Reactions of Female and Male Victims of Rape or Robbery[1]

Final Report

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I. Abstract

There were several purposes of this project. The study examined the long term effects of two types of victimization, rape and robbery. Reactions of male and female robbery victims were compared. Also studied were a number of variables which might affect recovery. Finally, the effects of participation in the criminal justice system on psychological functioning of victims were examined. As a continuation of a prior grant (NIMH grant no. RO1 MH 37296) this project assessed victims of rape and robbery at five postcrime intervals (1, 3, 6, 12, and 18 months), in order to compare the trauma of rape and robbery victims and to compare the reactions of male and female robbery victims. Among the data being collected was information on participation in the criminal justice system. All participants completed a computer-administered battery of psychological tests. A number of other variables examined as contributors to victims' reactions were: prior history of victimization, precrime psychological problems, assault variables, within-assault victim reactions, social support, postcrime behavioral responses, and treatment after the crime. Among the findings were that, overall, many of the victims exhibited clinical levels of distress following the crime. The greatest amount of recovery occurred between one and three months postcrime and then stabilized. Rape victims reported significantly more problems on most measures than robbery victims. However, when the effects of assault variables and within-assault victim reactions were eliminated there were very few differences between the two groups. Within each crime group it was found that all of the variables which were examined did influence the reactions and recovery of robbery victims. Rape victims were most affected by within-person variables: history of victimization, within-assault reactions, and postcrime behavioral responses following the crime. There were significant differences between male and female robbery victims on a few of the measures at one month postassault. Beyond the first session, the only measures on which there were differences were those which probably reflect preexisting sex differences. Although assault variables were not very predictive of reactions or recovery in male robbery victims, the rest of the variables examined in this study were found to be associated with reactions and recovery of male robbery victims. Examination of subjects who participated in the criminal justice system with those who did not, revealed essentially no differences between the two groups. Findings are discussed within the context of cognitive-behavioral theory.

II. Literature Review and Research Questions.

A. Importance of Comparing Rape and Robbery Victims.

There have been three longitudinal studies of the psychological aftermath of rape. In South Carolina, Kilpatrick and Veronen (1982) assessed victims of rape and a matched nonvictim group at regular intervals for several years, particularly focusing on fear and anxiety reactions. Calhoun and Atkeson (1981) also compared rape victims with nonvictims for one year following their assaults. Their study focused somewhat more strongly on depressive reactions. Most recently, under a grant from NIMH, the Principal Investigator of this project compared the reactions of rape with robbery victims for six months postcrime. One of the purposes of that study was to determine if the reactions observed in rape victims are due to being sexually assaulted or are due to the trauma of facing imminent death. Rape and robbery victims might also experience somewhat different patterns of reaction and recovery because of the greater social stigma that rape carries.

From a theoretical perspective, all three studies have questioned and examined an assumption that was made by early researchers and clinicians in the field, that victims' reactions are explainable by crisis theory (Burgess & Holmstrom, 1974). Crisis theory (Caplan, 1964) proposes that following a traumatic event, the victim experiences a disorganization in functioning because the event exceeds the person's ability to cope appropriately. Crisis theory suggests that within 4-6 weeks, the crisis is resolved either successfully through new adaptive coping or unsuccessfully through maladaptive coping strategies. Either way, the person should be symptom-free in a few months.

Longitudinal studies have not found this to be the case. While some symptoms like depression, other disruptions of mood, and most types of social adjustment usually improve by three months postassault (Atkeson, Calhoun, Resick & Ellis, 1982; Kilpatrick, Veronen & Resick, 1979; Resick, Calhoun, Atkeson, & Ellis, 1981) fear and anxiety problems may continue indefinitely (Calhoun, Atkeson & Resick, 1982; Kilpatrick, Resick & Veronen, 1981). One year after being raped 35% of a victim group scored more than one standard deviation above a control group mean on

the Modified Fear Survey (Calhoun et al., 1982). Kilpatrick and Veronen (1983) found differences in fear and anxiety between victims and nonvictims for at least three years postcrime.

A specific anxiety disorder which may be prevalent in victims of trauma such as crime victims is post-traumatic stress disorder (PTSD). In addition to anxiety, PTSD symptoms include intrusive recollections of the event and attempts to avoid reminders of the incident. In a random survey of lifetime victimization among women, Kilpatrick et al. (1987) found that almost 60% of the rape victims they interviewed had met the criteria for PTSD and, although their crimes had occurred many years previously on the average, 16% of the rape victims currently met the criteria. This percentage was in contrast to the 3.4% of victims of crimes other than rape.

Other researchers have observed chronic anxiety-related problems with sexual functioning (Becker, Abel & Skinner, 1979; Becker, Skinner, Abel & Treacy, 1982; Burgess & Holmstrom, 1979; Ellis, Atkeson & Calhoun, 1981; Feldman-Summers, Gordan & Meagher, 1979; Miller, Williams & Bernstein, 1982). Clearly crisis theory is not sufficient to explain these findings.

Cognitive-behavioral theory appears to fit the data better. Cognitive-behavioral theory proposes that at the time of the attack, the victim experiences a strong physiological terror reaction. This sympathetic nervous system reaction is so strong that any stimuli which are present during the assault become conditioned stimuli which can later trigger fear reactions, even when the victim is in a safe situation. Being alone, being outside when it's dark, and sudden noises would be very typical stimuli present in an attack situation which could later trigger fear reactions. Because many of these cues are avoidable, the rape victim is likely to extend and exacerbate the classically conditioned fear reaction through avoidance learning. If a rape victim becomes frightened whenever she is alone or with men, she then attempts to reduce her fear by arranging her environment so that these stimuli do not occur. This operant avoidance promotes the development of phobias and generalized anxiety because, if left untreated, the victim of rape has no opportunity to learn that these cues do not necessarily indicate imminent danger and the cues do not extinguish through nontraumatic exposure.

Cognitive-behavioral theory also assumes a cognitive component in learning. Fear, depression and loss of self-esteem might be expected to be problems for the rape victim because 1) through the unpredictability of attack and threat of death, the rape victim will feel that she has lost control over her life and 2) it is to be expected that rape victims will carry many of the same beliefs regarding rape that society in general holds. She may believe that she is a less worthwhile person because she has been "defiled". She may believe she was attacked for some reason, such as poor judgement or provocative behavior on her part, or to punish her sins. These beliefs will then affect how she views herself and interacts with others.

Cognitions also affect the extent of the fear reaction and the cognitive symptoms of post-traumatic stress disorder (Bandura, 1969; Foa & Kozak, 1986; Lang, 1977). While awareness is not necessary for conditioning to occur, in most cases classical conditioning is mediated through covert symbolic activity. The information processing model of Foa and Kozak (1986) and Lang (1977) posit that fear is stored in the memory as a network that includes information about the stimulus situation, physiological and behavioral responses and interpretive information regarding the meaning of stimuli and responses. This fear network is viewed as a program to stimulate escape and avoidance behavior.

Reiss and McNally (1985) speak to the meaning of the event with expectancy theory. They propose that there are two kinds of expectancies that help maintain fear and avoidance, danger and anxiety expectancies. A danger expectancy is the belief that a given stimulus is a reliable signal of environmental harm while an anxiety expectancy is the anticipation that encountering a specific stimulus will produce anxiety even when the stimulus is known to be harmless. Even without avoidance behavior, extinction is slow if a person still believes she/he is in danger (Bandura 1969).

Therefore, according to cognitive-behavioral theory, there should be few differences in the fear reactions of female rape and robbery victims because of the conditioned nature of fear in a life-threatening situation. The one exception would be sexual functioning/dysfunctions. Rape victims would be expected to exhibit more anxiety-related, sexual dysfunctions and less sexual activity because of the pairing of terror with sexual contact. There might be differences however, in the way that robbery and rape

victims respond cognitively and are treated by others because of the greater societal stigma surrounding rape. Rape victims might well exhibit greater problems with depression and self-esteem.

The findings of the NIMH portion of the Resick project were equivocal. Fear, as measured by the Modified Fear Survey, was not different between rape and robbery victims except on those scales that would be predicted by classical conditioning, weapons fears in the robbery victims and sexual fears in the rape victims. However, rape victims appeared to have more symptoms of post-traumatic stress disorder as measured by the Impact of Event Scale. On the Brief Symptom Index there were no differences between rape and robbery victims at one month or six months postcrime, but there were differences at three months. It appears that while their initial reactions were similar, rape victims took longer to recover than robbery victims.

Rape victims scored higher than robbery victims at three months postcrime on interpersonal sensitivity, depression, and anxiety. Rape victims scored higher than robbery victims on the Beck Depression Inventory through the six month session.

Finally, some regression analyses were conducted to determine if prior victimization, assault variables, or the victims' reactions during the crime affected their recovery. Although the findings are too numerous to detail here, it appeared that a history of victimization was predictive of post-traumatic stress disorder reactions, particularly in the robbery victims. At one month postcrime, the set of historical variables explained about a third of the variance and at six months explained about half of the variance in IES scores.

In a separate set of regression analyses, assault variables, factors that pertained to the amount of threat and violence used against the victim, as a group accounted for 29% of the variance in the IES avoidance subscale at one month postcrime and 51% at six months postcrime. The IES intrusion subscale was significantly predicted by the set of assault predictors only at the six month session but accounted for 41% of the variance. With regard to the victims' within-assault reactions, the set of variables predicted symptoms such as nightmares and flashbacks at session one ($R2=.25$) and avoidance at six months ($R^2=.58$).

The purpose of the continuation grant was to compare rape and robbery victims' reactions using a larger sample and extending the study period to include a 12 and 18 month assessment. A larger sample may help reduce some of the equivocal results or clarify the pattern of findings. Also, in addition to the regression analyses on the three sets of variables mentioned above, some other potentially important intervening variables were examined: precrime psychological problems, postcrime counseling, social support, the victims' postcrime behavioral responses and participation in the criminal justice system. These comparisons and analyses should help explain not only whether rape victims differ in their reactions to robbery victims but what variables are important in predicting who will have greater trauma reactions and what variables affect recovery.

B. Importance of Comparing Male and Female Victims.

The most important reason for comparing the reactions and recovery of male and female robbery victims is simply that it has not been done before. The bulk of the victimization literature has focused on female victims. Up until the current project no other research has examined the reactions of male crime victims in any depth. The paucity of research on the reactions of men gives no clue as to what to expect and no theories have been forthcoming. However, women generally tend to exhibit more fear than men, and women are more likely to be taught to fear physical attack and rape than men. It could be hypothesized that women would develop stronger trauma reactions to assault than men because they have been sensitized to the fear prior to the crime.

Men on the other hand, may be more likely to interpret their physiological arousal as anger rather than fear and to suppress actively any classically conditioned reactions later because of differential training in the meaning of violence. Therefore, it might be hypothesized that women will experience more severe and long lasting fear reactions in response to assault.

The purpose of the original grant, for which this project is a continuation, was to begin to examine these possibilities by comparing male and female robbery victims. The findings after data collection from 1, 3, and 6 months postcrime appear to support a cognitive-behavioral theory. Overall, the reactions of men and women were more similar than they were different. In most of the measures of

symptomatology, there were no differences between the two groups. However, based on the Modified Fear Survey, the findings of the comparison of female and male robbery victims were as predicted with regard to fear reactions; female subjects reported greater fear across the six months of assessment.

There were also some unexpected findings. Male robbery victims exhibited more problems with interpersonal sensitivity and self-esteem than female robbery victims at the six month assessment session. One possible explanation is that there is a greater social stigma perceived by male victims. Victimization is incompatible with the traditional male sex role. Therefore, negative cognitions about their experience may affect men's view of themselves and their interactions with others.

Another surprising finding was that, rather than suppressing classical conditioning, anger appeared to facilitate it. It was found that, among male robbery victims, those who experienced more anger during the crime were more likely to have problems with fear and anxiety later. Apparently, any kind of arousal, whether anger or fear, will facilitate classical conditioning and subsequent fear reactions. An important goal of this continuation grant was to determine if the findings of the first project continued with the larger sample size and across another year of assessment. As with the rape and robbery comparison, a number of secondary analyses were also conducted to determine what variables influence reactions and recovery in male robbery victims.

C. Importance of Studying Victims' Reactions to Participation in the Criminal Justice System.

In an eloquent speech to the National Conference of the Judiciary on The Rights of Victims of Crime (1983), Assistant Attorney General Lois Haight Herrington spoke of her legal training in which the victims of crime were treated as no more than evidence. All of the focus of the criminal justice system had been on criminals and their rights, to the exclusion of the rights of victims (Sparks, 1982). After hearing thousands of hours of testimony, the President's Task Force on Victims of Crime determined that "the neglect of crime victims is a national disgrace" (Herrington, p.vii). The Task Force heard again and again how stressful participating in the criminal justice system can be. One victim stated, "People have to realize that

emotional scabs are constantly being scraped off as you appear time after time in court" (p. 75).

Considering that the victim of crime should be an essential concern of the criminal justice system and that victim cooperation is the backbone of successful prosecution, it is important that we understand what effect participation in the criminal justice system has on the victim. Unfortunately, while the Task Force and a few other researchers (Holmstrom & Burgess, 1983; Kelly, 1984) have documented reactions of victims to the system (ie. their criticisms and concerns), there has been little research to investigate the impact of participation on psychological functioning. One cannot necessarily conclude that because many victims do not like the way they are treated during criminal prosecution that the process has an adverse effect on their psychological functioning. While participation might have an adverse effect with regard to fear, anxiety, depression or self-esteem, it could also be the case that these areas of functioning might benefit from participation.

If crime victims receive counseling or therapy as a result of their contact with criminal justice practitioners (via referrals to a victim assistance agency), or receive appropriate social support throughout the process, they may develop better coping skills than if they had not had contact with such agencies. It is an empirical question that has not been examined sufficiently. One of the major purposes of the proposed project is to compare the psychological reactions and recovery of those who participate in the criminal justice system with those who do not. In addition to psychological symptoms, possible differences in social support and work adjustment will also be examined.

None of the studies reviewed earlier examined the effect of legal involvement on victim recovery. However, in their analysis of phobic cues, Calhoun et al. (1982) found that at the 2, 4, 8 and 12 month postrape assessment periods, testifying in court was always in the top five most fearful cues. At the 12 month assessment, it caused the greatest fear in victims out of 120 fear items on the Modified Fear Survey. The courtroom situation could be highly traumatic for several reasons. There are a number of very potent cues during the trial: the assailant, the weapon used, clothing, and photographs or other evidence from the crime scene. The victim must relive the attack in the presence of those cues while having her/his credibility

and integrity attacked and questioned. Therefore, problems with anxiety, depression and self-esteem could be exacerbated.

On the other hand, participation in the criminal justice system could be therapeutic if accompanied by appropriate social support by friends, family, victim service advocates or therapists. It might be possible for the victim to desensitize to fearful cues; to regain a sense of control and self-esteem through participation. Which of these outcomes is typical now and what variables affect psychological outcomes are not currently known.

There has been only one study that has examined the effects of participating in the criminal justice system. Cluss, Boughton, Frank, Stewart, and West (1983) compared rape victims who participated in the criminal justice system with those who either were unable to participate or who did not want to participate in the criminal justice system. They found that there were no differences in social support or depression either initially or at six months postcrime. At 12 months there was a difference in self-esteem, with those who were prosecuting having higher self-esteem. Unfortunately, there were two major problems with the study. One was that the women had not completed their participation in the criminal justice system, and the other was the number of t-tests that were conducted. The sole finding of the study could have been the result of chance alone.

One of the purposes of the proposed project is to examine whether there are any differences in reaction or recovery between those people who complete the criminal justice system process and those who do not participate at all. At this point it is not possible to predict which way participation might affect victim reactions. Appearing in court could be psychologically damaging, therapeutic or have no effect at all.

III. Methodology

A. Participants

1. Participant sampling, participation rates.

For the original NIMH grant upon which this study is based, 1605 introductory letters were sent to potential participants between July 1, 1983 and February 28, 1985. The letters stated that we might be calling them to request their participation. Of the initial 1605, we attempted to contact but never reached 658 (41%) and we did not attempt to call another 482 people (30%) because they had no phones, we received the police reports too late, they were robbery victims who were older than our sample of rape victims, or their numbers were long distance. Participation rates are based on the people we actually contacted by telephone (we sent letters to people with no telephones asking them to call us. Very few did call but those who did are incorporated with those we contacted). A total of 465 people were contacted. Of those, 111 declined to participate (24%), 18 (4%) were determined to be inappropriate based on the phone call (not lucid or couldn't understand explanation of phone call), 96 (21%) agreed to participate and were scheduled but didn't show up, and 240 were scheduled and came in for at least one session. Therefore the participation rate, those who actually came in for at least one session out of those who were contacted, was 52%.

Since these statistics were calculated, some additional people were included in the project. There was a period of time after we closed out the NIMH sample to ready it for analysis, and before the NIJ project began, in which we continued to recruit new participants into the project. The final sample size at session one was 274, including 75 rape victims, 91 female robbery victims and 108 male robbery victims. We also attempted to recruit samples of subjects for the three groups who we had not contacted earlier to see if they would be interested in participating at 12 or 18 months postcrime. The reason for this delayed sample was to determine the effect of repeated testing on the participants in the main sample. Not enough rape victims participated at these single-test sessions to analyze so they have not been included. At 12 months 19 robbery victims participated and at 18 months another 19 participated. Therefore, the total sample for this project was 312. These numbers include

participants for whom we have "good" data (they did not have too much missing data and passed the validity checks).

With regard to the issue of sampling, the only variable we attempted to control for was the age of the robbery victims. Our initial examination of Daily Crime and Happenings reports indicated that robbery victims were somewhat older on the average than rape victims. Because we did not want the age variable to confound the study of reactions to different types of crime, we only sent letters to "older" robbery victims (over 35) when an older rape victim participated in the project. Therefore, this study compares robbery victims to rape victims without confounding the age factor. However, generalizations regarding the effects of robbery must be limited to younger victims, rather than the entire population of robbery victims.

2. Population comparisons.

In order to determine if our sample was similar in demographics to the population from which the sample was drawn, two comparisons were made. The sex, age, and race, and crime distribution of adult rape and robbery victims were coded from Daily Crimes and Happenings Reports from the three police departments participating in the study for the four months that fell during the project period. A total of 727 rapes (9%), robberies (91%) and rape/robberies (1%) were reported during that period. Of the total crimes, 44.7% of the victims were male and 54.5% were female and the sex of 0.8% was unknown. Thirty-six per cent were white, 58% were black and the race of 6% was unknown. The four month adult population sample ranged in age from 17 to over 65. Twelve percent of the sample fell in the age range from 17-20, 36% were 21-30, 16% were 31-40, 12% were 41-50, 20% were over 50, and the age of 4% was unknown.

First, this coded sample of the population was compared to the study sample collected during that same four month period by means of Chi-Square analyses. Unfortunately, the validity of the analyses is questionable because data in the cells of the study sample were so sparse. However, it was found that there was a sex difference between the two samples, Chi^2 (2) = 7.6, $p < .05$. The study sample during that period had more female victims (79%) than the population sample. There was also a significant difference in the age distribution of the samples, $Chi^2(10) = 23.9$, $p < .01$. Of the study sample, 79% were under 30, 18% fell between 31-40, and only 3% were over 40. This difference is

not surprising since potential robbery participants over 35 were only contacted when rape or rape/robbery victims over 35 participated. There was not a significant difference in the racial composition of the two samples or the percentage falling under each crime category.

The second comparison was to compare the four months of crime reports with the sample of the entire NIMH study sample. The validity of this method requires the assumption that the demographics from the four months of crime reports is representative of the population as a whole. However, by analyzing the entire study sample, the chi-square tests may have greater validity because of the larger sample size. Among the findings of this comparison, there was no sex difference between the study sample and the population comparison. There was an age difference between the two samples (Chi^2 (9, N=959) = 64.27, p< .0001). Again, the difference is due to a greater number of victims falling in the older age category in the population sample. There were no differences in racial distribution but there was a difference in crime classification (Chi^2 (2, N=958) = 99.1, p< .0001). This study had proportionally more rape and rape/robbery victims than the population sample. Of course, this is not surprising because the study was attempting to fill the cells equally rather than proportionally.

3. Demographic characteristics.

The demographic analyses were based on the analyzable data from session one, a sample size of 274. (See description of analyzable data process). Chi-square or t-test analyses were conducted to compare male and female robbery victims and to compare rape and female robbery victims. The groups were compared on age, racial composition, marital status, years of school, highest academic degree earned and employment pattern. Differences were found within both comparison groups on marital status. In order to obtain valid Chi-square results, it was necessary to collapse all marital categories into single vs. married. In the male vs. female robbery comparison, men were more likely to be single than women, Chi^2 (1, N=199) = 7.4, p<.01. In the comparison of the female groups, there was also a significant Chi square, Chi^2 (1, N=166) =8.96, p < .01. Rape victims were more likely to be single than robbery victims. While male and female robbery victims did not differ on any other demographic variables, rape and robbery victims differed on years of schooling. Rape

victims reported more years of schooling than robbery victims.

For the Chi-square analyses, Table 1 indicates the percentages of participants from each group at session one who fell into the various demographic categories. Regarding years of schooling, t-tests were performed; thus, for this measure, Table 1 reports means and standard deviations.

4. Descriptive analysis of incidents

a) Female rape vs. robbery victims. Table 2 presents the distribution and Chi-square analyses of the assault variables for the two groups of female victims at session one. The variables analyzed on which there were no differences between groups were: acquaintanceship status with the perpetrator (76% strangers), whether or not the victim was gagged (95% no), the length of time before the victim told someone of the crime (83% within the first 30 minutes), and treatment by police (70% were helpful and understanding, 11% were matter-of-fact, and the remaining 18% were more negative). There were differences on the number of perpetrators, the number of people present, where the crime occurred, whether threats were used, or weapons used. There were also differences whether the victim was restrained with arms or legs, restrained with tape, rope or pillow, length of crime, whether they were injured and whether and how they were treated by medical personnel.

Robberies were more likely to have more than one perpetrator and more than one other person present. Robberies were more likely to take place away from home and include the use of a gun. Rapes were most likely to occur in the woman's own home by a single assailant who threatened her, brandished a knife, and restrained her with his arm, leg, rope, tape, or pillow. Rapes lasted longer than robberies and there was a trend for rape victims to have more injuries as a result of the crime. Rape victims were more likely to receive medical treatment and most felt that medical personnel were helpful and understanding.

b) Male versus female robbery victims. Table 3 presents the distribution and Chi-square analyses of the assault variables for male and female robbery victims at session one. The two groups had similar distributions with regard to the number of other people present (44% were alone, 25% had one other person present and 32% included more than one other person), where the robbery occurred (60%

on the street or in a parking lot), the use of weapons (45% guns, 36% no weapon), gags (94% no), blindfolds (97% no), restraint with rope or tape (97% no), injuries, (59% no), the length of the assault (98% less than 30 minutes), time until someone was told (83% within the first 30 minutes), treatment by police (71% were helpful and understanding, 13% were matter-of-fact, and the remaining 16% were negative), whether medical care was given (76% no) and the attitude of medical professionals (most said helpful and understanding).

However, the robberies of male and female victims differed on several important dimensions. Male victims were more likely to have more than one perpetrator, to receive threats and to be restrained with arms or legs. The frequency of injuries reached a borderline level of significance, with male victims reporting more injuries ($p < .06$).

B. Instruments.

With the exception of several demographic questions at the end, the entire battery was programmed into an Apple Computer. The instruments are presented and described in the order they were given.

1. Demographics. The battery began with seven demographic questions that were assumed to be less sensitive than some others.

2. Work Adjustment. Work adjustment was assessed from one of three subscales of the Social Adjustment Scale (Weissman & Paykel, 1974). After answering a question about employment, participants completed one of three six-item scales: work outside home, work at home, or work as a student. Those who were unemployed and did not consider themselves to be homemakers did not fill out any of the subscales.

3. Tennessee Self-Concept Scale (TSCS: Fitts, 1964). The TSCS is a 100-item self-report scale which provides both an overall self-esteem score and the following subscales: identity, self-satisfaction, behavior, physical, moral-ethical, personal, family and social self-esteem. Women and men have the same norms on this measure.

4. Veronen-Kilpatrick Modified Fear Survey (MFS: Veronen and Kilpatrick, 1980). The MFS is a 120-item likert-type fear survey that was developed to assess fear in rape victims compared to nonvictims. The eight factors of the MFS are vulnerability, classical, sexual fears, social evaluation and failure, medical fears, agoraphobia, unexpected or loud noises, and weapons. Because male norms are not available, both men and women were compared based on the norms for nonraped women.

5. Beck Depression Inventory (BDI: Beck, Ward, Mendelson, Mock & Erbaugh, 1961). The BDI is a 21-item questionnaire which reflects common symptoms of depression. Each item has four symptom statements ordered in increasing severity and scored from 0-3. For each item the respondent selects which of the four statements best describes the way he/she feels at the present time.

