalent among victims with incomes of $21,000 to $30,000 than among victims earning $4,000 or less.

The relationship between crime characteristics, particularly serious injury and the intrusiveness of the crime, has declined by the second interview. Table C8 shows that a significant relationship between intrusiveness and the symptoms of fear, and social adjustment problems persist to this time, but there is no longer any significant relationship between serious injury and psychological distress. What does persist is the significant relationship between previous victimization and anxiety. That is, victims who have previously been the target of a criminal act tend to remain anxious for some time following subsequent victimization.

Stress in the year prior to the crime, in the form of general physical, financial, social, and/or emotional problems, has a continuing influence on psychological distress (Table C9). In particular, victims who have previous life problems tended to have higher levels of anxiety, stress, and dismay.

In contrast, there is no evidence that the amount of social support available to victims was related to any of the measures of psychological distress (Tables C10 and C11).

When variables from all four blocks or factors are included in a single model (Table C12), several variables that were significant in the block models are no longer significant. That is, when examined as part of this larger group of variables, they no longer have a unique or independent relationship with the psychological distress scales. The "dropouts" include: 1) the relationship between fear and the intrusiveness of the crime; 2) the relationship between anxiety and income, and anxiety and previous victimization; 3) the relationship between stress and past year problems; 4) the relationship between dismay and past year problems; and 5) the relationship between social adjustment problems and income. What remains are few significant variables explaining relatively little of

the variance. Beyond the tendency of women to be more fearful and anxious than men, there are a few clearcut findings on the factors associated with psychological distress some months after the crime.

TABLE C7
Standardized Regression Coefficients
Relating Psychological Distress
to Demographic Characteristics[Δ]

Time 2

	Fearful	Anxiety	Stress	Dismay	Social Adjustment
Age					
30 to 49	-.079	.070	.085	.071	.007
50 or Older	-.040	.033	.035	.087	-.025
Sex	.355***	.124**	.074	.134	.080
Working	-.051	-.078	-.120	-.020	-.056
Education					
Some College	-.060	-.075	-.134	-.059	-.111
College Graduate	.039	-.017	-.045	.054	-.007
Income					
$5,000-20,000	.056	-.216*	-.258**	-.141	-.172
$21,000-30,000	-.008	-.164	-.160	-.099	-.205*
$31,000 or more	.027	-.044	-.079	-.037	-.070
R^2 adjusted	.12	.03	.06	.01	.02
degrees of freedom	216	224	226	226	226
Significance of F	.001	ns	.01	ns	ns

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

[Δ] Categorical variables are converted to dichotomies and entered as dummy variables. The omitted categories were: age = less than 30; sex = male; working = not working; education = 12 grades or less; income = $4,000 or less.

TABLE C8
Standardized Regression Coefficients
Relating Psychological Distress
to Crime Characteristics[Δ]

Time 2

	Fear	Anxiety	Stress	Dismay	Social Adjustment
Weapon	-.010	.000	.004	-.070	-.020
Some Injury	.085	.045	.141	.123	.065
Serious Injury	.036	.025	.095	.082	.070
Previous Victim	.075	.145*	.087	.073	.056
Crime	.238***	.118	.084	.097	.210**
R^2 adjusted	.06	.02	.02	.03	.05
degrees of freedom	220	228	230	230	230
Significance of F	p .01	ns	ns	ns	p .01

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

[Δ]Categorical variables were converted to dichotomies and entered as dummy variables. The omitted categories were: injury = none; crime = robbery/burglary.

TABLE C9
Standardized Regression Coefficients
Relating Psychological Distress
to Previous Stress

Time 2

	Fear	Anxiety	Stress	Dismay	Social Adjustment
Life Stress	.115	-.018	.001	.028	.108
Past Year Problems	.090	.237***	.220**	.148*	.111
R^2 adjusted	.02	.05	.04	.02	.02
degrees of freedom	223	231	233	233	233
Significance of F	$p < .05$	$p < .01$	$p < .01$	ns	$p < .05$

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

TABLE C10
Standardized Regression Coefficients
Relating Psychological Distress
by Victims' Social Support: Model 1[Δ]

Time 2

	Fear	Anxiety	Stress	Dismay	Social Adjustment
Living Arrangements					
With Others	-.013	-.141	.001	-.110	.020
Spouse	-.118	-.094	.030	-.096	-.040
No Family Help	.071	-.049	-.050	-.061	.022
No Friend Help	.024	.152	.099	.097	.043
No Worker Help	-.046	-.096	-.125	-.019	-.093
R^2 adjusted	.00	.02	.00	.00	.00
degrees of freedom	220	228	230	230	230
Significance of F	ns	ns	ns	ns	ns

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

[Δ]Categorical variables were converted to dichotomies and entered as dummy variables. The omitted categories were: living arrangements = alone.

TABLE C11
Standardized Regression Coefficients
Relating Psychological Distress
to Victims' Social Support: Model 2[Δ]

Time 2

	Fear	Anxiety	Stress	Dismay	Social Adjustment
Living Arrangements					
With Others	-.010	-.149	-.006	-.118	.019
Spouse	-.104	-.109	.021	-.114	-.033
Number of Helpers	.027	.013	-.042	.019	-.019
R^2 adjusted	.00	.00	.00	.00	.00
degrees of freedom	222	230	232	232	232
Significance of F	ns	ns	ns	ns	ns

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

[Δ]Categorical variables were converted to dichotomies and entered as dummy variables. The omitted categories were: living arrangements = alone.

TABLE C12
Standardized Regression Coefficients
Relating Psychological Distress
to Demographic Characteristics,
the Victimization Experiences,$^{\Delta}$
Stress and Social Support

Time 2

	Fear	Anxiety	Stress	Dismay	Social Adjustment
Age					
30 to 49	-.044	.084	.092	.095	.031
50 or Older	.019	.050	.057	.129	.009
Sex	.370***	.139**	.092	.118	.044
Working	-.064	-.108	-.123	-.045	-.048
Education					
Some College	-.072	-.088	-.131	-.076	-.115
College Graduate	.030	-.024	-.030	.045	.000
Income					
$5,000-20,000	.095	-.150	-.213*	-.097	-.160
$21,000-30,000	.070	-.078	-.106	-.029	-.175
$31,000 or more	.048	.011	-.030	-.002	-.059
Living Arrangements					
With Spouse	-.032	-.167	-.032	-.120	-.025
With Others	-.041	-.072	.048	-.084	.026
Social Support	.105	.126	.070	.128	.056
Past Year Problems	.032	.161*	.137	.063	.019
Stressful Life Events	.057	-.003	.026	.034	.109
Weapon	.059	.049	.063	-.027	-.002
Some Injury	.078	.025	.126	.126	.049
Serious Injury	.110	.039	.098	.097	.072
Previous Violent Victimization	.110	.122	.055	.066	.038
Intrusiveness of Crime	.101	.059	.031	.076	.165*
R^2 adjusted	.15	.08	.08	.04	.04
degrees of freedom	206	214	216	216	216
Significance of F	.001	.01	.01	ns	ns

***p<.001
**p<.01
*p<.05
$^{\Delta}$Categorical variables were converted to dichotomies and entered as dummy variables.