6. Brief Symptom Index (BSI: Derogotis and Spencer 1983). The BSI is a 54-item factor-analytically derived scale that is a highly correlated, shortened version of the SCL-90-R. The nine symptom clusters are: somatization, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism. There is also a global severity index (GSI) which reflects overall distress. For this study, t-scores based on male or female nonpatient norms were used.

7. History of Violence Questionnaire. This questionnaire was developed for this project. It consists of 126 items covering seven topics: parental discipline/abuse, domestic violence (family of origin), sexual abuse, experience with contact sports, domestic violence (spouse abuse), military combat experience, and history of criminal victimization.

8. Crime Information Questionnaire. There are three versions of the Crime Information Questionnaire: one for robbery victims, one for rape victims and one for rape/robbery victims. In order to cross-check the crime classification given to us by the police and victims, robbery victims were asked if they had been sexually assaulted and rape victims were asked if they had been robbed. As a result of this check a

number of rape victims were reclassified as rape/robbery victims. The questionnaires consisted of 123-126 questions that covered the following topics: circumstances of the crime, assailant information, threats, restraint or violence during the crime, victim responses during the crime, perceptions of death or injury, results of crime, loss of property, injuries. medical treatment, and sexual assault/robbery.

9. Legal Questionnaire. There were 11 questions asked in order to determine the extent of subjects' participation in the criminal justice system, their perception of their treatment during the process and their reactions to it.

10. Social Support. The social support section, which was developed for this project, consists of 47 questions that assess the range and frequency of people the victim talked to about the assault, their reactions, the victim's feelings about their reactions, and the number of people talked to in general.

11. Lifestyle. The lifestyle questionnaire, also developed for this project, assesses behavioral changes resulting from the crime (e.g., moving, self-defense, losing job) and symptoms such as flashbacks, nightmares, or panic attacks. The lifestyle section consists of 15 items.

12. Impact of Events Scale (IES: Horowitz, Wilner & Alvarez 1979). The IES is a 15-item Likert-type scale that assesses cognitive reactions to traumatic events. There are two subscales, avoidance and intrusion of thoughts of the event.

13. Sexual Dysfunctions. This 12-item scale was developed for this project. There are two versions, one for male and one for female victims. Participants are asked to rate the frequency of six sexual dysfunctions before and since the crime.

14. Counseling Questionnaire. This 24-item questionnaire developed for this project assesses major symptoms and major therapy experiences, such as hospitalization, medication, other therapy, alcohol or drug use and treatment, illness, depression, suicidal ideation and attempts.

15. Sexual Functioning. Several of the Derogotis Sexual Functioning Inventory subscales (Derogotis, 1979) were modified for lower reading level and to accommodate homosexuality or people without a sexual partner. In addition to a one-item global sexual relationship satisfaction index (GSSI), there are five subscales: body image, satisfaction, drive (frequency of activities), experience before the crime, and experience since the crime (range of activities). There are two forms, one for women (101 items) and one for men (100 items).

16. Final demographics. Ten demographic questions concerning dependents, education, employment and age were also included in the battery.

C. Procedure.

Each week during the data collection period, three police departments, St. Louis City, University City and St. Louis Unincorporated County, sent us the names, addresses and phone numbers of rape and robbery victims who had reported their crimes that week. The project sent both a cover letter from the appropriate police chief and a pamphlet about the project to all rape victims, and to those robbery victims who fell within the same age range as the rape victims, (generally under 35). The one exception to this was the procedure for rape victims in St. Louis City. Because the sex crimes unit was already sending a list to the Victim-Witness Assistance Unit, they preferred for us to get the list from the Victim-Witness unit. The Victim-Witness Assistance Unit, part of the Circuit Attorney's office, sent out a cover letter from the Circuit Attorney and the project pamphlet along with their own materials. The cover letter informed potential participants about the project and the sponsorship of the police or Circuit Attorney. They were also informed that we might be calling to request their participation. During the two years of data collection 1,605 letters were sent out.

Potential participants were called within two weeks of the one month target date and, if interested in participating, were scheduled for interviews. People could be scheduled one week on either side of their target date. If it was not possible to schedule them within that two week time period, they were not invited or were dropped from the study. Although we had considered that some type of random assignment might be needed to determine who to call because

of the large number of potential participants, in practice it was not necessary. People without phones were sent letters asking them to contact us. Many people had their telephone disconnected or changed after the crime. These two groups rarely contacted us but were scheduled if they did. Many people were never contacted although repeated attempts were made to reach them at various times of day.

With the onset of this NIJ project, participants who were currently active were informed of the extension and asked to continue through their 18 month assessment. Participants who had completed their six month assessment but were not more than one year postcrime were recontacted and asked to return for the 12 and 18 month assessments. We also attempted to contact people who we had been unable to contact during the first grant project. We wanted to see if we could generate enough new subjects to comprise two single-test groups, one at 12 and one at 18 months post-crime. These two single-test groups could be compared to the major sample of the study, the repeated assessment groups, in order to determine the effect of repeated assessment on reporting of symptoms.

The assessment battery was programmed into an Apple II Computer. The program was set up with branching programs to skip questions or sections that were not appropriate for a particular participant. For instance, if someone responded "yes" to the question about being abused as a child, a series of other questions would follow. If she/he responded no, the program would skip to the next section. Occasionally, the battery was completed with a paper and pencil version when the computer was being serviced or when it was necessary to schedule two subjects at the same time. In those cases a research assistant entered the data into the computer from the paper and pencil version.

All participants were seen five times, if possible, at 1, 3, 6, 12, and 18 months postcrime. If participants missed their second session, they were not scheduled for the third session. If we realized that a participant's data were invalid (eg. person was drunk, psychotic or mentally retarded) we made no further attempt to schedule them. Of those people we tried to schedule for more than one session during the first grant, 71% completed all three sessions. An attrition rate of 29% is comparable to other longitudinal studies of rape victims over the same length of time (Kilpatrick & Veronen, 1982 personal communication, 30% across 6 months; Resick et al, 1981, 34% across 4 months).

At the 12 and 18 month sessions the attrition rate was much higher because of the time lag between the two grants. A number of the subjects who had participated at the beginning of the first project had already passed their 12 or 18 month postcrime period.

IV. Results.

A. Preparation of Data.

Two types of checks were made to help insure the reliability and validity of the data. First, it was determined that if a participant refused to answer more than 10% of the items on a particular scale, that scale for that subject would be eliminated from analysis. If there were missing data from 3 or more scales that person's session would be eliminated from analysis. Finally, if there were too much missing data across two or more sessions, the subject would be eliminated from the study entirely.

The second check was to determine the reliability of responding across sessions. We generated a list of 43 items from the History of Violence and Crime Sections for which there should be stable responses over time (e.g., Where did the crime occur?). Although it is possible for participants to remember something differently across time, we felt that if their responses were not consistent at least 70% of the time, we could not trust their answers to be reliable.

As a result of these two checks and the elimination of some other subjects whose responses were considered to be invalid (e.g., subject was drunk, or produced unscorable responses on the paper and pencil version), we elminated 32 participants from any analyses. The total number of subjects who produced analyzable data, for at least one session, was 313 (274 at session 1). Tables 4-7 represent the breakdown of analyzable subjects for the cross-sectional and longitudinal analyses as well as the means and standard deviations on all measures.

B. Preliminary Analyses.

In order to determine the impact of the crime on the victims, we analyzed the data several ways. Before the major analyses were conducted, two preliminary analyses were conducted. First, in order to determine if rape and rape/robbery groups should be treated separately or be collapsed, they were compared by MANOVAs on all the major instruments. The results on all measures, except the TSCS, were nonsignificant. Therefore, the two groups were collapsed except on that measure. Henceforward, except where specifically mentioned, the rape and rape/robbery groups will be referred to as the rape group. On the TSCS, the rape and rape/robbery groups differed on both the ANOVA on total self-esteem at one and three months and the MANOVAs

at one and three months post-crime. Table 8 lists the results of the analyses including the individual ANOVAs of the subscales.

Second, because there were small sample sizes at the later sessions, it was necessary to reduce the number of dependent variables, particularly for the longitudinal analyses. With all of the subscales of the primary symptom measures, there are 29 dependent measures. In order to reduce this to a more manageable number, factor analyses were conducted to determine the relationship between the measures. It was hypothesized that there would be a few factors representing different types of symptomatology underlying the scales (e.g., anxiety, depression). It was planned that the resulting factors would be used in all but the cross-sectional analyses. In addition to the 29 independent outcome variables, sex of subject and type of crime were also included as variables in order to determine if separate factor analyses would be necessary.

The first factor analysis consisted of 271 participants included in session one (3 subjects did not have complete data). The principal components analysis resulted in 6 factors, which were then rotated by the promax method. All of the subscales of the BSI formed the first factor, the TSCS subscales formed the second factor, the MFS subscales formed the third (except for the "unexpected and loud noises" subscale), and the IES formed the fourth. The last two factors did not have any substantial loadings ("unexpected and loud noises" loaded on factor five) and did not contribute much to the overall variance accounted for, so they were dropped. Neither gender nor type of crime loaded on any of the factors; therefore, the factor analysis is representative of all subjects in the project.

In order to determine the reliability of the original factor analysis, the entire sample of respondents was randomly divided into two groups (n = 135 & 136) and the outcome variables for each group were subjected to factor analysis. The results of these two factor analyses were essentially the same. Finally, the data for the entire sample at the three month session was factor analyzed and this analysis also resulted in four factors that represented the four major measures of the study. The Beck Depression Inventory loaded most heavily on the factor that included the subscales of the TSCS but not sufficiently heavy to include it (>.45). The BDI was not included in the regression analyses, but because of its importance in

clinical work, BDI analyses were included with the cross-sectional and longitudinal analyses and subsequent covariance analyses.

Rather than generating factor scores for each person at each session, it was determined that the total score for each measure was the most straightforward measure to use and could most easily be replicated by other researchers. Therefore, the four measures included in most of the analyses were: the Global Severity Index (GSI) from the BSI, Total Self-Esteem from the TSCS (TSCSTOT), Total MFS (MFSTOT), and Total IES (IESTOT). It appears that these four scales are measuring very different types of functioning. GSI is a measure of overall distress and is a compilation of a number of symptom scales. TSCSTOT assesses overall self-esteem. MFSTOT assesses the range of fear-producing stimuli. IESTOT is a measure of cognitive symptoms of post-traumatic stress disorder (PTSD), intrusion and avoidance. As stated earlier, BDI was included with some of the analyses.

C. Overview of Analyses.

There were several different ways of examining reactions to and recovery from victimization. First, cross-sectional analyses and longitudinal analyses were conducted on the major outcome variables of the study. The outcome variables examined were: Brief Symptom Index (global index plus 9 subscales), Beck Depression Inventory, Tennessee Self-Concept Scale (total scale plus 8 subscales), Modified Fear Survey (total score plus 8 subscales), Impact of Event Scale (total score plus 2 subscales), Lifestyle (2 subscales), and Work Adjustment. For these analyses, two comparisons were made, rape vs. robbery, and male vs. female robbery victims. Because of scoring difficulties, analyses of the sexual functioning scales are not included in this report.

The first type of analyses were cross-sectional MANOVAs using all of the available subjects at each session. The larger sample sizes allowed a complete analysis including all of the subscales of the outcome measures. It should be noted that on all standardized scales for which normative data are available, t-scores were used in the analyses. Therefore a score of 50 would indicate that participants were scoring at the mean of the normative sample. A score of 60 is one standard deviation above the normative mean. For the cross-sectional analyses, multivariate analyses of

variance (MANOVA) were conducted on each questionnaire that had subscales, at each session, including all of the participants for which we had data at that session. They were followed by analyses of variance (ANOVA) and post-hoc analyses where appropriate (e.g., if the BSI MANOVAs were significant, then the 9 subscales were analyzed). Single-score scales were analyzed by means of ANOVA. The alpha level for MANOVAs was set at .20 and the alpha level for ANOVAs was set at .05

Next, in order to determine the effect of repeated testing upon the participants, the single-test robbery samples at 12 and 18 months were compared with the repeat-test sample. Third, longitudinal analyses were conducted. Because the repeated measures longitudinal analyses require complete subject data from all sessions, the longitudinal analyses were conducted with a rather small sample. The longitudinal analyses were conducted with the four summary scores derived from the factor analyses plus the Beck Depression Inventory.

After the major outcome variables were analyzed, in order to explore the effects of some precrime, within, and postcrime variables on reactions and recovery, a series of analyses on some variables of interest were conducted. The variable sets of interest were: history of victimization, precrime psychological problems, assault variables, within-assault victim reactions, postcrime social support, postcrime behavioral responses and postcrime treatment.

The first analyses were MANOVAs and ANOVAs to determine whether there were differences between the two crime groups or sex differences on the variables of interest. After the MANOVAs were conducted, if there were significant sex differences or group differences on the variables, then covariance analyses were performed. These analyses repeated the cross-sectional analyses while covarying the identified variables in order to determine if they were responsible for the group or sex differences.

Finally, stepwise regression analyses were executed to determine whether these sets of predictor variables were associated with later problems in recovery within each of the groups. Each of the three groups, female rape, female robbery, and male robbery were analyzed separately. In order to reduce the number of regresssion analyses somewhat, the 3 month session was eliminated and the analyses used only the four major summary variables. Therefore, the

assessments that were examined were at six month intervals. For the most part, analyses were conducted at the 1 month session to examine severity of reactions and at the 6, 12, and 18 month sessions to determine if they could examine long term problems with recovery. The outcome variables that were subjected to covariance analyses and regression analyses were: MFSTOT, GSI, TSCSTOT, and IESTOT. These were measures derived from the factor analyses.

It should be noted at this point that the entire battery of questions was given to participants at each session. Rather than attempting to determine what the actual history or perceptions of a victim were at the time of the crime, for these analyses, perceptions at the time of assessment were used to assess how they were influencing victims' functioning at that session. Therefore, even if victims' memories and perceptions regarding the crime changed over time, it was assumed that the most relevant set of perceptions were the ones they reported at the given session in question.

Although it might seem advisable to raise the alpha level due to the large number of analyses conducted, it was decided to keep the cutoff point for significance on regression analyses at the .05 level for several reasons. These analyses were exploratory and an overly exclusive cutoff point would eliminate some potentially interesting variables or patterns of reactions from emerging. However, as it would be expected that 5 of every 100 analyses would be significant by chance alone, isolated findings will not be given undue importance and the results will not be overinterpreted.

The final analyses of the project were concerned with participation in the criminal justice system. Those who completed participation in the criminal justice system by means of a trial or guilty plea were compared to a matched sample of project participants who did not participate in the criminal justice system at all because no one was apprehended. These two samples were compared with regard to psychological functioning at the end of the process and at earlier points in time.

D. Cross-Sectional Analyses.

1. Female rape versus robbery victims.

Table 9 presents the results of the MANOVAs, and when appropriate, ANOVAs on all subscales. Before a MANOVA was conducted on the BSI using all of the subscales, ANOVAs were conducted at each session on the summary score, the Global Severity Index (GSI). It was found that rape victims reported greater distress than female robbery victims at 3 months and 6 months, but not at 1, 12, or 18 months postcrime. Figure 1 depicts the mean GSI scores of rape and robbery victims at the five sessions.

Table 10 presents the percentage of rape and robbery victims who scored at the mean, one, and two standard deviations above the mean based on nonpatient norms of the GSI. It can be seen that at one month postcrime, 48% of rape victims scored one standard deviation above the mean while 35% scored two standard deviations above the mean. Derogotis' recommended cutoff point for clinical cases is a t-score of 63 but two standard deviations is a more conservative estimate of "caseness". Thirty-seven percent of female robbery victims were elevated one standard deviation, while 31% were elevated two standard deviations. By three months postcrime 20% of the rape victims still scored two standard deviations above the mean while only 10% of robbery victims were elevated to the same extent. At 18 months postcrime, 55% of the rape victims were at least one standard deviation above the mean and 20% of the sample was elevated at least two standard deviations. In contrast, 36% of the female robbery victims were elevated at least one standard deviation and only 9.5% were elevated two or more standard deviations.

Following the univariate analyses of GSI, multivariate analyses of variance were conducted at each of the five sessions on all of the BSI subscales. All of the MANOVAs were significant except at 18 months postcrime. On the univariate analyses at one month, the rape victims scored significantly higher on depression, anxiety, and phobic anxiety, but did not differ on the other six subscales. At 3 months, rape victims reported more distress than female robbery victims on seven of the nine subscales. They did not differ on hostility or somatization, although there was a trend on the latter. At six months postcrime, rape victims reported greater problems with somatization,

obsessive-compulsive symptoms, interpersonal sensitivity, anxiety, phobic anxiety, and psychoticism. They did not differ on depression, hostility, or paranoid ideation. At 12 months, the rape victims reported significantly greater problems with only somatization.

Generally, the scores of the group were elevated 1 to 1 1/2 standard deviations above the mean of the normative samples for the measure and their scores continued to be somewhat elevated, particularly on subscales tapping anxiety and fear throughout the study period.

On the Beck Depression Inventory, rape victims reported greater depressive symptomatology at all but the 12 month session. Using standard cut-off points for the BDI, the rape group scored in the mildly depressed range on the average throughout the study period while robbery victims scored in the mildly depressed range at one month postcrime but in the nondepressed range thereafter. Table 10 depicts the breakdown of participants who fell into the categories of nondepressed, mild, moderate, or severe symptomatology. At one month postcrime, 40% of rape victims scored as moderately or severely depressed. At 18 months postcrime 32% still fell within the moderately or severely depressed range. Twenty-one percent of the female robbery victims scored as moderately or severely depressed at one month postcrime. By 18 months postcrime, only 5% continued to score in the moderate to severe range.

On the Tennessee Self-Concept Scale (TSCS), rape and rape/robbery victims were examined separately so the analyses were three-way initially. ANOVAs on the summary score, TSCSTOT, were significant at 1, 3, and 6 months, but there were only trends at 12 and 18 months. At 1 and 3 months, rape and robbery victims reported significantly higher self-esteem than rape/robbery victims, and at 6 months postcrime, robbery victims continued to report higher self-esteem than rape/robbery victims. The scores of the rape and robbery victims at all sessions were right at the mean for population norms for the scale, while the mean score of rape/robbery victims was approximately one-half standard deviation below the mean. Lower scores indicate lower self-esteem. (See Figure 2).

Because later analyses indicate that the differences between rape and rape/robbery victims were probably due to random differences in the sample rather than differences in the crime, total TSCS scores were also analyzed with two

groups, as well as three, for better comparability. The results of these ANOVAs were that rape victims (collapsed with rape/robbery victims) reported significantly lower self-esteem than the robbery victims at 6 and 18 months with a trend at 3 months ($p<.09$).

Table 10 depicts breakdown of subjects by the normative nonpatient t-scores for the scale. Rape and rape/robbery were collapsed for this table because of relatively small sample sizes and the number of cells. It can be seen that 32% of rape victims and 23% of robbery victims scored below a t-score of 40 at one month. At 18 months, 37% of the sample of rape victims that remained scored below a t-score of 40, while 21% of the robbery victims scored in that range.

On the TSCS subcales, MANOVAs were significant through the 12-month session but not at the 18-month session. At one month there were significant differences on physical, personal, identity, and behavioral self-esteem. On physical self-esteem, rape victims reported greater self-esteem than either robbery or rape/robbery victims. On the personal and behavioral subscales, both rape and robbery victims reported greater self-esteem than rape/robbery victims. On identity, robbery victims reported greater self-esteem than rape/robbery victims.

At 3 months postcrime, rape and robbery victims reported greater self-esteem than rape/robbery victims on physical, identity, and behavior. Robbery victims also reported more self-esteem than rape/robbery victims on social self-esteem. At 6 months, rape victims reported greater physical self-esteem than rape/robbery victims, and robbery victims expressed higher self-esteem on the social and identity subscales than rape/robbery victims. At 12 months postcrime, both rape and robbery victims reported greater self-esteem on moral-ethical and social subscales. Again, with the subscales as with the total score, the rape/robbery victims tended to score from one half to one full standard deviation below the normative mean for the scale, while rape and robbery victims scored at or near the mean.

ANOVAs for the total score of the Modified Fear Survey (MFS) revealed no differences between rape and robbery victims at any session. (See Figure 3). MANOVAs on the MFS subscales were significant at 1, 3, and 6 months postcrime, but not at 12 or 18 months. At all three sessions the only

subscale that emerged as significant on the ANOVAs was sexual fears, and at the 6-month session that was only a trend. At the first two assessment periods, rape victims had significantly greater sexual fears than robbery victims. Table 10 again presents a breakdown of scores of the total MFS based on comparison group norms of nonraped women. At one month postcrime, 7% of rape victims scored at least two standard deviations above nonrape-victim means while another 26% scored one standard deviation above the mean. Thirteen percent of the female robbery victims were elevated at least two standard deviations, and 18% were elevated one.

On the Impact of Event Scale (IES), ANOVAs on the overall score and MANOVAs including the two subscales were significant at all five sessions. Rape victims scored significantly higher than female robbery victims. (See Figure 4). Table 10 presents the breakdown of victims who are classified as having mild, moderate or severe symptomatology on the two subscales. Because the scale can only be completed by people who have had some trauma as a referent, there are no nonvictim comparison norms. The cutoff points used were those suggested by the authors of the scale. A score of 19 or more on either scale is indicative of severe PTSD symptoms. For IESTOT cutoff points the subscale cutoff points were doubled. At one month postcrime, 66% of rape victims scored in the severe range of symptomatology compared to 34% of female robbery victims. At 18 months postcrime, 15% of rape victims and 10% of robbery victims fell into the severe range.

Univariate analyses on the two subscales, avoidance and intrusion, were also significant for the two groups at all five sessions. Rape victims reported greater problems with avoidance and intrusive recollections of the event than did robbery victims although both groups scored in the moderate to severe range initially.

Results of analyses on the lifestyle questionnaire were similar to the IES. MANOVAs were significant at all 5 sessions. Rape victims scored significantly higher on symptoms than robbery victims at all five sessions and on behavioral responses at all but the 12-month session. There were no significant differences between the two groups in work adjustment at any of the sessions.

Conclusions. Rape victims have significantly greater symptomatology than robbery victims, particularly in the first six months postcrime. In fact, there are some

indications from the results on the BSI that differences are especially strong during recovery, from three to six months postcrime. The IES, the scale that taps PTSD symptoms, and the lifestyle questionnaire revealed the most pronounced differences, lasting the entire 18 months of the study. On the other hand, the only trait-like scale, the TSCS, indicated that over that time period, there were no significant differences between women who were raped and those who were robbed. However, women who were both raped and robbed had significantly lower self-esteem than the other women through six months postcrime.

At this point it is not clear whether differences between the groups are due to differences in the assaults, in the samples prior to the crime, in their reactions during the assault, or in how they were treated after the crime. Further analyses of these variables were conducted to attempt to answer these questions.

2. Male versus female robbery victims.

There were no significant differences between male and female robbery victims at any of the five sessions on the GSI of the BSI. Figure 5 depicts the GSI scores of male and female robbery victims at the five sessions. Table 10 presents a breakdown of subjects' scores based on normative t-scores. Table 11 contains the results of all MANOVAs, and ANOVAs where appropriate. At one month postcrime, 31% of each group scored at least two standard deviations above the mean. By 18 months postcrime, 10% of female robbery victims and 21% of male victims still scored at least two standard deviations above the norms.

MANOVAs on the BSI subscales reached significance at all five sessions but only one subscale reached the .05 alpha level set for the univariate analyses. At the 18-month session, men had significantly higher depression scores than women. Overall, it cannot be concluded that there are any sex differences in male and female robbery victims' distress levels over time as measured by the BSI. Inspection of group means indicates that both male and female robbery victims were elevated a bit over one standard deviation initially and continued to exhibit some elevations across the 18 months after the crime.

On the BDI, the only session for which there were differences between female and male robbery victims was session one. Female robbery victims experienced more

depressive symptoms in the first month after the crime than did male robbery victims. Thereafter there were no differences. At one month postcrime, female victims scored in the mildly depressed range as a group and both groups scored in the nondepressed range thereafter.

On the Tennesee Self-Concept Scale the first analyses were ANOVAs on the total self-esteem scale. All were nonsignificant. (See Figure 6 and Table 10 for a breakdown of scores.) MANOVAs were significant at all five sessions. The only subscale to emerge as significant through the univariate analyses was physical self-esteem. Men had significantly higher self-esteem about their physical selves than women at 1 and 12 months postcrime, and there were trends in the same direction at 3, 6, and 18. The only other trend was for the male robbery victims to score higher on personal self-esteem at the 12-month session. The means of both groups were within the normal range on all of the subscales at all of the sessions.

ANOVAs on the MFS total were significant at all five sessions, with women scoring higher than men at all sessions. (See Tables 10 and 11 and Figure 7). It should be noted here that there are no male norms on the MFS so the t-scores used in Table 10 are of female nonrape victims. MANOVAs were also significant at all assessment periods. Female rape victims scored higher than male victims on the vulnerability, classical, sexual, medical, and weapons subscales at one and three months postcrime. They also scored higher on the vulnerability scale at session three. At six months postcrime women continued to have more problems with vulnerability, classical, medical and weapons fears. At 12 months postcrime the weapons fears subscale was no longer significant, but differences reemerged again at 18 months. The other three scales continued to be different through 18 months postcrime.

There were significant sex differences on the IESTOT score at the one month session and a trend at three months. There were no differences at 6, 12, or 18 months postcrime. At the one month session, female robbery victims scored significantly higher than male victims. (See Figure 8). On the MANOVAs, there were significant differences through six months. On the univariate analyses, women reported more problems with intrusive memories at one month and more avoidance at three months than the men. There was also a trend for there to be more avoidance in the female sample at one month postcrime. At the six-month session, although

there was a significant MANOVA, neither of the subscales was significant on the univariate analyses. There were no differences between male and female robbery victims on the IES at 12 or 18 months.

It should be noted that while there were sex differences initially, both men's and women's mean scores were in the moderate range of post-traumatic symptomatology based on clinical cut-off levels for the IES. At 18 months, scores fell in the low end rather than the high end of the moderate range. See Table 10 for a breakdown of the robbery victims' scores into mild, moderate, or severe categories for the two scales. Using the clinical cutoff scores for the total sample at one month, 34% of women and 17% of men fell into the severe range. By 18 months, 10% of women and 9% of men fell into the severe range of symptoms.

The Lifestyle Scale MANOVAs resulted in significant differences at 1, 3, and 6 months, but not at 12 or 18 months postcrime. Women reported significantly more postcrime behavioral responses than men through six months, and more symptoms only at the first month after the crime. There were no differences in work adjustment between men and women at any session although there was a trend for women to score higher on the scale at the one month session ($p < .08$), indicating more problems with work adjustment.

Conclusions. There were no impressive sex differences in victim reactions beyond the first month postcrime. On the BSI there were no differences except for men to score higher than women on depression at the 18-month session. However, on the BDI, women reported more depressive symptoms than men at one month postcrime only. Women also scored higher than men on the total IES at the first session but continued to have more avoidance at the 3-month session. There were no self-esteem differences except physical self-esteem, which probably refects natural sex differences rather than reactions to victimization.

The same may be said of differences that emerged on the MFS. Unlike the BSI, pre-existing sex differences on the scale were not controlled for, thus differences may well reflect sex differences in fear which has been well established in the literature. In fact, women have been found to be more fearful of crime than men so some of the crime related stimuli on the scale that were endorsed more by women (e.g., vulnerability, weapons) may have produced sex differences even without the current victimization.

Further research on this scale is needed. Nevertheless, it appears that women have stronger reactions to the event at one-month postcrime, and thereafter report very similar reactions to the men.

3. Single versus repeat assessment.

In order to determine whether effects across sessions might be due in part to repeated assessment, two additional groups of participants were recruited. They were seen for the first time at either 12 or 18 months postcrime. All were robbery victims. There were 10 women and 9 men in the 12 month group and 13 women and 6 men in the 18 month group. Because sample sizes were small and no strong sex differences emerged at the later sessions, groups were collapsed to form one 12 month and one 18 month group.

These two groups were compared to subjects from the main sample for whom we had 12 or 18 month data. The groups were compared on the four summary variables determined by the factor analysis: GSI, TSCSTOT, MFSTOT, and IESTOT. There was only one significant finding out of eight comparisons. The single test group had significantly higher scores on the MFS than the regular sample at 12 months postcrime, $F(1, 82) = 7.11$, $p < .01$. These findings may indicate that people who have not participated in studies such as this one have greater fear at 12 months postcrime than those who have been exposed to repeated assessment.

However, there were no other significant findings on other measures or for the 18-month-only group. It is quite possible that the results occurred by chance. The proportion of men in the 12-month cross-sectional sample was much larger than in the single test sample. It is also possible that the difference here also occurred because of the sex differences found on this scale earlier. Nevertheless, it must be concluded that there were no convincing differences that emerged with these analyses. Therefore, it was decided to collapse these two groups into the main sample for regression analyses in order to increase sample sizes at the later sessions. Means and standard deviations for the single test samples are listed in Table 12. Figures 5-8 include the mean scores of the single-test groups as well as the larger cross-sectional samples.

E. Longitudinal Analyses.

E. Longitudinal Analyses.

Longitudinal analyses included only those participants who successfully completed all five sessions. Because sample sizes were relatively small, it was necessary to reduce the number of dependent variables. Four summary scores from the major measures (GSI, MFSTOT, TSCSTOT, and IESTOT) as well as the BDI were used. Two by five analyses of variance with repeated measures on the second variable were used for these analyses. Alpha was set at .05. Tables 13 and 14 present results of these analyses.

1. Female rape versus robbery victims.

On the GSI there was no interaction or group main effect. There was a significant sessions effect. Women's scores were significantly higher at one month than at any of the subsequent time periods. The 3-month session was also significantly higher than the 18-month session. At the first session, the female victims had a mean t-score of 65, which means they scored, as a group, 1 1/2 standard deviations above the normative mean for the scale and right above Derogotis' cutoff point for clinical caseness. They remained elevated approximately one standard deviation ($\underline{M}$= 58.9) through the 12-month assessment and were 1/2 standard deviation elevated at 18 months postassault ($\underline{M}$=.55). Figure 9 depicts the data from the longitudinal sample.

As with the cross-sectional analyses, longitudinal analyses on the TSCS were first conducted with three groups: rape, robbery, and rape/robbery. The sample sizes were so small for the two rape groups that findings are questionable. On this analysis there were no interaction, group or sessions main effects. However, further analysis collapsing the rape and rape-robbery groups did not change the outcome. (See Figure 10).

On MFSTOT there was no interaction and no group main effect but there was a significant sessions effect. The post-hoc analyses indicated that there was a significant decrease in fearfulness to specific stimuli between one and three months postcrime. The scores at one month were significantly higher than any of the other sessions. In addition, 3-month session scores were significantly higher than those at 18 months postcrime. (See Figure 11).

An ANOVA on the IES resulted in significant group and sessions main effects, but no interaction. Rape victims nad significantly higher scores on the IES than robbery victims. All subjects in the longitudinal sample reported improvement

between 1 and 3 months postcrime and again following the 3-month session. Scores from session 1 were significantly higher than the remaining sessions, and the 3-month scores were significantly higher than those at 6 and 18 months. (See Figure 12).

The cutoff score for severe PTSD symptomatology on the IES is 19 for each of the subscales. An examination of the mean scores of longitudinal participants reveals that both rape and robbery victims fell in the severe range on avoidance at one month postcrime and that rape victims, but not robbery victims, were in the severe range on intrusion. Thereafter, they scored in the moderate range and neither group reached the point of being considered asymptomatic by 18 months postcrime.

The analysis on the BDI revealed a sessions effect but no interaction or group effect. The women improved between one and three months postcrime and there was no further change thereafter. Mean scored were in the mildly depressed range at one month and in the nondepressed range thereafter.

Conclusions. Overall, the longitudinal analyses are consistent with the cross-sectional analyses. A few of the group differences that were found with the cross-sectional sample disappeared with the smaller sample sizes (i.e., GSI at 3 and 6 months, rape-robbery differences on the TSCS, BDI at all but 12 months). No new group differences emerged where they had not been found before.

Longitudinal analyses indicate that victims' greatest amount of improvement occurred between 1 and 3 months postcrime but that on some measures continued, gradual improvement occurred between 3 and 18 months. Although improvement on the IES continued after the 3-month session, there were significant group differences on this scale. Rape victims reported more post-traumatic stress disorder symptoms than robbery victims, and neither group reached the point of being asymptomatic by the 18 month point. In contrast, this sample showed no particular effect with regard to self-esteem.

2. Male versus female robbery victims.

On the GSI there were no interaction or group main effects. There was however, a significant sessions effect. Post-hoc analyses indicated that session 1 differed significantly from all of the later sessions. As with the

rape and robbery victims mentioned in the previous section, at the first session scores of the robbery victims were elevated approximately 1 1/2 standard deviations above the normative mean. At the later sessions the mean score on the GSI was within a 1/2 of a standard deviation of the normative mean. In other words, at one month postcrime, the robbery victims as a group were reporting significant distress which improved significantly by three months postcrime. Figure 13 depicts the mean GSI scores of female and male robbery victims in the longitudinal sample.

On the TSCS there was not a significant interaction, group, or sessions effect. As a group, self-esteem scores of the robbery victims were not affected by the crime. At all of the assessment sessions, the mean scores of this sample fell at the normative mean for the scale. (See Figure 14).

On the two other measures of fear, there were both group and sessions effects. An ANOVA of the total score of the MFS indicated that there was no interaction, but there were group effects and sessions effects as follows: female robbery victims had significantly higher MFS totals than male robbery victims, and all subjects improved significantly from one month to three months postcrime. The improvement was maintained across the remaining assessment periods. (See Figure 15).

Analysis on the IESTOT resulted in a significant interaction. Female robbery victims scored significantly higher than male robbery victims across the 1-month and 3-month sessions and did not differ from men at later sessions. They improved significantly between 1 and 3 months postcrime and between 3 and 6 months. The 3-month session also differed significantly from the 18 month session. However, the scores from the 3-month session did not differ from the 12-month session. Male robbery victims, on the other hand improved between 1 and 3 months postcrime, then showed no further change. (See Figure 16).

There was also a significant interaction effect on the BDI. Female robbery victims scored higher than male robbery victims at session one. The women improved significantly between one and three months while the men did not change across sessions. Female robbery victims scored in the mildly depressed range initially while male robbery victims reported no depressive symptoms on the average across any of the five sessions.

Conclusions. Results of the longitudinal analyses essentially paralleled cross-sectional analyses with regard to group effects. On three of the measures robbery victims exhibited improvement between one and three months postcrime and then showed no further change. On the IES and BSI there were interactions. On the IES men improved between one and three months and reported no further change thereafter. Women, who had significantly higher scores than men at one and three months, improved between the first two sessions and then reported continued improvement between three and six months. Apparently, because they reported greater PTSD symptoms in the first three months after the crime it took them somewhat longer to improve. On the BDI the women reported some depressive symptomatology for the first month after the assault and then improved. The men reported no depression on the average and therefore exhibited no change over time.

F. History of Victimization.

Predictor variables were developed from the History of Violence and Crime Information questionnaires. The first set of variables included information regarding history of direct violence and crime as well as observed violence. A child abuse index and an emotional abuse index were developed from a series of likert-type items regarding the types and frequency of parental punishment used. Because some forms of parental punishment are likely to be more severe in impact than others, an attempt was made to rate the severity of the different items. In order to rate the severity of 20 types of parental punishment, 14 members of the research team scored each item for severity on a scale from 0 to 100. The highest and lowest scores were eliminated from each item and then the mean was calculated. The mean score of ratings was used to weight each item on the parental punishment list (mean severity ratings for each item are available from the Principal Investigator). The weighted items were each multiplied by their frequency and then all were summed to create a child abuse index.

One other variable was composed of a number of items that included severity ratings. Participants were asked about frequency of victimization on 16 crimes. The same rating procedure was used to rate the severity of crimes. Frequency ratings of the items were multiplied by the severity rating and then summed together. Therefore, previous victimization index (PREVIC) was the sum of the severity ratings for each type of criminal victimization the

participant had experienced. The remainder of the variables concerning the history of victimization were the sums of 2-9 items in the interviews. The "predictor" variables included in these regression analyses were: physical child abuse, child sexual abuse, incest, emotional abuse, observed violence in childhood, severity of prior criminal victimization, domestic violence, and military combat experience.

1. MANOVAs.

Although one might expect that victims' reporting of their history should not change over time, MANOVAs were conducted at all five sessions for several reasons. First, samples changed somewhat from session to session. Across sessions some victims dropped out while at 12 and 18 months new subjects (single-test participants) were added. Second, it is possible that victims might change their report because some information might be remembered or forgotten at later sessions or they might change their willingness to report some information. Third, it is possible that some questionnaire items were not worded well and response choices could not be discriminated adequately. In at least one case this latter explanation led to the elimination of variables from further analyses. Tables 15-17 depict the results of the history of victimization MANOVAs and subsequent ANOVAs.

a. Rape versus rape-robbery victims. Because there were differences in self-esteem between rape and rape-robbery victims, these two groups were compared on the history of victimization variables and the assault variables to see if these factors might account for differences between the two groups. Three of five MANOVAs (1, 6, and 12 months) reached the .20 level of significance but only one of the univariate analyses achieved the .05 level of significance. At 12 months postcrime rape-robbery victims reported a significantly greater history of prior criminal victimization. Such a prior history of victimization could explain the differences in self-esteem between the two groups. If that is the case, differences in self-esteem could be in reaction to this latest victimization, or could have predated the crime and be a residual effect of earlier victimization(s).

b. Rape versus robbery victims. The MANOVA at session one was significant. ANOVAs which followed resulted in one significant finding: female robbery victims reported

observing significantly more violence in childhood than did the rape victims. At three months postcrime the overall MANOVA was significant but the only individual variable to reach significance was the extent of previous victimization. Rape victims reported a greater history of prior criminal victimization. At six months postcrime, the overall MANOVA was again significant, and again the univariate analyses indicated that rape victims had a significantly greater history of previous criminal victimization than female robbery victims. At the 12 month session the MANOVA was nonsignificant, and at the 18 month session the MANOVA reached the .20 level of significance, but none of the ANOVAs were significant at the .05 level.

c. Male versus female robbery victims. MANOVAs were significant at all five sessions. At session one, only one of the seven variables accounted for this finding. Female robbery victims had a significantly greater history of domestic violence victimization. At three months, the overall MANOVA was significant but none of the univariate analyses reached significance. At six months postcrime, there were several reported differences between men and women. Men reported more child abuse, emotional abuse, and nearly reached significance on child sexual abuse. Women reported more domestic violence. At 12 months there was again only one difference; women to reported more domestic violence victimization. At 18 months men reported significantly more child sexual abuse and women reported more domestic violence.

2. Covariance analyses.

Because there were some differences between both rape and robbery victims and female and male robbery victims in their histories of victimization, it is possible that these differences might account for the significant findings between the groups on the cross-sectional analyses. One way to eliminate the possible effects of participants' histories is through covariance analysis.

History of victimization was reduced to a single variable by standardizing each of seven history variables to a mean of 50 and a standard deviation of 10. The seven variables were then added together to form one history of victimization index. This index was used as a covariate in the cross-sectional analyses. However, rather than analyzing all of the subscales of the various instruments, only the four summary variables plus the Beck Depression

Inventory were used, in order to reduce the number of analyses.

a. Female rape versus robbery victims. Results of the covariance analyses are presented in Table 18. On the GSI, results were the same as the original analyses except for the first session. At one month postcrime, once the effects of earlier victimization were eliminated, rape victims had significantly higher scores than robbery victims. On the original analyses rape and robbery victims differed at the three and six month sessions only.

On the original analyses of the TSCS, rape and robbery victims differed at the 6 and 18 month sessions. On the covariance analyses, the only significant session was at six months postcrime. However, there were trends at 1, 3, and 18 months postcrime. Results of ANCOVAs on the MFS were all nonsignificant, as they were on the original ANOVAs. Results of the IES analyses were also the same as the original analyses, but in this case they were all significant, with rape victims reporting significantly more cognitive intrusion and avoidance. BDI results were also the same after history of victimization was covaried out.

Overall, results of the covariance analyses indicate that participants' history of victimization did not have a great impact on findings of the original analyses. On three of the measures the findings did not change while on the other two there were some minor differences. The differences between rape and robbery victims became more pronounced at the one month session on the GSI, while they disappeared on one of the sessions on the TSCS.

b. Male versus female robbery victims. Table 19 presents findings of covariance analyses of male and female robbery victims. Covarying the participants' history of victimization made no difference in the comparison of their reactions to the current robbery. Findings were the same as the original analyses.

3. Stepwise regression analyses.

a. Female rape victims. The results of regression analyses are presented in Table 20. Only one historical variable predicted reactions at one month postcrime in rape victims. The extent of previous victimization predicted overall distress (GSI) and accounted for 68% of the variance. At six months postcrime a greater history of

domestic violence predicted greater overall distress (GSI). This variable accounted for 8% of the variance. At 12 months postcrime, the extent of child abuse significantly predicted global distress as measured by the GSI. However, the relationship was inverse such that greater levels of child abuse were associated with lower GSI scores at 12 months. The R^2 was .22.

TSCSTOT, the overall measure of self-esteem, was predicted at only one session by one measure. Greater observation of violence in childhood predicted lower self-esteem at six months postcrime.

MFSTOT, the total fear score, was significantly predicted by several history of victimization variables at 6 and 12 months but not at 1 or 18 months. At 6 months postcrime, domestic violence and child sexual abuse together explained 16% of the variance in scores. Child sexual abuse was inversely related, that is, a greater history of child sexual abuse predicted lower MFS scores at six months postcrime. In order to explain these findings the first order correlations between the history of victimization variables were examined. In a case such as this, it is possible that the first variable to enter the equation, domestic violence, accounted for the fear level while the second variable, child sexual abuse, which was correlated to the first (r=.47), accounted for something else. For example, it could be speculated that a willingness to disclose such a history is related to lower fear levels. It could also be that the findings are valid as they appear, or are spurious due to experiment-wise error.

A combination of two variables, emotional abuse and extent of previous victimization, significantly predicted MFS scores at 12 months postcrime. Emotional abuse was negatively related while extent of previous victimization was positively related. They explained 42% of the variance. As with the prediction of GSI at 12 months, the inverse relationship was unexpected. None of the history of victimization variables predicted IES scores at any session or reactions on any of the variables at 18 months postcrime.

Conclusions. Although it appears that a history of prior victimization plays a role in reactions and recovery of rape victims, particularly at six months postcrime, the pattern of variables is somewhat obscure. Six of the seven predictor variables emerged in these analyses. More confusing was the directionality of the findings. Sometimes

the variables were positively related, while several times there were unexpected inverse relationships. However, a history of domestic violence appeared to predict greater symptoms at six months postcrime. Greater parental emotional abuse or physical child abuse (which were correlated .79 with each other) appeared to predict less distress at 12 months postcrime (or no abuse in childhood predicted greater distress after a crime in adulthood). Almost all of the predictors emerged at 6 or 12 months indicating that history of victimization was not as influential in the initial or most long-term reactions, but was more important during the recovery phase.

b. Female robbery victims. Unlike rape victims, the reactions and recovery of female robbery victims were predicted by prior history of victimization at every session on every measure that was examined. Table 21 reveals that severity of prior victimization (PREVIC) emerged as the only significant predictor of GSI scores at 1-month and 18-month sessions. At six months, childhood observation of violence emerged as a significant predictor of GSI scores, while at 12 months a history of emotional abuse was a significant predictor. At all four sessions the variable that entered the regression equation explained 11-14% of the variance.

Problems with self-esteem were predicted by a history of childhood emotional abuse at one month. Severity of victimization predicted problems at six months postcrime. A set of three variables, emotional abuse, previous criminal victimization, and extent of child abuse, accounted for 63% of the variance in self-esteem scores at 12 months postcrime. The first two variables entered the equation with negative beta weights indicating that high levels of parental emotional abuse and prior victimization were associated with low self-esteem. The third variable, total physical child abuse, entered the equation with a positive weighting. However, an examination of the first order correlations indicated that physical child abuse was also negatively correlated with self-esteem (r= -.26). Perhaps as was discussed in the previous section, the child abuse variable was measuring something other than the psychological trauma of prior child abuse, once the overlap with emotional abuse had been partialed out. At this session, and with this group, emotional abuse and total child abuse were correlated .62. At 18 months a history of child abuse predicted problems with self-esteem.

Fear scores (MFS) were predicted at one month postcrime by emotional abuse. At six months a set of three variables best predicted MFS scores. Observed violence, child abuse, and emotional abuse accounted for 35% of the variance. Observed violence and emotional abuse were loaded positively while child abuse again loaded negatively. As occurred with TSCS, child abuse was positively correlated with MFS with the first order correlation (.14). At this session, emotional abuse and child abuse were correlated .79. Two variables, prior criminal victimization and domestic violence together predicted fear at 12 months. Prior victimization was postively weighted while domestic violence was negatively weighted. The two variables were correlated .51 with one another. However, unlike the previous examples, domestic violence was also negatively correlated (-.07) with MFS on the first order correlations. Observed violence was the best single predictor of higher MFS scores at 18 months.

On the IES, the extent of emotional abuse was predictive of greater scores at one month postcrime and alone accounted for 21% of the variance. At 6 months child sexual abuse predicted IES scores while both incest and child sexual abuse predicted IES scores at 12 months postcrime. Incest was positively weighted while child sexual abuse was negatively weighted. However, the two variables were correlated .78 with each other. These two variables, in concert, accounted for 30% of the variance. None of the history of victimization variables were significantly predictive at 18 months.

Conclusions. The results of these regression analyses indicate that there is a clear connection between female robbery victims' history of prior victimization and their reactions to and recovery from the current victimization. These historical variables accounted for a substantial amount of the variance in the scores on the four outcome measures. A history of childhood emotional abuse appeared to be particularly important in female robbery victims' short term reactions to the assault, although it also emerged as a significant predictor at 6 and 12 months. The extent of prior criminal victimization also emerged across all four time periods and three of the four measures. Child sexual abuse and incest predicted only the IES scores while the rest of the predictors were scattered across sessions and measures.

c. Male robbery victims. The results of these analyses are presented in Table 22. At one month postcrime child sexual abuse significantly predicted the severity of GSI scores but explained only a small amount of the variance. At six months postcrime, three variables, incest, extent of child abuse and severity of victimization, were associated with GSI scores and accounted for 29% of the variance. The extent of previous victimization and child abuse together predicted GSI at 12 months postcrime and explained 18% of the variance. Severity of prior victimization emerged as a significant predictor of GSI at 18 months postcrime.

Childhood experience with incest predicted greater self-esteem (TSCSTOT) at one month post-assault in male robbery victims while emotional abuse predicted lower self-esteem. At six months postcrime, child sexual abuse predicted lower self-esteem. There were no significant predictors at 12 months postcrime. At 18 months postcrime, severity of previous victimization was associated with lower self-esteem.

The MFS scores of male robbery victims were predicted at one month by child sexual abuse, by domestic violence history at six months, and by child sexual abuse again at 18 months. The two variables at the earlier two sessions explained very little of the variance, but child sexual abuse history accounted for 23% of the variance at 18 months. There were no significant history of victimization predictors at 12 months postcrime.

On the IES, the only session which was predicted by the history of violence variables was at one month postcrime. A history of incest predicted higher IESTOT scores but only accounted for 4% of the variance.

Conclusions. Overall, it appears that a history of victimization plays a small role in predicting reactions of male robbery victims within the first month after the crime, and a larger role in predicting long-term reactions. Incest and child sexual abuse were particularly noticeable in the first months after an assault, while previous criminal victimization was more likely to emerge as a predictor of problems with recovery at the later sessions of the study.

4. Simple regression analyses.

Although the preceding analyses provide a great deal of information regarding the possible effects of various types of victimization on reactions to and recovery from the current victimization, they are also cumbersome and difficult to interpret. In order to simplify interpretation somewhat, simple regression analyses using the seven historical predictor variables were also conducted. These analyses enter the entire set of seven history of victimization variables (HOV) to predict each of the four summary variables at the four sessions. The results are presented in Table 23.

The set of historical variables only predicted the recovery of rape victims at 12 and 18 months. At 12 months the HOV variables predicted greater overall distress (GSI) and accounted for 65% of the variance. At 18 months the variables again predicted GSI scores and explained 60% of the variance. MFS scores were predicted at 12 months by the HOV variables and accounted for 56% of the variance. In contrast to the stepwise analyses which tended to predict reactions at 6 and 12 months but accounted for small proportions of the variance, the examination of the entire set of HOV predictors indicates that long term problems in recovery are associated with greater experience with victimization prior to the current incident.

On the other hand, female robbery victims are affected by their histories of victimization throughout the recovery process, perhaps because, as a group, their reactions are more variable than those of rape victims. At the one-month session, all four summary variables were predicted by the women's history of victimization. It accounted for 18-32% of the variance. At six months postcrime, HOV significantly predicted TSCS, MFS, and IES, but not GSI. At this session 30-39% of the variance was explained. AT 12 months postcrime, TSCS and IES were predicted by the HOV variables and they accounted for 69% and 43% of the variance respectively. At 18 months only one variable, MFS was predicted by the HOV variables as a set (R^2=.29).

The apparent pattern was for history of victimization to have a modest but pervasive effect during the early months following crime and to effect fewer of the measures at the later sessions. However, much of the variability in

self-esteem scores at 12 months was accounted for by the women's history of victimization.

It was found that for male robbery victims effects of their victimization history occurred in the first six months for the most part. Both GSI and TSCS were predicted by HOV at one and six months postcrime. The HOV variables accounted for 19-31% of the variance. The only other measure that was significantly predicted was MFS scores at 18 months postcrime. They explained 31% of the variance. IES scores were not predicted at all by the HOV variables. Therefore, the pattern that emerged for male robbery victims was that overall distress symptoms and poorer self-esteem were associated with a greater history of victimization within the first six months postcrime.

5. Frequencies of victimization.

In order to facilitate interpretation of the findings, some of the history of victimization categories were reduced further in order to calculate percentages. Because these historical variables had been scored as continuous variables for the preceding analyses it was not possible to determine the actual number of participants who had been victimized in various ways. In order to calculate percentages, definitions were established. Participants were considered to have been physically abused if they were physically injured by a parent. Given this definition, 45% of the rape victims, 44% of the female robbery victims, and 36% of the male robbery victims (from session one) reported having been physically abused by a parent in childhood.

Child sexual abuse was defined as being the victim of fondling or having sex with an adult while under the age of 17. This definition included abuse by a relative, caretaker, neighbor, stranger, or friend of parent(s). Using this definition, 27% of the rape victims, 41% of female robbery victims, and 38% of male robbery victims reported child sexual abuse. Five questions concerned punishment by parents that was not physical but which could be construed as abusive (e.g., " told that I was bad, stupid or dumb", "cursed at with obscene or violent language", "locked in a closet"). If research participants indicated that their parents punished them with any of these methods half of the time or more they were considered to have been emotionally abused. By this definition, 49% of the rape victims, 43% of the female robbery victims, and 50% of the male robbery victims had been emotionally abused.

Five questions were concerned with whether the participants' parents hit or beat each other, other children in the home, people outside the family, or whether there was much violence in the victim's school or home. Fifty-six percent of the rape victims denied any kind of violence in their family or neighborhood. The remaining 44% had been exposed to at least some violence. Fifty-three percent of the female and 51% of male robbery victims reported no violence in their families or neighborhoods.

Domestic violence was defined as being hit a few times a year or more or having been beaten by a spouse at least once. Twenty-five percent of rape victims, 37% of female robbery victims and 16% of male robbery victims reported having been the victim of domestic violence.

Seventeen crimes (nonfamilial) were listed and defined for participants in order to assess the frequency of victimization. They ranged from stealing to attempted murder. As a few examples of the percentages that were reported: 51% of the total sample had their home burglarized, 79% had something stolen, 16% had been assaulted (major), and 23% had been the victim of an attempted murder (32% of men vs. 17% of women). When asked the number of separate victimization experiences, 54% of rape victims, 66% of female robbery, and 74% of male robbery reported more than one incident.

G. Indicators of Prior Psychological Problems.

Three variables were examined as crude indicators of prior psychological problems: prior psychiatric/ psychological treatment (medications, hospitalizations or therapy for emotional problems)(PPT), depression and suicide history (DAS), and treatment for alcohol or drug abuse (CD). These variables were constructed from several items each from the Counseling Questionnaire. An examination of the frequency of variables revealed that few female participants had a history of treatment for chemical dependency. Therefore, that variable was excluded from the analyses except the male vs. female MANOVA and the stepwise regression analyses with male robbery victims.

1. MANOVAs.

a. Rape versus robbery victims. There were no significant differences between rape and robbery victims on

history of psychological problems/treatment at any of the five sessions.

b. Male versus female robbery victims. Overall MANOVAs of sex differences in prior psychological problems were significant at all five sessions (See Table 24). Univariate analyses varied somewhat across sessions. At the first session women reported a history of depression and suicide attempts more frequently than men, and there was a trend for women to report more psychological treatment. At three and six months postcrime women again reported more precrime depression and suicide attempts, but were not different with regard to treatment. There was, however, a trend for men to report more treatment for chemical dependency at six months. At 12 months, women reported that they had been more likely to receive precrime psychological treatment but there was only a trend on depression and suicide. At 18 months postcrime all ANOVAs were nonsignificant but there was a trend for men to report more treatment for chemical dependency.

It is difficult to draw definitive conclusions regarding sex differences in precrime problems. However, it appears that women were more likely to have suffered from depression and to have made more suicide attempts. They were also somewhat more likely than women to have received some type of treatment for psychological problems. There was a slight indication that men were more likely to have received treatment for chemical dependency. All of these findings are consonant with sex differences in mental health in the general population.

2. Covariance analyses of male and female robbery victims.

Table 25 presents the results of the ANCOVAs of prior psychological problems for male and female robbery victims. There were no changes from the original analyses on the GSI, TSCS, or MFS. There were slight differences on the IES and BDI. On the original IES ANOVAs, female robbery victims scored significantly higher than male robbery victims at the first session. On the covariance analyses, female victims reported higher scores on the one and three month sessions. The original BDI ANOVAs were significant at only the first session. After eliminating the effects of prior psychological problems, BDI was nonsignificant at all sessions, although there was a trend at one month ($p<.06$).

3. Regression analyses.

a. Rape victims. Rape victims appear to be relatively unaffected by any prior history of psychological problems during the present trauma. Only two measures were predicted by one of the variables at the first session. GSI and TSCS scores at session one were predicted by a history of depression and suicidal ideation and attempts. The only other variable to predict symptomatology at any other session was prior psychological treatment (PPT) at 18 months, predicting MFS scores. PPT accounted for 19% of the variance. These findings are presented in Table 26.

b. Female robbery victims. Table 27 presents the findings of the stepwise multiple regression analyses. The Global Severity Index was significantly predicted by a history of depression and suicide attempts (DAS) at 1, 6, and 18 months postcrime. Problems with self-esteem (TSCS) were predicted at one month by the set of two variables, DAS and PPT, which explained 20% of the variance. DAS also predicted problems with self-esteem at six months postcrime (R^2=.21). None of the three variables predicted self-esteem at 12 months but prior psychological treatment (PPT) predicted problems at 18 months and explained 15% of the variance.

MFS was predicted by DAS and PPT at 1 month, PPT at 6 months, none of the variables at 12 months and CD at 18 months. Similarly, IES scores were predicted by DAS and PPT at 1 month, PPT at 6 months, none at 12 months and PPT at 18 months postcrime.

The pattern that emerged for female robbery victims was for a treatment history and a history of depression and suicide attempts to be predictive of greater symptomatology at one month postcrime across the four measures, and for a depression and parasuicidal history to affect global severity and self-esteem at 6 months. The PTSD measure was predicted better at 6 months postcrime by prior psychiatric/psychological treatment. None of the predictors emerged as significant on any of the symptom summary variables at 12 months postcrime. Finally, a history of treatment for psychological/psychiatric problems was most predictive of longterm problems for female robbery victims.

c. Male robbery victims. GSI was best predicted at 1, 6, and 12 months postcrime by a history of depression and suicide attempts (DAS) and at 18 months by prior psychiatric

treatment (PPT). These variables accounted for 8-14% of the variance. Problems with self-esteem were best predicted by a set of two variables, PPT and DAS at 1 month, PPT at 6 months, and DAS at 12 and 18 months postcrime. These variables explained moderate amounts of the variance. Neither the MFS nor the IES were predicted by any of the three variables at 1 or 6 months postcrime. IES scores were also not correlated with a history of prior psychological problems at 12 or 18 months postcrime. However, DAS was associated with greater MFS scores at 12 and 18 months postcrime. Table 28 displays the results of these analyses.

Overall, fear and PTSD symptoms in the first half year following robbery were not predicted by male subjects' precrime history of psychological problems. However, general distress and self-esteem were associated with subjects who had histories of prior treatment or depression and suicide attempts. Prior treatment for chemical dependency in male robbery victims did not emerge as a significant predictor of more severe problems following the current crime.

H. Assault Variables.

A third set of predictor variables concerned assault factors. These were generated from the Crime Information Questionnaire. The seven variables included acquaintanceship status with the assailant, number of assailants, whether the assailant threatened the victim or displayed a weapon, how much the victim was restrained, the length of the crime, and the extent of injuries. Tables 29 and 30 present the findings of MANOVAs, Table 31 presents covariance analyses of rape and robbery victims, and Tables 32-34 present regression analyses.

1. MANOVAs.

a. Rape versus rape-robbery victims. There were no significant differences between rape and rape-robbery victims at any of the five sessions. It is unlikely that differences in self-esteem reported by rape-robbery and rape victims would be accounted for by differences in their crimes.

b. Rape versus robbery victims. MANOVAs comparing assault variables of rape and robbery victims were significant at all five sessions. At one month postcrime, the two groups differed on five of the seven variables.

Robbery victims were more likely to be assaulted by more than one assailant while rape victims were more likely to experience more threats, restraint, injuries, and greater length of crime. There were no differences in the acquaintanceship status of the assailant or whether the assailant displayed a weapon. The findings at three months postcrime were similar except there was no difference in the extent of injuries sustained. At six months postcrime, the sample tested reported differences on six of the seven variables. The only variable on which there was no difference reported was acquaintanceship status with the perpetrator.

At 12 months postcrime rape victims reported greater use of threats, restraint, injuries, and greater duration of the crime than did robbery victims. The two groups reported no differences on number of assailants, display of weapons, or acquaintanceship status. At 18 months postcrime rape victims reported more threats, restraint, and greater crime duration, while the robbery victims again reported more assailants. There were no differences in acquaintanceship status, the extent of injuries, or whether the assailant displayed a weapon.

Despite some changes in the sample composition, sample size, and passage of time, these analyses are rather consistent. While robbery victims are more likely than rape victims to be victimized by more than one assailant, rape victims are subjected to more threats, restraint, injuries and longer crime duration. It is also interesting that female robbery victims are as likely to be robbed by an acquaintance as rape victims are to be attacked by one. The differences between the two crimes could play an important role in the differences in victim reactions that were observed between the two groups. Because of the greater threats, restraint, injuries, and crime duration, the crime of rape may be perceived as more life threatening, which could lead to greater fear and post-traumatic stress disorder.

c. Male versus female robbery victims. The MANOVAs were significant at all five sessions, thus univariate analyses were conducted at each session. At one month postcrime the research sample reported significant sex differences on four of the seven variables. Male robbery victims were more likely to report a greater number of assailants, the display of a weapon(s), more threats, and greater extent of injury than female robbery victims. There

was a trend on one other variable; female victims were somewhat more likely to know their assailants.

Findings at the three month assessment session were that male robbery victims were more likely to be accosted by more than one perpetrator and be subjected to more threats. There was only a trend on whether the perpetrator(s) displayed weapons. At six months postcrime, two variables, greater number of assailants and display of weapon(s) occurred significantly more often in robberies of men. There were trends on the extent of threats and injuries. As the sample size decreased further at the 12 month session, only one variable continued to differentiate the groups, the number of assailants. There were trends on threat and acquaintanceship status as at earlier sessions. At 18 months, some of the differences again emerged. There were significant differences on number of assailants, acquaintanceship status, and the use of threats. There were also trends on whether the assailant displayed weapon(s), the extent of restraint, and length of crime.

The findings of these analyses were rather consistent despite the passage of time and some differences in the composition of the sample across sessions. More force was used against male than female robbery victims. Men were significantly more likely than women to have more than one assailant, be subjected to threats and the display of weapons and be assaulted by strangers. It is not obvious from these findings why women report more fear (MFS & IES) following robbery than men. It could be that some of their fear and anxiety preexisted the crime, they perceived the crime as more life threatening, they reacted differently during the crime, or perhaps that, in general, they are more conditionable than men. At any rate, the differences in assaults between male and female robbery victims do not account for the differences in their reactions.

2. Covariance analyses.

Because there were so many assault differences between rape and robbery victims, it would be helpful to eliminate these differences to discover whether rape victims still have more problems than robbery victims following the crime after the assault differences have been accounted for. Covariance analysis eliminated the effect of the assault variables. As with the history of victimization variables, the assault variables were reduced to a single assault index by standardizing the scoring and then summing the scores of

the seven variables. The resulting assault variable index was used as the covariate in subsequent ANOVAs. Four summary variables plus the Beck Depression Inventory were used to reduce the number of analyses.

Results are presented in Table 31. On the GSI, differences between rape and robbery victims were reduced somewhat. There were still significant differences at session three, although the magnitude of the differences was reduced. The difference previously found at the six month session dropped out. In the original analysis of the TSCS there were differences between rape and robbery victims in self-esteem at 6 and 18 months postcrime. On the covariance analyses of TSCS, differences were eliminated and all analyses were nonsignificant. There was no change in the analyses of the MFS. They were nonsignificant at all sessions on both types of analysis.

The original analyses of the IES resulted in significant differences at all five sessions. On the covariance analyses, rape victims had significantly higher IES scores than robbery victims at the first three sessions but were no longer significantly different than robbery victims at the 12- and 18-month sessions. There was, however, a trend at the 12 month session ($p < .07$). And finally, on the original analyses of BDI, the rape victims scored significantly higher than robbery victims at all but the 12-month session. On the covariance analysis, rape victims still scored higher than robbery victims through the six month session, but there were no differences at the 12- or 18-month sessions.

The results of covariance analyses indicate that differences in the assault (e.g. threats, restraint, length of crime) between rapes and robberies do account for some of the differences that were found between the two groups. When those variables are taken into account it appears that there are no longer differences in self-esteem, little difference in overall distress, and after the first six months no differences in depression or PTSD symptoms. However, all differences were not eliminated, especially in the first six months, so it is apparent that some other variable or variables account for the remaining differences between rape and robbery victims.

3. Stepwise regression analyses.

a. Female rape victims. Almost none of the assault variables predicted subsequent symptoms or self-esteem in the sample of rape victims. The only significant predictors were the extent of threats which predicted GSI scores and restraint which predicted IES scores. These variables explained 21% and 18% of the variance, respectively, at the six month session.

b. Female robbery victims. The only assault factors to predict GSI at any of the sessions was at 12 months: the extent of restraint which accounted for 22% of the variance. Acquaintanceship status was the only assault variable to predict overall self-esteem. It was not predictive at one month postcrime, but did predict significantly the three subsequent sessions that were examined and explained 11- 21% of the variance. In these cases it was negatively related such that greater acquaintanceship with the assailant led to lower self-esteem over time.

MFS total was not predicted by any of the assault variables at one month postcrime but was predicted by one variable each at 6, 12, and 18 months. At six months, whether or not the assailant displayed a weapon was related to the total MFS scores (R^2=.08) and at 12 months the extent of threats against the victim predicted MFS total and explained 20% of the variance. At 18 months postcrime the extent of injuries significantly predicted greater problems with fear.

On the IES, there were no significant predictors at 1 month postcrime, but threats predicted PTSD symptoms, as measured by the IES (R^2=.13) at 6 months and 12 months (R^2=.23). Acquaintanceship status predicted symptoms at 18 months postcrime. This predictor explained 10% of the variance.

Conclusions. Overall, it appears that acquaintanceship with the perpetrator is associated with problems with self-esteem in female robbery victims while the extent of threats were associated with fear and PTSD symptoms. Earlier analysis indicated that female robbery victims were more likely to be assaulted by an acquaintance than male robbery victims. No other variable emerged with any consistency across sessions or instruments. It should also

be noted that none of the assault variables were associated with problems initially at the one month session.

c. Male robbery victims. As with rape and female robbery victims, very few of the assault variables predicted subsequent reactions. GSI was significantly predicted (at one month postcrime) by the number of assailants and (at six months postcrime) by the extent of restraint. Neither of these variables accounted for much of the variance (5 and 6% of the variance respectively). At 12 and 18 months there were no significant predictors.

None of the assault variables predicted self-esteem at the 1, 6, or 18 month postcrime assessment periods. At 12 months, number of assailants entered the equation and explained 8% of the variance. MFS scores were not predicted by any of the assault variables at any of the four sessions. The only variable to predict IES scores was the number of assailants at 1 month postcrime. Again, this variable accounted for only 4% of the variance.

Conclusions. The overall picture is that assault variables played very little role in the reactions and recovery of male robbery victims. The only variable to emerge in the analyses more than once was the number of assailants, but even that variable accounted for very little of the variability in the scores. The finding that number of assailants predicted reactions is consistent with the fact that male robbery victims were more likely to be assaulted by more than one assailant than female robbery victims.

I. Within-Assault Reactions.

The third set of predictor variables concerned victims' reactions during the assault. Three variables examined behavioral responses. Victims' responses were summarized as passive (e.g., "kept quiet and motionless", "did exactly as I was told", "tried to talk my way out of it"); active (e.g., "screamed or yelled for help", "tried to run away"); or aggressive (e.g., "cursed or threatened", "kicked, hit or punched"). Three emotional reactions were: included, anxious, calm, or angry .

Finally, three indices were developed to reflect perceptions of imminent harm. Participants were asked to rate how much of the time during the assault they thought

about the possibility of being injured, killed, or someone else being injured or killed (i.e., a loved one, not the assailant). They were also asked to rate their certainty during the crime of their being injured (or injured further), killed, or of a loved one being injured or killed. For each type of question (injury, death, or harm to a loved one) the amount of time considering the possibility was multiplied by the certainty. Therefore, three indices were developed: perception of imminent injury, perception of imminent death and perception of harm to others.

Nine predictor variables were subjected to MANOVAs to determine whether there were crime or sex differences and then stepwise multiple regression analyses in order to predict the four summary variables. The predictor variables were: passive behavior, active resistance, aggressive resistance, anxious, calm, angry, perception of imminent death, perception of imminent injury, and perception of harm to others.

1. MANOVAs.

a. Rape versus robbery victims. Results of the rape versus robbery MANOVAs are presented in Table 35. The comparison of rape and robbery victims' reactions during the assault were significantly different at all five assessment sessions. At session one, rape victims reported that they engaged in more active and passive responses during the crime, and they were more anxious and experienced greater perception of imminent death and perception of imminent injury than robbery victims. Although it did not quite reach the established level of significance, robbery victims tended to report being calmer during the crime. There were no differences between the two groups on aggressive resistance, feeling angry, or perception of danger to loved ones.

The results of the univariate analyses at three and six months were almost identical. Rape victims reported more passive, active, and aggressive behavioral responses, as well as greater anxiety, and greater perception of imminent death or injury than robbery victims. Again, at both sessions there was only a trend for robbery victims to report being calmer during the crime and no differences in reported perception of harm to others. There was however, a trend at the three month session, for rape victims to feel more anger during the crime, which was clearly nonsignificant at the six month session.

At the 12-month session, the sample of rape victims that remained reported that they had engaged in more passive and active behavior, and had experienced greater perceptions of imminent death or injury than the robbery victims. They did not report more anxiety or aggressive behavior at this session. However, the variable calm reached significance with robbery victims reporting that they had been calmer during the crime.

At 18 months postcrime, the only differences between the rape and robbery victims were that rape victims reported more passive behavior during the crime and that they experienced greater perception of imminent death or injury. There was also a trend for rape victims to report more anxiety during the crime.

The differences between the rape and robbery victims' reactions that were most consistently reported were greater passive behavior and perception of imminent death or injury among rape victims. They also were relatively consistent in reporting greater active resistance and anxiety during the crime. These findings are quite consistent with the hypotheses of this project that some of the differences in reactions between rape and robbery may be due to the difference in perception of the life threatening nature of the crime of rape relative to robbery.

b. Male versus female robbery. MANOVAs comparing within-assault reactions of male and female robbery victims were significant at the first four sessions but nonsignificant at 18 months postcrime (see Table 36). At one month postcrime, male robbery victims reported significantly more passive responses than female robbery victims. They also reported a trend toward being calmer during the crime. Women reported being significantly more anxious and having a greater perception of imminent danger to loved ones. Men and women were not significantly different on the following variables: active resistance, aggressive resistance, angry, perception of imminent death, or perception of imminent injury.

The results at three months were similar. Women reported being significantly more anxious and having a greater fear of harm to loved ones. There was also a trend for the women to feel more anger during the crime. There were only trends for the men to report more passive resistance behavior and for them to be calmer during the crime. At six months postcrime men and women reported being

significantly different on only two of the nine variables, anxious and angry. In both cases women reported greater levels than men. Analyses at 12 months postcrime revealed only one difference in the reporting of within-assault reactions. Women reported significantly more anxiety than men.

It is not known whether the decrease in differences over time is due to the decrease in the sample size, slightly different composition of the groups, or whether participants' memories of the event change over time. Overall, however, it appears that there are not many differences in the within-assault reactions of male and female robbery victims. The only variable that appeared in three out of four assessment sessions was anxiety. It is possible that this greater anxiety during the assault could account for the differences in the development of PTSD symptoms between women and men. Such a finding supports a classical conditioning model of fear.

2. Covariance analyses

The covariance analyses for within-assault variables used three covariates rather than one. The reactions that were explored concerned thoughts, feelings, and behavior. While there is some justification in summing different reactions within these categories, there was no reason to assume that one could sum across categories. Therefore, three covariates were entered representing the three reactions: perceptions, emotions and resistance.

a. Female rape versus robbery victims. Table 37 depicts the results of the covariance analyses. On the original ANOVAs of GSI, rape victims scored significantly higher than robbery victims at three and six months postcrime. After removing the effect of within-assault reactions, rape victims scored higher than robbery victims at only one session, three months. The BDI had been significantly different at all but the 12-month session, but the covariance analyses eliminated these differences. All of the ANCOVAs were nonsignificant.

The original TSCS analyses resulted in significant differences between robbery and rape/robbery victims at 6 and 18 months. The within-assault ANCOVAs of TSCS were all nonsignificant. All of the MFS analyses were nonsignificant originally and continued to be so on the covariance analyses with one exception. At 12 months postcrime, robbery victims

scored significantly higher than rape victims. Rape victims scored significantly higher than robbery victims at all of the sessions on the IES originally. After covarying participants' within-assault reactions, rape victims scored higher than robbery victims only at the six-month session.

b. Female versus male robbery victims. Table 38 presents the results of the within-assault covariance analyses of male and female robbery victims. There were no changes in the results from the original analyses after the effects of within-assault variables were eliminated.

Conclusions. Overall, as with the assault variables, the within-assault variables appear to account for much of the difference between rape and robbery victims but not for the differences between male and female robbery victims. Differences between the crimes probably elicit different reactions from victims which moderate their subsequent reactions and recovery. When those within-assault differences are eliminated there are very few differences between the reactions of robbery and rape victims.

It had been speculated that the greater anxiety women reported experiencing during the crime might help account for the sex differences on some of the measures at the one month session. However, when the effect of within-assault anxiety was eliminated through covariance analyses, the women still had greater fear, depression and PTSD symptoms at one month postcrime. Therefore, within-assault anxiety does not account for the sex differences that were observed.

3. Stepwise regression analyses.

a. Female rape victims. Results of the stepwise regressions are listed in Table 39. At 1 and 12 months postcrime there were no within-assault reaction variables that predicted rape victims' GSI scores. At 6 months postcrime, a set of two variables, "active resistance" and "angry", predicted GSI. Active resistance was negatively weighted such that greater resistance was more predictive of lower GSI scores at six months postcrime. Angry was positively weighted such that greater anger during the crime predicted greater distress as measured by the GSI. These two variables accounted for 28% of the variance in scores. At 18 months postcrime, three variables, angry, active resistance, and perception of imminent injury (PII) accounted for 77% of the variance. Greater levels of active

resistance and PII predicted lower GSI scores while anger predicted higher scores.

None of the within-reaction variables accounted for the variability in TSCS scores at one or six months. At 12 months two variables, calm and angry, predicted greater self-esteem and accounted for 41% of the variability in scores. Calm was positively related and anger was negatively related to self-esteem. At 18 months only one measure significantly predicted TSCS. Greater perception of imminent death (PID) predicted higher self-esteem and accounted for 41% of the variance.

None of the within-assault reactions entered the prediction equation for the total MFS scores at any session. The within-assault reaction variables did not predict IES scores at 1, 6, or 18 months postcrime. At 12 months two variables, angry and anxious, predicted 49% of the variance. Both were positively related to greater PTSD symptomatology.

Conclusions. Unlike assault variables, within-assault reactions of rape victims did account for a substantial amount of the variance at some of the later assessment sessions. They did not predict initial reactions at one-month postcrime, did not predict most of the measures at six months postcrime, and did not particularly predict MFS scores. However, women's reactions during the crime are strongly associated with overall distress levels at 6 and 18 months, self-esteem at 12 and 18 months, and IES scores at 12 months postcrime.

The variable to emerge most frequently was within-assault anger, which was associated with more symptomatology and poorer self-esteem. Interestingly, contrary to hypothesis, perception of imminent death or injury during the crime was associated with better functioning at 18 months postcrime. Perhaps rape incidents that are viewed as more life threatening are subject to less victim-blame and are dealt with more openly than rapes viewed as less life threatening.

b. Female robbery victims. Results of the stepwise regression analyses are found in Table 40. At 1 month postcrime, two variables, passive behavior and angry predicted distress as measured by the GSI. They accounted for 18% of the variance. At 6 months postcrime anxious was the only variable to significantly predict GSI, and it predicted only 9% of the variance. At 12 months, PII,

aggressive resistance and PDO (perception of danger to others) predicted 43% of the variance in GSI scores, and at 18 months, one of the nine variables, aggressive resistance, entered the regression equation. However, aggressive resistance only accounted for 9% of the variance.

On the TSCS at one month postcrime, aggressive resistance and perception of imminent death (PID) predicted overall self-esteem and accounted for 17% of the variance. Both were weighted negatively such that greater aggressive resistance and perception of imminent death resulted in lower self-esteem. At six months postcrime aggressive resistance continued to predict problems with self-esteem but accounted for only 7% of the variance. At 12 months postcrime greater aggressive resistance during the crime predicted lower self-esteem and accounted for 18% of the variance. At 18 months none of the predictor variables entered the equation.

PID predicted 10% of the variance in MFS scores at session 1. At six months postcrime, anxious predicted greater MFS scores and accounted for 16% of the variance. At 12 months postcrime both PID and anxious predicted greater fear and together accounted for 38% of the variance in scores. However, at 18 months there were no significant predictors of MFS scores.

A set of two variables best predicted IES total at one month postcrime. Anxious and angry during the assault accounted for 16% of the variance in IES scores. At six months postcrime, anxious accounted for 10% of the variance in predicting IES scores. PID and aggressive resistance predicted IES at 12 months and explained 69% of the variance. At 18 months postcrime only one variable predicted IES scores. Aggressive resistance explained 9% of the variance.

Conclusions. Overall, these within-assault victim reactions did emerge as predictors of later problems with fear, distress, and self-esteem across measures and sessions. Unlike the reactions of rape victims, these variables were associated with reactions at one month postcrime but were only weakly associated at the 18-month session. Although no clear pattern emerged, the following observations might be made: 1. Perception of imminent death emerged as a predictor on two of the measures at 1 month postcrime but perceptions of danger (death, injury, or harm to others was more associated with the level of

symptomatology at 12 months postcrime. 2. Aggressive resistance emerged frequently as a predictor, particularly with regard to self-esteem and PTSD symptoms. 3. Aggressive resistance also appeared to be more influential at the later sessions. 4. Being anxious during the assault was associated with problems with anxiety, particularly as measured by the MFS and IES.

c. Male robbery victims. Table 41 depicts the results of the stepwise regressions for the male robbery group at all four sessions. The only variable to enter the equation at session 1 to predict GSI was anxious, which explained only 8% of the variance. At six months postcrime perception of imminent injury predicted GSI. At 12 and 18 months postcrime, anxious was the only variable to enter the equation, and it predicted 15% and 14% of the variance respectively.

On the TSCS no variables were predictive at 1, 6, or 18 months postcrime. However, at 12 months postcrime, TSCS scores were predicted by one variable, calm. Being calm during the crime was predictive of greater self-esteem 12 months later. It accounted for 14% of the variance.

On the MFS at one month postcrime anxiety and active resistance predicted 17% of the variance. At the remaining three sessions anxious emerged as a significant predictor. At 6 and 12 months it accounted for 21 and 20% of the variance. At 18 months anxious and perception of imminent injury both emerged as the best set of predictors and together accounted for 22% of the variance. Those men with greater anxiety during the crime apparently had greater difficulty with fear-producing stimuli later in the recovery period.

At session one perception of imminent death (PID) was the only predictor of IES. Men who perceived that they were in imminent danger were more likely to have symptoms of post-traumatic stress disorder one month after the crime than those who had less perception of imminent death. At 6 months PID and angry significantly predicted IES scores and accounted for 26% of the variance. No variables entered the prediction equation at 12 or 18 months postcrime.

Conclusions. Anxious appears to be the best within-assault variable in predicting long-term reactions and recovery in male robbery victims. The level of within-assault anxiety emerged as the single best predictor

for global distress (GSI) at three of the four sessions and also predicted MFS at all four sessions. Perception of imminent death predicted PTSD symptoms (IES) at 1 and 6 months, while perception of imminent injury appeared to predict fear and distress at two of the four sessions. It appears that those men who were more anxious and anticipating that they would be killed or injured had more problems with symptomatology, particularly fear and PTSD symptoms, in the year and a half that followed the crime.

J. Postcrime Social Support.

Social support analyses included three variables. One variable consists of the sum of 20 questions regarding who the victims talked to about the crime (TALKCRIME). One variable consists of 20 questions assessing the number of people victims talk to on a regular basis, their network size (NREGTALK). The third variable assesses perceived social support by summing 6 questions regarding how important people and other people reacted initially and currently and the victim's feelings about those reactions (PERCEIVE). Tables 42-47 depict the results of MANOVAs, ANCOVA and stepwise regression analyses.

1. MANOVAs.

a. Rape versus robbery victims. The MANOVAs at the one and three months sessions were nonsignificant. At six months the MANOVA was significant and the univariate analyses indicated that robbery victims talked to significantly more people regularly than rape victims. MANOVAs at 12 and 18 months were nonsignificant.

b. Male versus female robbery victims. The MANOVA comparing the social support of female and male robbery victims was significant at 1 month postcrime. ANOVAs indicated that female robbery victims talked to more people, more frequently about the assault than did male robbery victims. However, by the three-month session there were no differences between women and men regarding their network size, how much they talked about the crime or their perceived social support. The MANOVAs at 3, 6, 12, and 18 months postcrime were all nonsignificant.

2. Covariance analyses of female rape versus robbery victims.

Because of the difference in network size at six months postcrime between rape and robbery victims, it was decided to covary social support to determine its effect on recovery. There was very little change in the results from the original to the covariance analyses. There was no change at all on the GSI, MFS, or IES results. On the original analyses of the BDI there were significant differences at 1, 3, 6, and 18 months. On the ANCOVA there were differences at 1, 6, and 18 months but not at 3 months. On the original TSCS for two groups, there were differences at 6 and 18 months but on the covariance analyses there was a difference between robbery and rape victims only at the 6 month session.

3. Regression analyses.

a. Female rape victims. Social support predicted reactions of rape victims at only one session on one measure. Victims' perceived social support and the extent to which they talked about the crime with others predicted GSI scores at session one and accounted for 23% of the variance. Less perceived social support and discussion with more people over more occasions were associated with greater overall distress at one month postcrime. Although it might be possible to speculate about the relationship between these variables, it is also possible that the findings were by chance. The only conclusion that can be drawn is that social support does not play a major role in the reactions and recovery of rape victims except possibly in a minor way initially.

b. Female robbery victims. In contrast to the sample of rape victims, female robbery victims' reactions appear to be influenced more by social support. GSI scores were predicted by perceived social support at 1 and 12 months postcrime, by the extent to which they talked about the crime at 1 month, and by network size at 6 months postcrime. These variables explained between 11 and 17% of the variance. In all but one case the relationship was inverse, whereby better support or larger network size was associated with lower distress scores. More discussion about the crime at one month postcrime was associated with more distress.

On the TSCS, at the 1 and 18 month assessment, greater levels of perceived social support were associated with positive self-esteem. This variable accounted for 18% and 13% of the variance respectively. None of the variables predicted TSCS scores at 6 months, but at 12 months the number of people talked to about the crime predicted poorer self-esteem.

MFS was predicted by perceived social support only at the first assessment session and explained 13% of the variance. Similar to the analyses on GSI, IES scores were predicted by perceived social support at 1 and 12 months postcrime and by network size at 6 months postcrime. At earlier sessions the variables accounted for 11% and 13% of the variance but at 12 months, perceived social support explained 53% of the variance. None of the three variables were predictive at the 18-month session. As with GSI, relationships between the two variables and IES were inverse so that those who had better perceived support and greater regular contact with people had fewer PTSD symptoms.

Conclusions. The pattern of results for female robbery victims indicates that perceived social support is important initially in the prevention of symptoms and maintenance of self-esteem, and over time in the recovery from PTSD symptoms in particular. Women who had a larger number of people who they regularly talk to appeared to have less distress at six months postcrime. Rather than indicating less distress, talking about the crime to more people appears to be associated with more distress and poorer self-esteem. These later findings were not as strong however.

c. Male robbery victims. The GSI scores of male robbery victims were not predicted by any of the social support variables at 1 or 18 months postcrime. At 6 months postcrime GSI was predicted by a set of two variables, perceived social support and the number of people talked to about the crime. Better support predicted less overall distress but talking to more people about the crime was associated with greater distress. These two variables together accounted for 26% of the variance. At 12 months the number of people talked to about the crime was again positively related to the severity of symptoms.

Self-esteem was not predicted at session one by any of the variables. At 6, 12, and 18 months postcrime, perceived

social support was positively related to self-esteem. It accounted for 20-24% of the variance at these sessions.

MFS scores were not predicted by any of the social support variables at 1, 6 or 12 months. At 18 months there was an inverse relationship between perceived social support and MFS scores. Positive social support was associated with lower MFS scores.

IES was predicted at one month postcrime by the number of people that the victim discussed the crime with, again indicating that those who talked about it more had more PTSD symptoms. IES was not predicted by any of the social support variables at any of the three later assessment sessions.

Conclusions. Stepwise regression analyses examining the relationship of social support variables and symptoms in male robbery victims resulted in different patterns of findings than those of female robbery victims. Unlike the the findings for female robbery victims, social support variables were not strongly associated with their initial reactions at one month postcrime nor the development of PTSD symptoms. These variables were more likely to emerge as predictors in the analyses of later sessions.

Better perceived social support was associated with lower symptom levels and greater self-esteem. On the other hand, as with female victims, the variable, total number of people talked to about the crime, was associated with more distress. One cannot assume that talking to more people is harmful however, because correlation of the two variables does not imply a causal connection. It could be that those victims who are more distressed seek out more people to talk to and that the variable is merely a reflection of the level of distress in these people. Overall, however, on all of the analyses of all three crime groups, better reactions from loved ones and others was associated with less symptomatology and better self-esteem.

K. Postcrime Behavioral Responses.

Postcrime behavioral responses were at first considered to be an outcome variable and were subjected to analyses with the initial cross-sectional and longitudinal analyses (See sections III.D.1 and III.D. 2). However, because some recent research has considered such behavioral changes to be "coping" mechanisms on the part of the victims, it was

decided to include these variables with the regression analyses. If such behaviors constitute good coping, then we would expect them to be associated with better symptom scores across sessions. If, however, they are associated with more symptomatology over time, then they should not be considered coping but merely another form of reaction to the crime. The eight items that comprise the scale were entered individually into the stepwise regressions in order to determine whether any or all of them might be associated with the four outcome variables. See Tables 48-50.

1. Female rape victims.

GSI scores were predicted by one of the postcrime behavioral response items at 1, 6, and 18 months postcrime. At session one, women who had avoided being alone more since the crime had more global distress. That variable accounted for 20% of the variance. At 6 months, changing daily habits and patterns were associated with greater distress. At 18 months postcrime, change in the amount of physical exercise was associated with GSI scores (R^2=.27). None of the variables were associated with self-esteem.

Total MFS was best predicted at one month postcrime by a set of two items, avoidance of being alone and change in physical exercise. Together they accounted for 33% of the variance. At six months 56% of the variance was predicted by a set of two variables, change in habits and patterns and taking a self-defense class. Changing habits and patterns also predicted higher MFS scores at 12 months postassault and accounted for 44% of the variance, but none of the items predicted reactions at 18 months.

IES was not predicted by any of the behavioral response items at one month postassault but was predicted by an increase in safety measures at 6 and 12 months postcrime. This variable accounted for 13% and 48% of the variance respectively. At 18 months postcrime PTSD symptoms were predicted significantly by the victim avoiding being alone. This single question accounted for 73% of the variance in IES scores.

Conclusions. In all cases except one, postcrime behavioral responses rape victims engaged in following the crime were associated with greater symptomatology. In fact, at 18 months, avoidance of being alone accounted for a remarkable amount of the variance in IES scores. At 18 months postcrime, an increase in physical exercise was

associated with lower GSI while a decrease in exercise was associated with higher symptoms. The item was by-directional such that a low score indicated stopping or decreasing exercise while a high number indicated an increase. A medium number (3) indicates no change in behavior. The mean scores rape victims obtained on this item ranged from 2.26 at one month postcrime to 1.85 at 18 months postcrime. The means for rape victims on this item indicate that the average response was to decrease the usual amount of exercise. The standard deviations were less than one. Therefore, the majority of rape victims reported that they decreased their exercise.

Except for those who increased their physical exercise, these behavioral changes cannot be construed as "coping" in any positive sense but merely reflect the level of fear and avoidance that victims experience. Interestingly, these behavioral responses were not associated with self-esteem at all. Two items, avoidance of being alone and changes in habits and patterns (e.g. don't go out, leave lights on at night) emerged three times each and clearly illustrated the avoidant nature of the victim reactions.

2. Female robbery victims.

Avoidance of being alone emerged as a significant predictor of GSI scores at all four sessions and accounted for 12-35% of the variance. At six months postcrime, avoidance and a change in physical exercise together explained 31% of the variance in scores. Unlike the findings for rape victims, several items were associated with self-esteem in female robbery victims. An increase in the use of safety measures and taking a self-defense class predicted lower TSCS scores (lower self-esteem) and accounted for 31% of the variance. None of the response items predicted TSCS scores at 6 months, but taking self-defense predicted lower TSCS scores at 12 months. An increase in physical exercise predicted higher scores at 18 months, while a decrease was associated with lower self-esteem. As was reported for rape victims, the average response of female robbery victims to this item across sessions was 2.2, indicating a decrease in exercise.

MFS scores were predicted at one month by a set of two variables, avoidance of being alone and a change in physical exercise. Again, an increase in physical exercise was associated with lower MFS scores, while a decrease was associated with more fear. At six months, a different set

of two variables, changed or lost job because of the crime and increase in safety measures, accounted for 25% of the variance in predicting higher MFS scores. At 12 months there was a set of three predictors: avoidance of being alone, taking a self-defense class, and changing who she lived with (R^2 =.68). The last item was negatively loaded such that not changing who she lived with was associated with higher MFS scores. At 18 months the significant and positively associated predictors were changing or losing a job because of the crime and avoidance of being alone. Together they explained 33% of the variance.

Higher IES scores were associated with changes in daily habits and patterns at session one and with three items (victim changed who she lived with, increased physical exercise, and changed habits and patterns) at 6 months postcrime. The three variables explained 61% of variance in IES scores. At 12 months taking self-defense accounted for 68% of the variance, but none of the behavioral response items entered the regression equation at 18 months postcrime.

Conclusions. A range of items significantly predicted female robbery victims scores on different measures across the four time periods. Most prominent were avoidance of being alone, a change in physical exercise, and taking a self-defense class. As with the responses of rape victims, the postcrime reactions of female robbery victims were associated, for the most part, with greater symptomatology across the 18 months postcrime and so did not appear to function as effective coping strategies. One puzzling finding was the change in direction in two of the items at six months postcrime. Changing who she lived with and change in physical exercise loaded in the opposite direction on the prediction of IES scores than they had previously. It is unknown what the significance of this is, if anything.

3. Male robbery victims.

As with the female robbery victims, the best predictor of GSI scores of the male robbery victims was avoidance of being alone. It appeared as the significant predictor of GSI scores at 1, 6, and 12 months postcrime and accounted for 10-19% of the variance. Changing habits and patterns was the best predictor of GSI at 18 months.

The best predictor of self-esteem at one month postassault was whether the victim moved because of the

assault. It was inversely related such that moving was associated with poorer self-esteem. None of the response items was associated with TSCS scores at 6 or 18 months but avoidance of being alone was negatively related to self-esteem at 12 months postcrime.

Fear, as measured by the MFS, was best predicted at one month postcrime by a set of two measures, changing habits and patterns and moving because of the crime. Changing habits and patterns also emerged as the best predictors at 12 and 18 months postcrime and accounted for 24% and 18% of the variance at those sessions. At 6 months increasing the use of safety measures was associated with more fear (R^2 =.15).

IESTOT was predicted best at one month postcrime by two items: moving because of the crime and an increase in safety measures. Together they accounted for 23% of the variance. Change in habits accounted for 22% of the variance at the six month session and was positively related to experiencing symptoms of PTSD. Changing or losing a job predicted higher IES scores at 12 months postcrime, while avoiding being alone was the best predictor at 18 months (R^2 =.30).

Conclusions. Postcrime behavioral responses of male robbery victims are quite indicative of the level of distress they are experiencing. At one month postcrime moving because of the crime predicts the victims' level of distress on three of the four major summary outcome variables used in this project. Avoidance of being alone is particularly associated with high levels of distress for a year after the crime, as measured by the GSI, while changes in habits and patterns (different types of avoidance) predict greater levels of fear.

L. Postcrime Psychological Treatment.

There was two items which asked whether the victim had received postcrime medication for emotional problems or whether they had received any other kind of treatment since the crime. These were summed and entered into a regression equation to see if postcrime treatment was related to symptoms. Tables 51-54 display the findings from these analyses.

1. ANOVAs.

a. Rape versus robbery victims. There were significant differences in the number of rape and robbery victims who received treatment after the crime. Rape victims were significantly more likely to report they had received some type of counseling or medication after the crime at 1 month, 6 months, and 18 months postcrime. There were no significant differences reported at 3 or 12 months postcrime.

Examination of percentages reveals that at the one month session 22% of rape victims had received some kind of medication for emotional problems since the crime and 29% received some other type of treatment. At the same time period, 13% of the female robbery victims received medication and 7.7% received some other type of treatment. At the 18 month session, 15% of the remaining rape victims reported having received medication and 40% had received some other type of treatment. Twelve percent of the female robbery victims reported having received medication and 12% said they had received another form of treatment.

b. Male versus female robbery victims. There were no differences in the number of women or men who reported receiving treatment at the first assessment session. At 3, 6, and 12 months more women than men reported that they had received treatment. There were no differences at the 18-month session.

2. Regression analyses.

a. Female rape victims. There was no relationship between treatment and level of symptoms at 1, 12, or 18 months postcrime on any of the measures. At 6 months there was a significant relationship between receiving treatment and severity of symptomatology on three of the four measures. Treatment was not related to MFS scores. This variable accounted for 9-13% of the variance. The relationship was such that those rape victims who had received treatment by six months postcrime, were those who were reporting significantly more symptomatology and lower self-esteem.

The implications of these findings are that, for the most part, receiving some type of psychological/psychiatric treatment is not related to level of symptomatology. The

only exception was at six months postcrime when receiving treatment was associated with more psychological problems and lower self-esteem.

b. Female robbery victims. Receiving treatment was significantly related to the severity of problems on all four scales at 1 and 6 months postcrime but not 12 months. At 18 months postcrime receiving treatment was related to GSI and MFS scores but not TSCS or IES. Perhaps because receiving treatment is more unusual for robbery victims than rape victims it is more predictive of the level of distress robbery victims are experiencing.

c. Male robbery victims. As with female robbery victims, male robbery victims' symptom scores and self-esteem are predicted by their seeking treatment. The level of problems on three of the four measures were predicted by treatment at session one. Receiving treatment was indicative of more severe symptoms and poorer self-esteem. Only MFS scores were not related to treatment. This variable did not predict any of the four symptom scores at 6 months nor three of the four measures at 12 months postcrime. Higher IES scores at 12 months were related to receiving treatment postcrime. At 18 months only one of the scales was predicted by this variable. Receiving treatment was related to poorer self-esteem at 18 months.

Conclusions. The pattern of findings that emerged for all three groups was a small but significant relationship between severity of symptoms and receiving treatment within the first six months after the crime. Interestingly, the rape victim group had significant findings at only the six month session. The greater levels of distress are more frequently associated with treatment seeking. It should be noted that questions asked of participants did not assess the length, type, or quality of treatment received. However, if treatment had been successful, treatment would be asssociated with lower symptomatology, at least at the later sessions. Such was not the case. There is no evidence that the treatment that victims received was effective in reducing distress.

L. Criminal Justice System Participation.

1. Descriptive analyses.

Table 55 lists the frequencies and percentages of participants' participation in the criminal justice system

across the five assessment sessions. At the one month session (N=274), 34% of the participants (n=93) reported that a suspect had been apprehended in their case. As reported earlier, 70% of the victims in this sample felt the police were helpful and understanding. By that time, 12% (n=34) had been to a preliminary hearing or Grand Jury and 10% (n=27) of the participants reported that the defendants had been held over for trial. Of those cases in which a suspect was apprehended, 74% of the participants felt that the treatment they received by criminal justice personnel was positive and supportive. Eleven percent said they were treated in a neutral or matter-of-fact manner, and 15% reported negative treatment during the legal process. Regarding their reactions, 64% said they were glad they went through the process, 3% regretted it and 32% had mixed feelings.

At the six month session (N=195), 34% (n= 66) of the participants remaining in the project reported that a suspect had been apprehended, 14% (n=27) said they had testified in a preliminary hearing or Grand Jury, and 16% (n=32) responded that the defendant had been held over for trial. At that time 4% (n=7), had testified in the trial. There were five convictions, one acquittal, and two cases had been convicted of a lesser offense. Eleven of the participants (5.6%) reported that their cases had been dropped and 18% (n=35) didn't know what had happened to their cases. Regarding their treatment during the legal process, 68% said it was positive and supportive, 16% reported it to be neutral, and 16% said it was negative. Seventy-eight percent were glad they went through the process, 2% had regrets and 20% had mixed feelings.

By 12 months postcrime, 12% (n=11) of the remaining sample (N=94) had testified in a trial and 14% (n=13) said that their cases ended in a conviction. Sixteen percent (n=15) did not know what had happened with their case. Of the 31 people participating in the criminal justice system, 71% felt that their treatment was positive and supportive and 74% were glad they went through it. Of 106 people assessed at the 18 month session, 14 (13%) had testified in a trial and the majority felt they were well treated and pleased they had participated. Unfortunately, the sample sizes were too small to analyze satisfaction by the outcome of the case.

2. Work adjustment, social support or treatment during participation in the criminal justice system.

It is possible that prolonged involvement with the criminal justice system could interfere with one's work role. It is also possible that social support could wane over the extended period of time the criminal justice system entails. In order to examine these effects on those participating in the criminal justice system two groups were compared.

Because of the small sample sizes of people completing the criminal justice system process, only limited analyses could be conducted. However, it was possible to compare the work adjustment, social support, psychological treatment and psychological functioning of those who completed the process with a group of participants whose cases never had a suspect apprehended and so never started the process. Twenty-four participants completed their participation in the system by 12 or 18 months post-crime. These participants formed the CJS group. From the pool of participants whose crimes never resulted in the apprehension of a suspect, a comparison group was drawn.

The comparison group was matched for gender, type of crime, and session (12 or 18). Beyond the initial matching, 24 participants were then randomly drawn to comprise the comparison group. In each group there were 12 people from the 12 month session and 12 from the 18 month session. Each group had six rape victims and 18 robbery victims, and each group had 16 women and 8 men.

First the groups were compared at the point at which they had completed the criminal justice system. The MANOVA was not significant. Next, the two groups were compared at earlier points in the process, one, three, and six months postcrime. It was found that there were no differences in social support between those who were involved in the criminal justice system and those who were not at any of the earlier postcrime periods. Likewise, there were no differences in work adjustment between the two groups at any of the four postcrime periods.

Originally, it had been speculated that participants in the criminal justice system might fare better because they might have greater access to counseling. An ANOVA was conducted on the treatment variable in order to determine if

the CJS was more likely to receive treatment than the comparison group. The analyses were nonsignificant, indicating that the two groups were equally likely to have received counseling.

3. Effects of participation on recovery.

In order to determine whether participating in the criminal justice system effects recovery from the crime the following analyses were conducted. The first analyses were 4 ANOVAs using the four predetermined dependent variables (GSI, TSCSTOT, MFSTOT, IESTOT) at the end point in the process, 12 or 18 months. All were nonsignificant.

The second analyses were conducted to determine if there were differences between these two groups at earlier points in the process. The CJS and comparison groups were analyzed via ANOVAs at one, three, and six months post-crime. Eleven of the 12 ANOVAs were nonsignificant. At the six month session (n=21 in each group), the CJS group reported significantly higher self-esteem than the comparison group $F(1, 40)= 4.22$, $p< .05$. One significant finding out of twelve could be a spurious finding. However, it is very similar to the finding of Cluss et al (1983).

Conclusions. Overall, it must be concluded that there are no differences in work adjustment, social support, receiving treatment or psychological recovery between people who participated in the criminal justice system and those who did not. Apparently, participating in the criminal justice system has no particular effect on these variables either for good or ill.

V. Implications

It has been widely acknowledged that rape victims suffer from anxiety, particularly post-traumatic stress disorder, and depression for months or even years after the crime. There has been an assumption, and some limited evidence, that rape is more severe, in terms of psychological aftermath, than other single-incident crimes. Implicit in this assumption is the belief that it may be the sexual victimization that accounts for the severity of the crime. This study confirmed that women who were raped have more serious and longlasting reactions than women who were involved in another potentially life-threatening felony, robbery. However, it should be noted that both groups experienced a significant degree of distress following victimization, which improved between one and three months, and then improved more gradually between three and 18 months.

It had been the original hypothesis of the study that, according to cognitive-behavioral theory, rape and robbery victims would experience similar fear reactions because both crimes were similarly life-threatening and would elicit strong fear reactions. However, it was found that the crimes were not similar in some very important ways. Rape victims were restrained and threatened more than robbery victims and their crimes lasted longer. Probably more important, rape victims resisted more, were more anxious, and had greater perceptions of imminent death or injury. Their heightened anxiety would facilitate classically conditioned fear reactions. As confimation of this, when variables concerning the assault (e.g., extent of restraint, threats, and crime duration) and within-assault victim reactions (e.g., amount of resistance, anxiety, and perceptions of imminent danger) were eliminated, it was found that there were then very few differences between the reactions of robbery and rape victims.

These findings give credence to the hypothesis of this study that the perceived life-threatening nature of the crime contributes to the extent of reactions. Victim advocates and therapists may need to move beyond considering the type of crime that the victim was subjected to (i.e. rape) or the extent of injuries as the most important indicators as to whether services are offered. More important would be to assess the victims' perception of the crime, particularly how life-threatening they perceived the

crime and the extent of their physical arousal and anxiety during the event.

As further support of the cognitive-behavioral theory of victim reactions, it was found that postcrime behavioral avoidance was strongly associated with more severe victim reactions. This study found that changes in life style may have been intended as coping techniques by the victims but continued to be associated with greater symptomatology across the 18 months of the study. Such avoidance is one of the hallmarks of PTSD and probably serves to maintain conditioned fear reactions.

Another purpose of the present study was to compare the reactions of male and female robbery victims. It was hypothesized that women would have more severe and longlasting reactions to having been robbed than men. This, in fact, was not entirely the case. Women did have greater depression and PTSD symptoms at one month postassault. They also scored higher on the MFS, the fear scale, on which there were probably preexisting sex differences. However, there were no differences on any of the other symptom scales or self-esteem. Attempts to discover the reason for the initial sex differences were not fruitful.

There were no differences in within-assault victim reactions that would explain these findings. Although female robbery victims experienced greater anxiety during the crime, eliminating the effect of this anxiety did not change the initial sex differences. Male robbery victims were subjected to greater force (more perpetrators, presence of weapons, threats) than female robbery victims. Therefore, differences in the assault would not explain the sex differences either. Perhaps preexisting sex differences in predispositions toward anxiety or depression might explain the initial differences in reaction to the crime. Future research should address this question.

Longitudinal analyses indicated that both men and women experienced marked distress on several of the fear-related measures which improved significantly by three months postcrime. As a group, robbery victims experienced no more than mild depression and no problems with self-esteem. Examination of participants who were assessed only once at 12 or 18 months indicated that the improvement was not due to the effect of repeated assessment. Single and repeatedly assessed robbery victims reported similar levels of symptomatology.

It had been speculated that men might experience more anger during the crime and therefore, classical conditioning would be supressed. In fact, at most sessions there were no differences in anger. However, at six months postcrime, the sample of women reported experiencing more within-crime anger than men. The regression analyses indicated the greater the anger during the assault, the greater the symptoms following the crime. Therefore, it appears that anger during the assault serves the same function as within-crime anxiety. Any kind of heightened arousal facilitates conditioned reactions and avoidance following the event.

With regard to sex differences, it must be remembered that there were very few differences in reactions overall. Male robbery victims experience significant distress and fear for several months following the crime. Because men are less likely to seek out counseling, it will be necessary for victim advocates and criminal justice system personnel to realize that male victims are likely to be experiencing more distress than they are admitting. New creative ways of educating male victims to typicial victim reactions and opening them to the possibility of counseling should be explored.

The history of the victim should not be ignored. Both prior victimization and a history of prior treatment for psychological disorders or depression and suicide attempts are associated with more severe reactions and difficulty recovering from crime. Assessment of the victim's history should be a routine part of counseling for victimization.

Social support, contrary to hypothesis did not play a major role in the reactions of rape victims but was associated with the reactions of robbery victims. At three of the four sessions there were no differences in social support between rape and robbery victims. The covariance analyses indicated that social support did not account for much of the differences in reaction between the two groups, and regression analyses within the rape group indicated that social support was not an important predictor of the reactions of rape victims.

However, social support did appear to be more influential with robbery victims. Greater perceived social support and general network size were associated with better psychological functioning while talking more about the event was associated with more symptomatology. These findings

appear to indicate that general social support and the initial and current reactions about the crime by people in robbery victims' lives are more important than the extent to which the victim actually talks about the event with others. Talking more about the event was associated with greater symptomatology, probably indicating that those with more severe reactions had a greater need to talk with others about the event than those with milder reactions.

It was found in this study that regression analyses did not identify many robust predictor variables. The analyses were rather complicated due to the different crime groups, measures and time periods being examined. Various predictor variables emerged across groups, sessions, and measures, making it difficult at times to draw conclusions about which specific variables affect reactions and recovery. The difficulty with these analyses probably stem from several sources. The measures used to assess the variables of interest (e.g., history of victimization, assault, within-assault) were all developed for this project because standardized measures were not available. The validity and reliability of the measures may not have been optimal. It is possible that reliability of reporting by subjects may have been lower than one would like because of the sensitivity of some of the questions or the need for psychological defensiveness.

It is possible that many of the predictor variables were correlated. Examination of the history of victimization variables indicated that this was the case. When some of the variables are highly correlated it is possible that one variable will emerge as a significant predictor on one measure at one session, while a related variable will emerge as the best predictor at another session. The pattern of responses would then be obscured somewhat.

Because the number of participants who completed all sessions was relatively small for regression analyses, it was necessary to use the cross-sectional sample for these analyses. Consequently, the composition of subjects changed somewhat from session to session. This could have obscured the pattern of results somewhat. Nevertheless, it was possible to conclude that the within-person variables were important variables in determining the reactions of rape victims and all seven types of variables were associated with the level of reactions and recovery experienced by robbery victims.

Future research should determine the exact pattern of influence of these variables and should begin to study the interaction between these variables. In order to accomplish this, more research will be needed to determine the reliability and validity of the measures of these variables. Large sample sizes will be needed to accomplish the kind of statistical analyses that will be required.

This study found that participation in the criminal justice system had little, if any, effect on the participants' psychological functioning or work adjustment following the crime. Victims who completed the criminal justice system process also reported that they received no more or less social support than those who never entered the system because no one was apprehended. These participants also reported that they were no more likely to have received any kind of treatment than the comparison group.

It is possible that participating in the criminal justice system is not as traumatic for most victims as has been previously portrayed. Perhaps the system has become more humane to victims. However it is possible that these findings were unique to this sample. The two comparison groups were those who did not enter the system at all versus those who completed the system; that is, there was a trial or the defendant pleaded guilty. It is possible that the system is most difficult to a different group of people, those who enter the system but are unable to complete it because there is inadequate evidence to proceed, the evidence is contaminated in some fashion or lost, or because the case is dropped after the preliminary hearing or Grand Jury. We did not have a sufficient sample of such cases to include them in analysis.

Finally, in surveying this sample of victims who had reported their crimes to the police, approximately 15% of the sample at any of the sessions did not know what had happened to their case. And although three-quarters of the sample who procceded through the system felt that the treatment they received was positive and supportive, 15% reported negative treatment and either regreted going through the process or had mixed feelings about it. It is encouraging that so many people felt positively about their participation in the legal process, but there is still room for improvement.

References

Atkeson, B.M., Calhoun, K.S., Resick, P.A., and Ellis, E.M. (1982). Victims of rape: Repeated assessment of depressive symptons. Journal of Consulting and Clinical Psychology, 50, 96-102.

Bandura, A. (1969). Principles of Behavior Modification. New York. Holt, Rinehart & Winston Inc.

Beck, A.T., Ward, C.H., Mendelsohn, M., Mock, J., and Erbaugh, J. (1961). An inventory for measuring depression. Archives of General Psychiatry, 41, 561-571.

Becker, J.V. Abel, G.G., and Skinner, L.J. (1979). The impact of a sexual assault on the victim's sexual life. Victimotology: An International Journal, 4, 229-235.

Becker, J.V., Skinner, L.J., Abel, G.G. and Treacy, E.C. (1982). Incidence and types of sexual dysfunctions in rape and incest victims. Journal of Sex and Marital Therapy, 8(1), 65-74.

Burgess, A.W., and Holmstrom, L.L. (1974). Rape trauma syndrome. American Journal of Psychiatry, 131, 981-986.

Burgess, A.W. and Holmstrom, L.L. (1979). Rape: Disclosure to parental family members. Women and Health, 4(3), 255-268.

Calhoun, K.S., Atkeson, B.M., and Resick, P.A. (1982). A longitudinal examination of fear reactions in victims of rape. Journal of Counseling Psychology, 29, 655-661.

Caplan, G. (1964). Principles of Preventive Psychiatry. New York: Basic Books.

Cluss, P.A., Boughton, J., Frank, L.E., Stewart, B.D., and West, D. (1983). The rape victims: Psychological correlates of participation in the legal process. Criminal Justice and Behavior, 10, 342-357.

Derogatis, L.R. and Spencer, P.M. (1983). The brief sympton inventory: Administration, scoring and procedures manual-I. Baltimore: Clinical Psychometric Research.

Ellis, E.M., Atkeson,, B.M., and Calhoun, K.S. (1981). An assessment of long-term reaction to rape. Journal of Abnormal Psychology, 90, 263-266.

Feldman-Summers, S., Gordon, P.E., and Meagher, J.R. (1979). The impact of rape on sexual satisfaction. Journal of Abnormal Psychology, 88, 101-105.

Fitts, W.H. (1965). Manual: Tennessee self-concept scale. Nashville, TN: Counselor Recordings and Tests.

Foa, E.B. and Kozak, M.J. (1986). Emotional processing of fear: Exposure to corrective information. Psychological Bulletin, 99, 20-35.

Herrington, L.H. (1983, Nov. 29-Dec. 2). Current Developments. Speech presented at the National Conference of the Judiciary on the Rights of Victims of Crime, Reno, NV

Herrington, L.H., Bobo, G., Carrington, F., Damos, J.P., Dolan, D.L., Eikenberry, K.O., Miller, R.J., Robertson, P., Samenow, S.E. Statement of the Chairman. President's Task Force on Victims of Crime. Final Report. December, 1982, p. vi-vii.

Holmstrom, L.L., and Burgess, A.W. (1983). The victim of rape (2nd ed.). New Brunswick, NJ: Transaction, Inc.

Kelly, D.P. (1984). Delivering legal services to victims: An evaluation and prescription. The Justice System Journal, 9, 62-86.

Kilpatrick, D.G., Resick, P.A., and Veronen, L.J. (1981). Longitudinal effects of a rape experience. Journal of Social Issues, 37, 105-122.

Kilpatrick, D.G., Veronen, L.J. (1984, February). Treatment of fear and anxiety in victims of rape. Final report of NIMH, grant number MH29602.

Kilpatrick, D.G. and Veronen, L.J. (1982). Treatment of fear and anxiety in victims of rape. National Institute of Mental Health, grant number MH29602.

Kilpatrick, D.G., and Veronen, L.J. (1983, December). The aftermath of rape: A three-year follow-up. Presented at the World Congress on Behavior Therapy, 17th Annual Convention

of the Association for Advancement of Behavior Therapy, Washington, D.C.

Kilpatrick, D.G., Veronen, L.J., and Resick, P.A. (1979). The aftermath of rape: Recent empirical findings. American Journal of Orthopsychiatry, 49, 658-669.

Kilpatrick, D.G., Veronen, L.J., Saunder, B.E., Best, C.L., Amick-McMullen, A. and Paduhovich, J. (1987, March). The psychological impact of crime: A study of randomly surveyed crime victims. Final report for the National Institute of Justice, grant number 84-H-CX-0039.

Lang, P.J. (1977) Imagery in therapy: An information processing analysis of fear. Behavior Therapy, 8, 862-886.

Miller, W.R., Williams, M., and Bernstein, M.H. (1982). The effects of rape on marital and sexual adjustment. American Journal of Family Therapy, 10, 51-58.

Reiss, S., and McNally, R.J. (1985). Expectancy model of fear. In S. Reiss and R. R. Bootzen (Eds.), Theoretical issues in behavior therapy. New York: Academic Press (pp. 107-121).

Resick, P.A., Calhoun, K.S., Atkeson, B.M., and Ellis, E.M. (1981). Social adjustment in victims of sexual assault. Journal of Consulting and Clinical Psychology, 49, 705-712.

Sparks, R.F. (1982). Research on victims of crime: Accomplishments, issues, and new directions. Washington, D. C.: U.S. Government Printing Office (DHHS Publication No. AD M82-1091).

Veronen, L.J., and Kilpatrick, D.G. (1980). Self-reported fears of rape victims: A preliminary investigation. Behavior Modification, 4, 383-396.

Weissmen, M.M., and Paykel, E.S. (1974). The depressed woman: A study of social relationships. Chicago: University of Chicago Press.

Appendices

Appendix A: Tables

Appendix B: Figures

LIST OF TABLES

Table 1. Demographic Characteristics: Female Rape, Female Robbery Victims and Male Robbery Victims

Variables	Female		Male	
	Rape	Robbery	Rape	Robbery
Race	N = 75	N = 90	N = 108	N = 90
Black	60.81%	60.00%	66.67%	60.00%
White	39.19	40.00	33.33	40.00
Age	N = 75	N = 91	N = 108	N = 91
17-20	26.67%	14.29%	13.89%	14.29%
21-25	21.33	19.78	36.11	19.78
26-30	24.00	24.18	17.59	24.18
31-35	14.67	13.19	9.26	13.19
36-40	4.00	13.19	10.19	13.19
over 40	9.33	15.38	12.96	15.38
**Marital Status	N = 75	N = 91	N = 108	N = 91
Single	73.33%	50.55%	69.44%	50.55%
Married	26.67	49.45	30.56	49.45
Highest Degree Earned	N = 72	N = 88	N = 105	N = 88
Elementary School Diploma or less	30.55%	23.86%	13.33%	23.86%
High School Diploma/G.E.D.	26.39	31.82	47.62	31.82
Technical Training Certificate or Associate Degree	26.39	20.46	24.76	20.46
Bachelor's Degree and above	16.67	23.86	14.29	23.86
Years of School	N = 73	N = 90	N = 106	N = 90
Mean	12.90	12.80	12.40	12.80
S.D.	2.69	3.91	3.44	3.91

Table 2. Chi-Squares Analyses of Assault Variables: Female Rape vs. Robbery Victims

Variable		Rape	Robbery	
****Number of Perpetrators				
one		91.53%	57.78%	
two		6.78	32.22	
three		1.69	6.67	
four or more		0.00	3.33	
	N = 59			N = 90
**Number of people present (besides victim and perpetrator(s))				
none		67.24	37.36	
one		17.24	30.77	
more than one		15.52	31.87	
	N = 58			N = 91
****Where the crime occurred				
Victim's home		37.29	14.44	
Home of the perpetrator		10.17	0.00	
Someone else's home		3.39	4.44	
Place of business (store, bank, etc.)		1.69	13.33	
Empty public building		1.69	1.11	
Abandoned building		5.08	0.00	
Car		15.25	4.44	
On the street		5.08	45.56	
In a park		1.69	3.33	
On a parking lot		----	----	
In a parking garage		5.08	10.00	
Other	N = 59	13.56	3.33	N = 90
Acquaintanceship status of perpetrator				
Stranger		72.41	79.12	
Knew slightly		17.24	7.69	
Friend (including relative, date, ex-boyfriend/ex-girlfriend, husband/wife)		6.90	10.99	
Other	N = 58	3.45	2.20	N = 91
****Use of threat by perpetrator				
yes		94.64	56.67	
no	N = 56	5.36	43.33	N = 90
****Display of weapon by perpetrator				
No weapon		33.33	43.33	
Gun		14.81	45.56	
Knife or sharp object		44.44	6.67	
Blunt object		5.56	2.22	
More than one weapon	N = 54	1.85	2.22	N = 90
*Victim blindfolded				
yes		15.52	4.40	
no	N = 58	84.48	95.60	N = 91
Victim gagged				
yes		7.02	4.40	
no	N = 57	92.98	95.60	N = 91
****Victim restrained with arm or leg				
yes		76.86	25.27	
no	N = 58	24.14	74.73	N = 91
**Victim restrained with rope or tape				
yes		20.69	4.40	
no	N = 58	79.31	95.60	N = 91

TABLE 2 (cont'd)

Variable		Rape	Robbery	
Injuries as a result of crime				
yes		53.45%	36.26%	
no	N = 58	46.55	63.74	N = 91
****Length of assault				
Less than 1 hour		54.24	97.75	
More than 1 hour	N = 59	45.76	2.25	N = 89
Length of time before victim told someone else of crime				
Within first 30 minutes		72.88	89.01	
Within first hour		6.78	3.30	
Within first 2-4 hours		6.78	3.30	
Within first 24 hours		8.47	3.30	
Within 1 week		3.39	1.10	
Within 1 month		1.69	0.00	
	N = 59			N = 91
****Attitude of medical people who treated victim				
Victim did not receive medical care		8.00	80.28	
Helpful and understanding		76.00	18.31	
Matter of fact	N = 50	16.00	1.41	N = 71
****Place of medical care				
Victim did not receive medical care		10.91	86.08	
Emergency room only		69.09	8.86	
Private physician's office		3.64	2.53	
Clinic		1.82	0.00	
Hospital ward/room		14.55	2.53	
Other		----	----	
	N = 55			N = 79
Treatment by police				
Helpful and understanding		69.49	71.11	
Matter of fact		10.17	12.22	
Negative		20.32	16.66	
	N = 59			N = 90

Note: * = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 3. Chi-Squares Analyses of Assault Variables: Male vs. Female Robbery Victims

Variable		Male	Female	
****Number of Perpetrators				
one		25.23%	57.78%	
two		48.60	32.22	
three		21.50	6.67	
four or more		4.67	3.33	
	N = 107			N = 90
Number of people present (besides victim and robber(s))				
none		48.15	37.36	
one		19.44	30.77	
more than one	N = 108	32.41	31.87	N = 91
Where the robbery occurred				
Victim's home		2.78	14.44	
Home of the robber		1.85	0.00	
Someone else's home		1.85	4.44	
Place of business (store, bank, etc.)		12.96	13.33	
Empty public building		0.93	1.11	
Abandoned building		----	----	
Car		7.41	4.44	
On the street		53.70	45.56	
In a park		4.63	3.33	
On a parking lot		9.26	10.00	
In a parking garage		0.93	0.00	
Other		3.70	3.33	
	N = 108			N = 90
*Acquaintanceship status of perpetrator				
Stranger		79.44	79.12	
Knew slightly		16.82	7.69	
Friend (including relative, date, ex-boyfriend/ex-girlfriend, husband/wife)		2.80	10.99	
Other		.93	2.20	
	N = 107			N = 91
****Use of threat by robber				
yes		80.37	56.67	
no	N = 107	19.63	43.33	N = 90
Display of weapon by robber				
No weapon		29.52	43.33	
Gun		43.81	45.56	
Knife or sharp object		14.29	6.67	
Blunt object		4.76	2.22	
More than one weapon		7.62	2.22	
	N = 105			N = 90
Victim blindfolded				
yes		1.85	4.40	
no		98.15	95.60	
	N = 108			N = 91
Victim gagged				
yes		7.41	4.40	
no	N = 108	92.59	95.60	N = 91
*Victim restrained with arm or leg				
yes		40.74	25.27	
no	N = 108	59.26	74.73	N = 91
Victim restrained with rope or tape				
yes		1.89	4.40	
no	N = 106	98.11	95.60	N = 91

TABLE 3 (cont'd)

Variable		Sex: Male	Sex: Female	
Injuries as a result of robbery				
yes		45.79	36.26	
no		54.21	63.74	
	N = 107			N = 91
Length of assault				
Less than 1 hour		99.06	97.75	
More than 1 hour	N = 106	0.94	2.25	N = 89
Length of time before victim told someone else of robbery				
Within first 30 minutes		78.70	89.01	
Within first hour		8.33	3.30	
Within first 2-4 hours		5.56	3.30	
Within first 24 hours		4.63	3.30	
Within 1 week		1.83	1.10	
Within 1 month		----	----	
Within 6 months		0.93	0.00	
	N = 108			N = 91
Attitude of medical people who treated victim				
Victim did not receive medical care		71.26	80.28	
Helpful and understanding		27.59	18.31	
Matter of fact		1.15	1.41	
	N = 87			N = 71
Place of medical care				
Victim did not receive medical care		72.00	86.08	
Emergency room only		14.00	8.86	
Private physician's office		2.00	2.53	
Clinic		----	----	
Hospital ward/room		6.00	2.53	
Other		6.00	0.00	
	N = 100			N = 79
Treatment by police				
Helpful and understanding		70.09	71.11	
Matter of fact		14.02	12.22	
More negative		15.87	16.66	
	N = 107			N = 90

Note: * = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 4. Sample Sizes, Means, and Standard Deviations: Cross-sectional Data Set, Female Rape and Female Robbery Victims

Measure	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
BRIEF SYMPTOM INVENTORY															
Global Severity Index (GSI)															
Rape	75	66.68	9.64	59	63.63	11.26	52	62.06	12.06	26	61.04	13.01	20	59.25	13.54
Robbery	91	63.86	11.07	73	56.79	11.70	67	55.82	13.34	25	57.28	12.37	42	52.64	14.10
Somatization															
Rape	75	57.47	12.38	59	53.54	13.62	52	55.33	12.68	26	54.46	14.03	20	51.80	13.75
Robbery	91	55.60	14.47	73	49.25	12.54	67	49.12	12.51	25	47.40	12.56	42	47.00	14.87
Obsessive-Compulsive Symptom															
Rape	75	62.05	11.37	59	60.73	10.39	52	58.90	12.57	26	54.50	13.21	20	57.40	12.96
Robbery	91	59.87	11.87	73	55.44	12.03	67	54.06	12.68	25	58.04	9.15	42	52.81	11.74
Interpersonal Sensitivity															
Rape	75	62.80	11.90	59	62.42	10.58	52	60.85	12.58	26	60.27	11.74	20	59.85	12.97
Robbery	91	60.40	12.87	73	54.85	13.14	67	55.37	14.10	25	58.48	11.72	42	54.17	12.60
Depression															
Rape	75	61.52	10.37	59	57.81	12.19	52	56.52	13.66	26	55.27	12.07	20	54.85	13.78
Robbery	91	56.82	12.88	73	50.92	13.66	67	51.82	13.28	25	52.48	10.52	42	47.26	13.67
Anxiety															
Rape	75	69.39	9.69	59	65.15	11.08	52	62.33	12.21	26	61.08	11.71	20	60.80	11.15
Robbery	91	65.81	10.77	73	57.10	11.75	67	57.63	12.04	25	55.32	14.33	42	52.81	13.23

Table 4. Cont'd

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Hostility															
Rape	75	61.91	11.64	59	58.76	12.22	52	59.81	12.89	26	58.88	12.53	20	56.00	13.31
Robbery	91	61.59	11.20	73	55.71	11.98	67	56.48	11.66	25	57.12	12.83	42	52.07	12.13
Phobic Anxiety															
Rape	75	68.40	7.97	59	65.39	9.62	52	62.75	10.93	26	61.35	12.63	20	57.45	12.65
Robbery	91	63.98	10.33	73	57.95	10.60	67	56.18	11.24	25	55.96	12.45	42	53.83	11.48
Paranoid Ideation															
Rape	75	65.73	8.95	59	64.07	10.14	52	61.79	11.13	26	64.27	11.35	20	60.30	11.41
Robbery	91	64.54	10.00	73	59.16	11.56	67	57.94	13.31	25	61.80	12.21	42	56.60	12.55
Psychoticism															
Rape	75	68.12	12.42	59	68.69	10.78	52	66.92	11.21	26	65.96	11.51	20	66.45	11.79
Robbery	91	65.70	12.86	73	61.38	12.16	67	61.19	12.79	25	61.24	13.52	42	57.67	13.65
BECK DEPRESSION INVENTORY															
Rape	71	14.03	8.09	55	10.49	8.23	51	10.16	8.35	26	9.65	9.35	20	10.05	10.67
Robbery	84	9.68	8.18	69	6.46	7.33	62	5.73	7.53	23	6.57	7.30	41	4.44	5.53
TENNESSEE SELF-CONCEPT SCALE															
Total Self-Esteem															
Rape	33	50.64	10.82	29	49.93	9.52	25	50.00	9.64	14	52.93	12.44	8	48.38	12.64
Robbery	91	49.97	11.82	72	50.21	12.74	67	51.18	12.41	24	49.88	13.57	42	51.64	12.42
Rape-Robbery	40	44.68	10.73	29	43.66	8.87	28	44.36	8.69	13	42.62	9.65	11	42.18	9.08

Table 4. Cont'd

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Physical Self															
Rape	33	50.94	11.53	29	50.55	9.56	25	50.44	12.53	14	53.50	12.02	8	49.63	15.55
Robbery	91	45.42	13.22	72	46.76	13.41	67	46.79	12.53	24	44.88	14.88	42	46.43	12.79
Rape-Robbery	40	41.15	11.88	29	39.28	11.80	28	41.43	11.20	13	44.85	15.56	11	39.82	10.06
Moral-Ethical Self															
Rape	33	53.79	11.87	29	54.07	9.48	25	52.92	10.08	14	55.64	13.43	8	50.63	13.68
Robbery	91	51.11	12.31	72	50.96	13.32	67	52.22	13.24	24	51.96	13.69	42	52.17	12.58
Rape-Robbery	40	48.18	11.85	29	48.31	9.70	28	49.50	9.59	13	44.15	6.71	11	45.64	10.15
Personal Self															
Rape	33	53.42	10.98	29	53.38	11.37	25	52.04	11.01	14	56.50	10.24	8	53.25	12.67
Robbery	91	52.80	11.43	72	53.54	13.30	67	54.28	12.80	24	52.79	13.22	42	56.26	12.27
Rape-Robbery	40	47.38	12.37	29	47.90	10.56	28	49.86	12.26	13	49.62	12.53	11	47.55	6.47
Family Self															
Rape	33	44.70	12.22	29	43.66	9.61	25	46.44	10.44	14	46.71	12.69	8	44.50	9.21
Robbery	91	49.11	13.19	72	48.63	13.94	67	49.67	14.14	24	47.04	15.74	42	51.50	11.84
Rape-Robbery	40	45.20	12.29	29	44.41	10.14	28	42.96	11.18	13	40.92	13.12	11	41.91	12.26
Social Self															
Rape	33	52.30	11.10	29	50.24	10.11	25	51.04	11.43	14	52.07	13.94	8	48.38	9.62
Robbery	91	53.74	11.27	72	53.08	11.88	67	54.39	11.72	24	54.04	11.13	42	52.88	12.49
Rape-Robbery	40	49.18	11.01	29	46.48	8.65	28	46.32	9.46	13	43.08	9.71	11	44.73	10.22

Table 4. Cont'd

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Identity															
Rape	33	49.91	10.86	29	50.24	8.77	25	48.40	10.95	14	49.43	10.55	8	46.25	13.65
Robbery	91	51.40	13.78	72	50.44	12.77	67	52.25	13.03	24	50.04	12.21	42	51.81	12.35
Rape-Robbery	40	45.40	10.73	29	43.97	9.05	28	45.32	8.05	13	44.00	12.07	11	43.82	11.38
Self-Satisfaction															
Rape	33	52.97	12.14	29	51.90	11.35	25	53.32	9.75	14	56.71	13.03	8	52.13	11.87
Robbery	91	51.13	12.76	72	52.57	12.85	67	52.67	13.30	24	50.21	14.17	42	54.17	12.38
Rape-Robbery	40	47.58	12.18	29	47.31	9.80	28	46.93	10.47	13	45.23	10.98	11	45.55	10.07
Behavior															
Rape	33	48.36	10.67	29	46.72	9.27	25	47.32	10.23	14	49.43	11.43	8	46.88	12.11
Robbery	91	47.55	11.19	72	47.28	12.30	67	48.30	12.25	24	48.42	13.21	42	48.00	12.15
Rape-Robbery	40	42.60	9.07	29	40.97	8.82	28	42.54	8.59	13	40.92	6.82	11	39.55	7.23
MODIFIED FEAR SURVEY															
Total MFS															
Rape	70	57.52	7.58	56	54.96	9.01	51	54.52	8.55	27	54.01	9.90	20	52.98	8.85
Robbery	90	57.33	9.30	70	55.27	9.30	66	53.69	9.32	23	54.62	10.79	40	52.55	10.10
Vulnerability															
Rape	73	65.71	12.57	60	62.58	14.22	55	61.70	13.06	27	59.31	14.23	20	57.58	13.10
Robbery	91	62.73	12.76	73	59.05	11.25	67	57.95	12.55	24	57.88	15.63	42	55.36	12.64
Classical															
Rape	73	52.74	8.38	60	52.03	9.24	55	52.44	9.33	27	51.78	8.68	20	51.31	9.13
Robbery	91	54.66	10.12	73	53.31	10.18	67	52.43	9.53	24	53.37	11.16	42	52.37	10.42

Table 4. Cont'd

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Sexual															
Rape	73	60.99	11.72	60	57.28	10.13	55	54.30	10.26	27	53.50	11.70	20	54.21	10.52
Robbery	91	56.11	10.12	73	52.75	8.69	67	51.43	8.27	24	50.93	7.54	42	50.57	8.67
Social Evaluation and Failure															
Rape	73	53.99	7.64	60	52.68	9.36	55	51.74	8.78	27	50.83	10.38	20	50.13	8.63
Robbery	91	54.47	8.91	73	53.20	10.13	67	51.79	9.83	24	53.30	10.21	42	51.54	9.66
Medical															
Rape	73	52.51	7.79	60	50.93	8.04	55	50.93	9.30	27	51.63	9.57	20	50.86	8.16
Robbery	91	53.33	9.85	73	53.14	9.36	67	51.89	9.41	24	52.47	8.57	42	52.08	9.32
Agoraphobia															
Rape	73	48.22	6.19	60	47.21	6.26	55	47.32	6.04	27	46.14	6.93	20	46.04	5.53
Robbery	91	47.90	5.83	73	47.28	6.04	67	46.43	7.12	24	46.96	8.09	42	45.79	7.04
Unexpected Loud Noises															
Rape	73	49.17	6.30	60	49.00	7.20	55	47.79	6.06	27	49.53	8.92	20	51.04	11.62
Female Robbery	91	51.81	10.53	73	49.50	8.42	67	49.43	9.14	24	48.55	10.33	42	49.16	8.92
Weapons															
Rape	73	57.24	9.97	60	54.34	9.87	55	54.65	10.94	27	54.68	10.41	20	52.96	10.14
Robbery	91	58.35	10.16	73	56.28	10.42	67	55.66	10.60	24	52.43	9.85	42	53.52	10.73

Table 4. Cont'd

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
IMPACT OF EVENTS															
Total IES															
Rape	72	40.71	14.29	60	33.53	15.64	53	29.66	17.13	24	27.54	19.56	17	21.65	17.55
Robbery	88	28.81	17.49	71	17.58	16.99	60	9.63	13.61	23	11.30	19.34	39	9.90	15.39
Avoidance															
Rape	72	18.18	8.53	60	13.17	8.88	53	11.83	8.66	24	12.25	10.75	17	8.76	9.20
Robbery	88	14.14	9.22	71	7.14	8.16	60	4.47	6.55	23	4.65	8.96	39	3.59	6.68
Intrusion															
Rape	72	22.53	8.49	60	20.37	9.94	53	17.83	10.48	24	15.29	11.01	17	12.88	10.00
Robbery	88	14.67	9.69	71	10.44	9.88	60	6.17	7.93	23	6.65	10.68	39	6.31	9.31
LIFESTYLE															
Behavioral Responses															
Rape	74	16.64	3.28	59	15.29	3.39	53	15.11	3.58	27	14.41	3.65	20	15.00	4.18
Robbery	91	13.90	3.27	73	13.37	3.41	66	13.45	3.77	23	13.30	3.85	40	12.98	3.38
Symptoms															
Rape	74	17.26	5.18	59	14.92	5.14	53	13.47	4.71	27	13.56	5.32	20	11.90	4.49
Robbery	91	13.70	5.41	73	11.12	4.13	66	10.14	3.72	23	10.39	3.83	40	9.50	2.89
WORK ADJUSTMENT															
Rape	56	1.94	0.75	47	1.55	0.41	40	1.60	0.57	21	1.62	0.47	17	1.75	0.74
Robbery	70	1.75	0.52	55	1.47	0.44	50	1.48	0.56	19	1.42	0.42	36	1.44	0.58

Table 5. Sample Sizes, Means, and Standard Deviations: Cross-sectional Data Set, Male and Female Robbery Victims

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Measure															
BRIEF SYMPTOM INVENTORY															
Global Severity Index															
Female Robbery	91	63.86	11.07	72	56.71	11.76	67	55.82	13.34	25	57.28	12.37	42	52.64	14.10
Male Robbery	107	62.69	12.15	79	58.38	13.05	74	57.72	14.53	41	57.24	15.11	43	56.51	14.70
Somatization															
Female Robbery	91	55.60	14.47	72	49.10	12.56	67	49.12	12.51	25	47.40	12.56	42	47.00	14.87
Male Robbery	107	53.34	13.86	79	51.44	13.21	74	51.88	14.52	41	50.90	13.58	43	49.88	13.24
Obsessive-Compulsive															
Female Robbery	91	59.87	11.87	72	55.35	12.08	67	54.06	12.68	25	58.04	9.15	42	52.81	11.74
Male Robbery	107	57.37	12.26	79	54.15	12.59	74	54.39	12.63	41	54.46	13.26	43	54.47	12.31
Interpersonal Sensitivity															
Female Robbery	91	60.40	12.87	72	54.86	13.24	67	55.37	14.10	25	58.48	11.72	42	54.17	12.60
Male Robbery	107	59.43	13.36	79	56.76	12.86	74	56.74	14.08	41	53.56	14.15	43	55.95	14.89
Depression															
Female Robbery	91	56.82	12.88	72	50.75	13.68	67	51.82	13.28	25	52.48	10.52	42	47.26	13.67
Male Robbery	107	57.95	14.20	79	54.59	13.73	74	54.15	14.26	41	54.29	15.13	43	54.63	14.82
Anxiety															
Female Robbery	91	65.81	10.77	72	56.92	11.73	67	57.63	12.04	25	55.32	14.33	42	52.81	13.23
Male Robbery	107	63.91	13.62	79	58.95	14.00	74	57.47	14.11	41	55.73	15.02	43	55.88	15.16

Table 5. Cont'd

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Hostility															
Female Robbery	91	61.59	11.20	72	55.75	12.06	67	56.48	11.66	25	57.12	12.83	42	52.07	12.13
Male Robbery	107	59.06	10.54	79	55.01	10.78	74	55.68	11.55	41	54.58	12.06	43	52.84	11.18
Phobic Anxiety															
Female Robbery	91	63.98	10.33	72	57.89	10.66	67	56.18	11.24	25	55.96	12.45	42	53.83	11.48
Male Robbery	107	62.84	11.64	79	59.95	11.77	74	59.47	11.82	41	58.02	12.17	43	58.23	11.83
Paranoid Ideation															
Female Robbery	91	64.54	10.00	72	59.07	11.61	67	57.94	13.31	25	61.80	12.21	42	56.60	12.55
Male Robbery	107	62.09	11.74	79	59.59	10.95	74	59.08	12.16	41	59.68	12.68	43	58.26	13.30
Psychoticism															
Female Robbery	91	65.70	12.86	72	61.63	12.07	67	61.19	12.79	25	61.24	13.52	42	57.67	13.65
Male Robbery	107	62.66	13.09	79	60.78	13.06	74	60.20	13.16	41	59.27	13.02	43	60.21	13.31
BECK DEPRESSION INVENTORY															
Female Robbery	84	9.68	8.18	68	6.40	7.37	62	5.73	7.53	23	6.57	7.30	41	4.44	5.53
Male Robbery	97	7.36	5.99	75	5.99	6.25	69	5.20	5.64	38	5.05	7.14	42	4.10	4.94
TENNESSEE SELF-CONCEPT SCALE															
Total Self-Esteem															
Female Robbery	91	49.97	11.82	71	50.18	12.83	67	51.18	12.41	24	49.88	13.57	42	51.64	12.42
Male Robbery	105	50.84	11.56	80	50.49	12.50	73	50.74	12.94	41	52.63	11.98	43	52.14	12.02

Table 5. Cont'd

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Physical Self															
Female Robbery	91	45.42	13.22	71	46.82	13.50	67	46.79	12.53	24	44.88	14.88	42	46.43	12.79
Male Robbery	105	51.44	13.45	80	51.00	13.81	73	51.36	14.67	41	52.71	12.84	43	51.88	14.02
Moral-Ethical Self															
Female Robbery	91	51.11	12.31	71	50.94	13.41	67	52.22	13.24	24	51.96	13.69	42	52.17	12.58
Male Robbery	105	49.15	11.88	80	48.44	12.34	73	49.90	12.26	41	51.71	11.68	43	51.09	10.11
Personal Self															
Female Robbery	91	52.80	11.43	71	53.39	13.33	67	54.28	12.80	24	52.79	13.22	42	56.26	12.27
Male Robbery	105	54.91	12.47	80	55.49	12.64	73	55.19	14.02	41	58.59	12.07	43	58.21	12.46
Family Self															
Female Robbery	91	49.11	13.19	71	48.49	13.99	67	49.67	14.14	24	47.04	15.74	42	51.50	11.84
Male Robbery	105	47.36	12.17	80	47.49	12.22	73	47.55	12.77	41	47.95	13.34	43	48.02	11.93
Social Self															
Female Robbery	91	53.74	11.27	71	53.17	11.94	67	54.39	11.72	24	54.04	11.13	42	52.88	12.49
Male Robbery	105	53.04	10.05	80	52.20	12.43	73	52.15	12.18	41	53.54	11.16	43	53.23	12.89
Identity															
Female Robbery	91	51.40	13.78	71	50.49	12.86	67	52.25	13.03	24	50.04	12.21	42	51.81	12.35
Male Robbery	105	52.25	12.26	80	50.69	12.24	73	50.37	13.13	41	52.27	12.13	43	52.44	13.53
Self-Satisfaction															
Female Robbery	91	51.13	12.76	71	52.48	12.91	67	52.67	13.30	24	50.21	14.17	42	54.17	12.38
Male Robbery	105	50.48	10.87	80	52.26	12.09	73	52.78	13.38	41	53.98	10.58	43	53.12	10.18

Table 5. Cont'd

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Behavior															
Female Robbery	91	47.55	11.19	71	47.24	12.39	67	48.30	12.25	24	48.42	13.21	42	48.00	12.15
Male Robbery	105	50.02	12.20	80	48.25	12.66	73	48.94	12.32	41	50.71	12.46	43	50.58	12.81
MODIFIED FEAR SURVEY															
Total MFS															
Female Robbery	90	57.33	9.30	70	55.27	9.30	66	53.69	9.32	23	54.62	10.79	40	52.55	10.10
Male Robbery	104	50.12	6.53	80	47.98	7.39	72	47.56	7.20	40	46.70	6.50	41	47.89	8.22
Vulnerability															
Female Robbery	91	62.73	12.76	72	59.01	11.32	67	57.95	12.55	24	57.88	15.63	42	55.36	12.64
Male Robbery	107	50.08	7.77	81	48.27	7.87	74	47.76	7.77	41	46.65	6.76	43	48.48	9.46
Classical															
Female Robbery	91	54.66	10.12	72	53.49	10.13	67	52.43	9.53	24	53.37	11.16	42	52.37	10.42
Male Robbery	107	46.95	6.78	81	45.33	6.98	74	45.10	6.69	41	44.00	6.32	43	44.15	6.94
Sexual															
Female Robbery	91	56.11	10.12	72	52.85	8.71	67	51.43	8.27	24	50.93	7.54	42	50.57	8.67
Male Robbery	107	52.22	8.07	81	50.26	7.21	74	50.29	7.71	41	48.82	7.42	43	48.78	6.87
Social Evaluation and Failure															
Female Robbery	91	54.47	8.91	72	53.27	10.18	67	51.79	9.83	24	53.30	10.21	42	51.54	9.66
Male Robbery	107	53.15	8.44	81	51.46	9.92	74	50.31	8.13	41	50.05	6.90	43	51.18	8.82

Table 5. Cont'd

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Medical															
Female Robbery	91	53.33	9.85	72	53.25	9.38	67	51.89	9.41	24	52.47	8.57	42	52.08	9.32
Male Robbery	107	49.31	7.29	81	47.17	7.12	74	48.23	6.68	41	47.72	6.90	43	47.70	7.29
Agoraphobia															
Female Robbery	91	47.90	5.83	72	47.29	6.08	67	46.43	7.12	24	46.96	8.09	42	45.79	7.04
Male Robbery	107	46.65	5.18	81	45.42	4.52	74	45.45	4.26	41	44.48	4.31	43	45.22	4.74
Unexpected Loud Noises															
Female Robbery	91	51.81	10.53	72	49.48	8.48	67	49.43	9.14	24	48.55	10.33	42	49.16	8.92
Male Robbery	107	49.80	8.50	81	48.56	6.40	74	47.96	5.90	41	47.03	4.36	43	49.50	10.93
Weapons															
Female Robbery	91	58.35	10.16	72	56.33	10.49	67	55.66	10.60	24	52.43	9.85	42	53.52	10.73
Male Robbery	107	50.92	10.22	81	48.29	10.70	74	46.56	9.01	41	48.19	10.88	43	48.53	10.18
IMPACT OF EVENTS															
Total IES															
Female Robbery	88	28.81	17.49	71	17.58	16.99	60	9.63	13.61	23	11.30	19.34	39	9.90	15.39
Male Robbery	108	20.92	16.57	80	12.89	14.54	71	11.55	14.47	40	9.05	12.52	43	9.05	13.22
Avoidance															
Female Robbery	88	14.14	9.22	71	7.14	8.16	60	4.47	6.55	23	4.65	8.96	39	3.59	6.68
Male Robbery	108	8.93	8.21	80	6.00	7.43	71	4.53	6.77	40	3.53	5.21	43	3.67	5.72

Table 5. Cont'd

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Intrusion															
Female Robbery	88	14.67	9.69	71	10.44	9.88	60	5.17	7.93	23	6.65	10.68	39	6.31	9.31
Male Robbery	108	11.99	10.07	80	6.89	8.38	71	7.01	8.51	40	5.53	8.11	43	5.37	8.15
LIFESTYLE															
Behavioral responses															
Female Robbery	91	13.90	3.27	72	13.33	3.41	66	13.45	3.77	23	13.30	3.85	40	12.98	3.38
Male Robbery	107	12.66	3.20	80	12.01	3.32	71	11.41	2.89	41	12.05	2.88	41	11.95	2.65
Symptoms															
Female Robbery	91	13.70	5.41	72	11.11	4.15	66	10.14	3.72	23	10.39	3.83	40	9.50	2.89
Male Robbery	107	10.98	4.23	80	10.01	4.03	71	9.39	3.19	41	9.44	4.11	41	8.98	2.52
WORK ADJUSTMENT															
Female Robbery	70	1.75	0.52	54	1.45	0.41	50	1.48	0.56	19	1.42	0.42	36	1.44	0.58
Male Robbery	70	1.59	0.52	59	1.40	0.38	55	1.45	0.42	33	1.36	0.32	36	1.41	0.41

Table 6. Sample Sizes, Means, and Standard Deviations: Longitudinal Data Set, Rape and Robbery Victims

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
MEASURE															
Global Severity Index (GSI): BRIEF SYMPTOM INVENTORY															
Rape	16	64.38	7.38	16	63.81	9.01	16	60.69	13.57	16	59.81	12.11	16	57.69	13.65
Robbery	16	66.31	12.09	16	58.31	12.55	16	56.38	13.61	16	58.00	11.46	16	53.06	14.29
BDI: BECK DEPRESSION INVENTORY															
Rape	12	14.67	7.76	12	10.58	6.91	12	12.00	9.10	12	11.00	10.62	12	8.58	9.36
Robbery	15	13.07	9.04	15	7.07	7.80	15	7.40	8.94	15	6.80	8.09	15	5.27	7.04
Total Self-Esteem (TSCSTOT): TENNESSEE SELF-CONCEPT SCALE															
Rape	7	52.86	15.29	7	49.43	11.73	7	48.57	10.80	7	53.00	11.73	7	50.43	12.12
Robbery	15	48.07	12.27	15	47.20	13.07	15	46.73	13.04	15	47.53	12.68	15	50.73	14.31
Rape Robbery	8	39.13	3.80	8	40.88	7.36	8	41.75	7.17	8	40.00	6.80	8	43.25	10.04
MFSTOT: MODIFIED FEAR SURVEY															
Rape	18	56.82	7.41	18	53.93	9.70	18	53.82	8.29	18	53.89	9.05	18	52.51	9.23
Robbery	15	59.50	10.62	15	56.71	12.14	15	53.96	11.27	15	55.36	13.19	15	52.36	11.53
IESTOT: IMPACT OF EVENTS															
Rape	14	46.07	8.51	14	33.29	18.06	14	32.00	16.00	14	27.64	21.34	14	21.00	16.62
Robbery	14	35.07	19.74	14	24.21	20.85	14	9.86	16.66	14	16.07	23.32	14	10.14	18.68

Table 7. Sample Sizes, Means, and Standard Deviations: Longitudinal Data Set, Male and Female Robbery Victims

	One Month			Three Months			Six Months			Twelve Months			Eighteen Months		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Measure															
Global Severity Index (GSI): BRIEF SYMPTOM INVENTORY															
Female Robbery	16	66.31	12.09	16	58.31	12.55	16	56.38	13.61	16	58.00	11.46	16	53.06	14.29
Male Robbery	25	63.64	9.71	25	56.20	13.02	25	56.56	12.88	25	58.12	12.71	25	55.40	13.30
BDI: BECK DEPRESSION INVENTORY															
Female Robbery	15	13.07	9.04	15	7.07	7.80	15	7.40	8.94	15	6.80	8.09	15	5.27	7.04
Male Robbery	23	5.22	4.73	23	3.78	5.62	23	4.48	6.21	23	4.00	6.06	23	3.22	4.94
Total Self-Esteem (TSCSTOT): TENNESSEE SELF-CONCEPT SCALE															
Female Robbery	15	48.07	12.27	15	47.20	13.07	15	46.73	13.04	15	47.53	12.68	15	50.73	14.31
Male Robbery	24	51.54	10.06	24	52.33	9.32	24	51.83	10.44	24	53.63	9.51	24	52.46	10.67
MFSTOT: MODIFIED FEAR SURVEY															
Female Robbery	15	95.21	21.20	15	89.96	24.41	15	84.30	21.70	15	87.38	24.92	15	81.54	22.52
Male Robbery	25	77.12	11.37	25	71.32	15.64	25	73.60	16.31	25	71.53	12.32	25	72.28	19.03
IESTOT: IMPACT OF EVENTS															
Female Robbery	14	35.07	19.74	14	24.21	20.85	14	9.86	16.66	14	16.07	23.32	14	10.14	18.68
Male Robbery	23	14.65	12.15	23	8.30	10.11	23	8.39	12.35	23	7.91	11.18	23	5.61	10.32

Table 8. Preliminary Cross-sectional MANOVAs and ANOVAs: Female Rape vs. Rape/Robbery Victims

Brief Symptom Index

Global Severity Index ANOVAs

One Month: $F(1, 73) = 1.65$, NS

Three Months: $F(1, 57) = 2.04$, NS

One Month: Hotelling-Lawley Trace = .2123
$F(9, 65) = 1.53$, $p < .20$

Somatization:	$F(1, 73) = 0.05$,	NS
Obsessive Compulsive Symptoms:	$F(1, 73) = 6.88$,	$p < .05$ C > A
Interpersonal Sensitivity:	$F(1, 73) = 0.55$,	NS
Depression:	$F(1, 73) = 1.93$,	NS
Anxiety:	$F(1, 73) = 2.81$,	NS
Hostility:	$F(1, 73) = 0.07$,	NS
Phobia Anxiety:	$F(1, 73) = 0.05$,	NS
Paranoid Ideation:	$F(1, 73) = 0.02$,	NS
Psychoticism:	$F(1, 73) = 0.45$,	NS

Three Months: Hotelling-Lawley Trace = .1189
$F(9, 49) = 0.65$, NS

Beck Depression Inventory

One Month: $F(1, 69) = 0.22$, NS

Three Months: $F(1, 53) = 0.95$, NS

Tennessee Self-Concept Scale

Total Self-Esteem ANOVAs

One Month: $F(1, 71) = 5.54$, $p < .05$ A > C

Three Months: $F(1, 56) = 6.75$, $p < .05$ A > C

TSCS MANOVAs and ANOVAs

One Month: Hotelling-Lawley Trace = .3100
$F(8, 64) = 2.48$, $p < .05$

Physical Self:	$F(1, 71) = 12.61$,	$p < .001$ A > C
Moral Ethical Self:	$F(1, 71) = 4.05$,	$p < .05$ A > C
Personal Self:	$F(1, 71) = 4.78$,	$p < .05$ A > C
Family Self:	$F(1, 71) = 0.03$,	NS
Social Self:	$F(1, 71) = 1.45$,	NS
Identity:	$F(1, 71) = 3.16$,	NS ($p < .08$)
Self-Satisfaction:	$F(1, 71) = 3.56$,	NS ($p < .07$)
Behavior:	$F(1, 71) = 6.22$,	$p < .05$ A > C

Three Months: Hotelling-Lawley Trace = .4929
$F(8, 49) = 3.02$, $p < .01$

Physical Self:	$F(1, 56) = 15.98$,	$p < .001$ A > C
Moral Ethical Self:	$F(1, 56) = 5.22$,	$p < .05$ A > C
Personal Self:	$F(1, 56) = 3.62$,	NS ($p < .07$)
Family Self:	$F(1, 56) = 0.09$,	NS
Social Self:	$F(1, 56) = 2.32$,	NS
Identity:	$F(1, 56) = 7.19$,	$p < .01$ A > C
Self-Satisfaction:	$F(1, 56) = 2.71$,	NS
Behavior:	$F(1, 56) = 5.87$,	$p < .05$ A > C

Modified Fear Survey

Total MFS ANOVAs

One Month: $F(1, 71) = 0.08$, NS

Three Months: $F(1, 71) = 0.10$, NS

MFS MANOVAs and ANOVAs

One Month: Hotelling-Lawley Trace = .1590
$F(8, 64) = 1.27$, NS

Three Months: Hotelling-Lawley Trace = .0267
$F(8, 51) = 0.17$, NS

Impact of Event Scale

One Month: Hotelling-Lawley Trace = .0206
$F(2, 67) = 0.69$, NS

Three Months: Hotelling-Lawley Trace = .0329
$F(2, 55) = 0.91$, NS

Table 8. Cont'd

Lifestyle

One Month:	Hotelling-Lawley Trace = .0242 F(2, 71) = 0.86, NS
Three Months:	Hotelling-Lawley Trace = .0439 F(2, 56) = 1.23, NS

Work Adjustment

One Month:	F(1, 54) = 0.00, NS
Three Months:	F(1, 45) = 2.26, NS

Note: A - Rape
C - Rape/robbery

Table 9. Cross-sectional MANOVAs and ANOVAs: Female Rape vs. Female Robbery Victims

Brief Symptom Inventory

Global Severity Index ANOVAs

One Month:	F(1, 164) = 3.00, NS	
Three Months:	F(1, 130) = 11.50, p < .001	A>B
Six Months:	F(1, 117) = 6.96, p < .01	A>B
Twelve Months:	F(1, 50) = 1.59, NS	
Eighteen Months:	F(1, 60) = 3.05, NS (p < .09)	

BSI MANOVAs AND ANOVAs

One Month:	Hotelling-Lawley Trace = .1101	
	F(9, 156) = 1.91, p < .10	
Somatization:	F(1, 164) = 0.77, NS	
Obsessive-Compulsive Symptoms:	F(1, 164) = 1.45, NS	
Interpersonal Sensitivity:	F(1, 164) = 1.54, NS	
Depression:	F(1, 164) = 6.50, p < .05	A>B
Anxiety:	F(1, 164) = 4.95, p < .05	A>B
Hostility:	F(1, 164) = 0.03, NS	
Phobia Anxiety:	F(1, 164) = 9.22, p < .01	A>B
Paranoid Ideation:	F(1, 164) = 0.65, NS	
Psychoticism:	F(1, 164) = 1.50, NS	
Three Months:	Hotelling-Lawley Trace = .2413	
	F(9, 122) = 3.27, p < .01	
Somatization:	F(1, 130) = 3.54, NS (p < .07)	
Obsessive-Compulsive Symptoms:	F(1, 130) = 7.12, p < .01	A>B
Interpersonal Sensitivity:	F(1, 130) = 12.86, p < .001	A>B
Depression:	F(1, 130) = 9.14, p < .01	A>B
Anxiety:	F(1, 130) = 16.14, p < .0001	A>B
Hostility:	F(1, 130) = 2.08, NS	
Phobic Anxiety:	F(1, 130) = 17.48, p < .0001	A>B
Paranoid Ideation:	F(1, 130) = 6.55, p < .05	A>B
Psychoticism:	F(1, 130) = 13.04, p < .001	A>B
Six Months:	Hotelling-Lawley Trace = .1358	
	F(9, 109) = 1.64, p < .15	
Somatization:	F(1, 117) = 7.12, p < .01	A>B
Obsessive-Compulsive Symptoms:	F(1, 117) = 4.30, p < .05	A>B
Interpersonal Sensitivity:	F(1, 117) = 4.84, p < .05	A>B
Depression:	F(1, 117) = 3.57, NS (p < .07)	
Anxiety:	F(1, 117) = 4.41, p < .05	A>B
Hostility:	F(1, 117) = 2.18, NS	
Phobic Anxiety:	F(1, 117) = 10.25, p < .01	A>B
Paranoid Ideation:	F(1, 117) = 2.82, NS	
Psychoticism:	F(1, 117) = 6.53, p < .05	A>B
Twelve Months:	Hotelling-Lawley Trace = .4580	
	F(9, 42) = 2.14, p < .05	
Somatization:	F(1, 50) = 4.44, p < .05	A>B
Obsessive-Compulsive Symptoms:	F(1, 50) = 0.65, NS	
Interpersonal Sensitivity:	F(1, 50) = 0.47, NS	
Depression:	F(1, 50) = 1.15, NS	
Anxiety:	F(1, 50) = 2.94, NS	
Hostility:	F(1, 50) = 0.49, NS	
Phobic Anxiety:	F(1, 50) = 2.91, NS	
Paranoid Ideation:	F(1, 50) = 0.72, NS	
Psychoticism:	F(1, 50) = 2.28, NS	
Eighteen Months:	Hotelling-Lawley Trace = .2085	
	F(9, 52) = 1.20, NS	

Beck Depression Inventory

One Month:	F(1, 153) = 10.98, p < .01	A>B
Three Months:	F(1, 122) = 8.28, p < .01	A>B
Six Months:	F(1, 110) = 9.24, p < .01	A>B
Twelve Months:	F(1, 48) = 1.42, NS	
Eighteen Months:	F(1, 59) = 7.38, p < .01	A>B

Tennessee Self-Concept Scale

Total Self-Esteem ANOVAs - 3 Group

One Month:	F(2, 161) = 3.54, p < .05	A,B>C
Three Months:	F(2, 127) = 3.69, p < .05	A,B>C
Six Months:	F(2, 117) = 3.78 p < .05	B>C
Twelve Months:	F(2, 49) = 2.89, NS (p < .07)	
Eighteen Months:	F(2, 58) = 2.78, NS (p < .08)	

Table 9 (cont'd)

Tennessee Self-Concept Scale - 2 Group

Total Self-Esteem ANOVAs

One Month:	$F(1, 162) = 2.06$, NS	
Three Months:	$F(1, 128) = 2.85$, NS ($p < .10$)	
Six Months:	$F(1, 118) = 4.07$, $p < .05$	B>A
Twelve Months:	$F(1, 50) = .42$, NS	
Eighteen Months:	$F(1, 59) = 4.29$, $p < .05$	B>A

TSCS MANOVAs and ANOVAs

One Month:	Hotelling-Lawley Trace = .2304 $F(16, 306) = 2.20$, $p < .01$		
	Physical Self:	$F(2, 161) = 5.48$, $p < .01$	A>B,C
	Moral Ethical Self:	$F(2, 161) = 1.96$, NS	
	Personal Self:	$F(2, 161) = 3.56$, $p < .05$	A,B>C
	Family Self:	$F(2, 161) = 2.13$, NS	
	Social Self:	$F(2, 161) = 2.32$, NS	
	Identity:	$F(2, 161) = 3.18$, $p < .05$	B>C
	Self-Satisfaction:	$F(2, 161) = 1.85$, NS	
	Behavior:	$F(2, 161) = 3.66$, $p < .05$	A,B>C
Three Months:	Hotelling-Lawley Trace = .3272 $F(16, 238) = 2.43$, $p < .01$		
	Physical Self:	$F(2, 127) = 6.45$, $p < .01$	A,B>C
	Moral Ethical Self:	$F(2, 127) = 1.73$, NS	
	Personal Self:	$F(2, 127) = 2.33$, NS	
	Family Self:	$F(2, 127) = 2.26$, NS	
	Social Self:	$F(2, 127) = 3.91$, $p < .05$	B>C
	Identity:	$F(2, 127) = 3.68$, $p < .05$	A,B>C
	Self-Satisfaction:	$F(2, 127) = 2.07$, NS	
	Behavior:	$F(2, 127) = 3.56$, $p < .05$	A,B>C
Six Months:	Hotelling-Lawley Trace = .2386 $F(16, 218) = 1.63$, $p < .10$		
	Physical Self:	$F(2, 117) = 3.70$, $p < .05$	A>C
	Moral Ethical Self:	$F(2, 117) = 0.68$, NS	
	Personal Self:	$F(2, 117) = 1.33$, NS	
	Family Self:	$F(2, 117) = 2.80$, NS ($p < .07$)	
	Social Self:	$F(2, 117) = 5.22$, $p < .01$	B>C
	Identity:	$F(2, 117) = 3.75$, $p < .05$	B>C
	Self-Satisfaction:	$F(2, 117) = 2.63$, NS ($p < .08$)	
	Behavior:	$F(2, 117) = 2.70$, NS ($p < .08$)	
Twelve Months:	Hotelling-Lawley Trace = .5960 $F(16, 82) = 1.53$, $p < .15$		
	Physical Self:	$F(2, 49) = 1.88$, NS	
	Moral Ethical Self:	$F(2, 49) = 3.77$, $p < .05$	A,B>C
	Personal Self:	$F(2, 49) = 1.07$, NS	
	Family Self:	$F(2, 49) = 1.09$, NS	
	Social Self:	$F(2, 49) = 4.64$, $p < .05$	A,B>C
	Identity:	$F(2, 49) = 1.17$, NS	
	Self-Satisfaction:	$F(2, 49) = 3.01$, NS ($p < .06$)	
	Behavior:	$F(2, 49) = 2.89$, NS ($p < .07$)	
Eighteen Months:	Hotelling-Lawley Trace = .2698 $F(16, 100) = 0.84$, NS		

Modified Fear Survey

Total MFS ANOVAs

One Month:	$F(1, 158) = 0.02$, NS
Three Months:	$F(1, 124) = 0.04$, NS
Six Months:	$F(1, 115) = 0.25$, NS
Twelve Months:	$F(1, 48) = 0.04$, NS
Eighteen Months:	$F(1, 58) = 0.03$, NS

MFS MANOVAs and ANOVAs

One Month:	Hotelling-Lawley Trace = .1832 $F(8, 155) = 3.55$, $p < .001$		
	Vulnerability:	$F(1, 162) = 2.23$, NS	
	Classical:	$F(1, 162) = 1.70$, NS	
	Sexual:	$F(1, 162) = 8.18$, $p < .01$	A>B
	Social Evaluation and Failure:	$F(1, 162) = 0.13$, NS	
	Medical:	$F(1, 162) = 0.33$, NS	
	Agoraphobia:	$F(1, 162) = 0.11$, NS	
	Unexpected Loud Noises:	$F(1, 162) = 3.57$, NS ($p < .07$)	
	Weapons:	$F(1, 162) = 0.49$, NS	

Table 9 (cont'd)

Three Months: Hotelling-Lawley Trace = .2109
F(8, 124) = 3.27, p < .01

Vulnearability:	F(1, 131) = 2.56, NS	
Classical:	F(1, 131) = 0.57, NS	
Sexual:	F(1, 131) = 7.69, p < .01	A>B
Social Evaluation and Failure:	F(1, 131) = 0.09, NS	
Medical:	F(1, 131) = 2.09, NS	
Agoraphobia:	F(1, 131) = 0.00, NS	
Unexpected Loud Noises:	F(1, 131) = 0.13, NS	
Weapons:	F(1, 131) = 1.20, NS	

Six Months: Hotelling-Lawley Trace = .1103
F(8, 112) = 1.54, p < .15

Vulnerability:	F(1, 119) = 2.38, NS	
Classical:	F(1, 119) = 0.01, NS	
Sexual:	F(1, 119) = 3.63, NS (p < .06)	
Social Evaluation and Failure:	F(1, 119) = 0.00, NS	
Medical:	F(1, 119) = 0.29, NS	
Agoraphobia:	F(1, 119) = 0.27, NS	
Unexpected Loud Noises:	F(1, 119) = 1.04, NS	
Weapons:	F(1, 119) = 0.41, NS	

Twelve Months: Hotelling-Lawley Trace = .1196
F(8, 43) = 0.64, NS

Eighteen Months: Hotelling-Lawley Trace = .1641
F(8, 53) = 1.09, NS

Impact of Event Scale

IESTOT ANOVAs

One Month:	F(1, 158) = 21.55, p < .0001	A>B
Three Months:	F(1, 129) = 30.83, p < .0001	A>B
Six Months:	F(1, 111) = 47.85, p < .0001	A>B
Twelve Months:	F(1, 45) = 8.18, p < .01	A>B
Eighteen Months:	F(1, 54) = 6.34, p < .05	A>B

IES MANOVAs and ANOVAs

One Month: Hotelling-Lawley Trace = .1851
F(2, 157) = 14.53, p < .0001
Intrusion: F(1, 158) = 8.14, p < .01 A>B
Avoidance: F(1, 158) = 29.08, p < .0001 A>B

Three Months: Hotelling-Lawley Trace = .2592
F(2, 128) = 16.59, p < .0001
Intrusion: F(1, 129) = 16.35, p < .0001 A>B
Avoidance: F(1, 129) = 32.67, p < .0001 A>B

Six Months: Hotelling-Lawley Trace = .4803
F(2, 110) = 26.42, p < .0001
Intrusion: F(1, 111) = 26.33, p < .0001 A>B
Avoidance: F(1, 111) = 53.16, p < .0001 A>B

Twelve Months: Hotelling-Lawley Trace = .1820
F(2, 44) = 4.00, p < .05
Intrusion: F(1, 45) = 6.90, p < .05 A>B
Avoidance: F(1, 45) = 7.45, p < .01 A>B

Eighteen Months: Hotelling-Lawley Trace = .1175
F(2, 53) = 3.11, p < .10
Intrusion: F(1, 54) = 5.61, p < .05 A>B
Avoidance: F(1, 54) = 5.65, p < .05 A>B

Lifestyle

One Month: Hotelling-Lawley Trace = .2071
F(2, 162) = 16.77, p < .0001

Behavioral responses:	F(1, 163) = 28.46, p < .0001	A>B
Symptoms:	F(1, 163) = 18.30, p < .0001	A>B

Three Months: Hotelling-Lawley Trace = .1792
F(2, 129) = 11.56, p < .0001

Behavioral responses:	F(1, 130) = 10.38, p < .01	A>B
Symptoms:	F(1, 130) = 22.09, p < .0001	A>B

Table 9 (cont'd)

Six Months:	Hotelling-Lawley Trace = .1703 F(2, 115) = 9.79, p < .0001	
Behavioral responses:	F(1, 116) = 6.67, p < .05	A>B
Symptoms:	F(1, 116) = 19.73, p < .0001	A>B
Twelve Months:	Hotelling-Lawley Trace = .1061 F(2, 48) = 2.55, p < .10	
Behavioral responses:	F(1, 49) = 0.94, NS	
Symptoms:	F(1, 49) = 4.83, p < .05	A>B
Eighteen Months:	Hotelling-Lawley Trace = .1144 F(2, 57) = 3.26, p < .05	
Behavioral responses:	F(1, 58) = 4.08, p < .05	A>B
Symptoms:	F(1, 58) = 6.28, p < .05	A>B

Work Adjustment

One Month:	F(1, 124) = 2.74, NS
Three Months:	F(1, 100) = 0.74, NS
Six Months:	F(1, 88) = 1.05, NS
Twelve Months:	F(1, 38) = 1.95, NS
Eighteen Months:	F(1, 51) = 2.84, NS

Note: A = Rape
B = Robbery

Table 10. Clinical Cut-off Scores for Three Victim Groups on Major Outcome Measures

Global Severity Index: Brief Symptom Inventory

Rape Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 70	26 / 34.7	12 / 20.4	11 / 21.1	9 / 33.3	4 / 20.0
60-69	36 / 48.0	34 / 57.6	24 / 46.2	5 / 18.5	7 / 35.0
50-59	10 / 13.3	8 / 13.6	10 / 19.2	9 / 33.3	4 / 20.0
< 50	3 / 4.0	5 / 8.5	7 / 13.4	4 / 14.8	5 / 25.0

Female Robbery Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 70	28 / 30.8	7 / 9.6	8 / 12.0	4 / 16.0	4 / 9.5
60-69	34 / 37.4	25 / 34.2	21 / 31.3	6 / 24.0	11 / 26.2
50-59	20 / 22.0	21 / 28.8	18 / 26.9	11 / 44.0	9 / 21.4
< 50	9 / 9.9	20 / 27.4	20 / 29.8	4 / 16.0	18 / 42.9

Male Robbery Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 70	33 / 30.8	16 / 20.5	16 / 21.7	8 / 14.6	9 / 20.9
60-69	29 / 27.1	24 / 30.8	21 / 28.4	9 / 22.0	10 / 23.3
50-59	34 / 31.8	22 / 28.2	12 / 16.2	11 / 26.8	9 / 20.9
< 50	11 / 10.2	16 / 20.5	25 / 33.8	13 / 31.7	15 / 34.9

Table 10. Clinical Cut-off Scores for Three Victim Groups on Major Outcome Measures (continued)

Beck Depression Inventory

Rape Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 24	10 / 14.3	6 / 11.1	3 / 6.1	3 / 11.1	2 / 10.5
16-23	18 / 25.7	4 / 7.4	9 / 18.4	5 / 18.5	4 / 21.1
10-15	19 / 27.1	17 / 31.5	8 / 16.3	1 / 3.7	1 / 5.3
0-9	23 / 32.9	27 / 50.0	29 / 59.2	18 / 66.7	12 / 63.2

Female Robbery Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 24	7 / 8.3	3 / 4.3	3 / 4.9	1 / 4.5	1 / 2.6
16-23	11 / 13.1	2 / 2.9	3 / 4.9	2 / 9.1	1 / 2.6
10-15	16 / 19.0	9 / 13.0	7 / 11.5	2 / 9.1	3 / 7.7
0-9	50 / 59.5	79 / 7.0	48 / 78.7	17 / 77.3	34 / 87.2

Male Robbery Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 24	1 / 1.0	2 / 2.8	1 / 1.5	2 / 5.4	- / -
16-23	10 / 10.4	6 / 8.3	2 / 2.9	- / -	2 / 5.0
10-15	20 / 20.8	9 / 12.5	10 / 14.7	6 / 16.2	4 / 10.0
0-9	65 / 67.7	55 / 76.4	55 / 80.9	29 / 78.4	34 / 85.0

Table 10. Clinical Cut-off Scores for Three Victim Groups on Major Outcome Measures (continued)

TSCSTOT: Tennessee Self-Concept Scale

Rape Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 70	3 / 4.1	- / -	- / -	2 / 7.1	- / -
60-69	9 / 12.3	7 / 12.1	6 / 11.3	4 / 14.3	2 / 10.5
50-59	16 / 21.9	17 / 29.3	14 / 26.4	3 / 10.7	3 / 15.8
40-49	22 / 30.1	17 / 29.3	19 / 35.8	9 / 32.1	7 / 36.8
< 40	23 / 31.5	17 / 29.3	14 / 26.4	10 / 35.7	7 / 36.9

Female Robbery Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 70	3 / 3.3	4 / 5.6	6 / 9.0	1 / 4.2	3 / 7.1
60-69	17 / 18.7	13 / 18.1	9 / 13.4	5 / 20.8	9 / 21.4
50-59	30 / 33.0	22 / 30.6	22 / 32.8	7 / 29.2	10 / 23.8
40-49	20 / 22.0	16 / 22.2	19 / 28.4	6 / 25.0	11 / 26.2
< 40	17 / 23.1	17 / 23.7	11 / 16.4	5 / 20.9	9 / 21.4

Male Robbery Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 70	5 / 4.8	3 / 3.8	7 / 9.6	2 / 4.8	3 / 7.0
60-69	22 / 21.0	16 / 20.3	9 / 12.3	11 / 26.8	9 / 20.9
50-59	28 / 26.7	21 / 26.6	22 / 30.1	10 / 24.4	14 / 32.6
40-49	33 / 31.4	21 / 26.6	17 / 23.3	12 / 29.3	8 / 18.6
< 40	17 / 16.2	18 / 22.8	18 / 24.7	6 / 14.6	9 / 20.9

Table 10. Clinical Cut-off Scores for Three Victim Groups on Major Outcome Measures (continued)

MFSTOT: Modified Fear Survey

Rape Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 70	5 / 6.8	4 / 6.7	3 / 5.6	2 / 7.1	1 / 5.0
60-69	19 / 26.0	8 / 13.3	6 / 11.1	5 / 17.9	3 / 15.0
50-59	38 / 52.1	30 / 50.0	30 / 55.6	10 / 35.7	8 / 40.0
< 50	11 / 15.1	17 / 28.4	15 / 27.8	11 / 39.3	8 / 40.0

Female Robbery Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 70	12 / 13.2	4 / 5.5	5 / 7.5	2 / 8.4	3 / 7.2
60-69	16 / 17.6	19 / 26.0	10 / 14.9	3 / 12.5	5 / 11.9
50-59	42 / 46.2	24 / 32.9	26 / 38.8	10 / 41.7	17 / 40.5
< 50	12 / 23.1	26 / 35.6	26 / 38.8	9 / 37.5	17 / 40.5

Male Robbery Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 70	- / -	1 / 1.3	- / -	- / -	1 / 2.3
60-69	9 / 8.4	6 / 7.5	5 / 6.8	1 / 2.4	- / -
50-59	42 / 39.3	20 / 25.0	21 / 28.4	10 / 24.4	13 / 30.2
< 50	56 / 52.4	53 / 66.3	48 / 64.9	30 / 73.2	29 / 67.5

Table 10. Clinical Cut-off Scores for Three Victim Groups on Major Outcome Measures (continued)

IESTOT: Impact of Event Scale

Rape Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 38	49 / 66.2	30 / 50.8	18 / 34.6	9 / 34.6	3 / 15.0
19-37	16 / 21.6	17 / 28.8	21 / 40.4	5 / 19.2	8 / 40.0
0-18	9 / 12.2	12 / 20.3	13 / 25.0	12 / 46.2	9 / 45.0

Female Robbery Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 38	31 / 34.4	9 / 12.3	3 / 4.5	2 / 8.3	4 / 9.8
19-37	29 / 32.2	21 / 28.8	11 / 16.7	2 / 8.3	4 / 9.8
0-18	30 / 33.3	43 / 58.9	52 / 78.8	20 / 83.3	33 / 80.5

Male Robbery Victims

Score	1 month	3 months	6 months	12 months	18 months
≥ 38	18 / 16.8	4 / 5.1	4 / 5.5	2 / 4.9	4 / 9.3
19-37	39 / 36.4	19 / 24.4	14 / 19.2	7 / 17.1	4 / 9.3
0-18	50 / 46.7	55 / 70.5	55 / 75.3	32 / 78.0	35 / 81.4

Table 11. Cross-sectional MANOVAs and ANOVAs: Male vs. Female Robbery Victims

Brief Symptom Inventory

Global Severity Index ANOVAs

One Month:	$F(1, 196) = 0.49$, NS
Three Months:	$F(1, 149) = 0.68$, NS
Six Months:	$F(1, 139) = 0.65$, NS
Twelve Months:	$F(1, 64) = 0.00$, NS
Eighteen Months:	$F(1, 83) = 1.53$, NS

BSI MANOVAs and ANOVAs

One Month:	Hotelling-Lawley Trace = .0738 $F(9, 188) = 1.54$, $p < .15$			
	Somatization	$F(1, 196) =$	1.26,	NS
	Obsessive-Compulsive	$F(1, 196) =$	2.10,	NS
	Interpersonal Sensitivity	$F(1, 196) =$	0.27,	NS
	Depression	$F(1, 196) =$	0.34,	NS
	Anxiety	$F(1, 196) =$	1.16,	NS
	Hostility	$F(1, 196) =$	2.69,	NS
	Phobic Anxiety	$F(1, 196) =$	0.52,	NS
	Paranoid Ideation	$F(1, 196) =$	2.44,	NS
	Psychoticism	$F(1, 196) =$	2.70,	NS
Three Months:	Hotelling-Lawley Trace = .1247 $F(9, 141) = 1.95$, $p < .05$			
	Somatization	$F(1, 149) =$	1.24,	NS
	Obsessive-Compulsive	$F(1, 149) =$	0.35,	NS
	Interpersonal Sensitivity	$F(1, 149) =$	0.80,	NS
	Depression	$F(1, 149) =$	2.96,	NS
	Anxiety	$F(1, 149) =$	0.93,	NS
	Hostility	$F(1, 149) =$	0.16,	NS
	Phobic Anxiety	$F(1, 149) =$	1.26,	NS
	Paranoid Ideation	$F(1, 149) =$	0.08,	NS
	Psychoticism	$F(1, 149) =$	0.17,	NS
Six Months:	Hotelling-Lawley Trace = .1184 $F(9, 131) = 1.72$, $p < .10$			
	Somatization	$F(1, 139) =$	1.45,	NS
	Obsessive-Compulsive	$F(1, 139) =$	0.02,	NS
	Interpersonal Sensitivity	$F(1, 139) =$	0.33,	NS
	Depression	$F(1, 139) =$	1.00,	NS
	Anxiety	$F(1, 139) =$	0.00,	NS
	Hostility	$F(1, 139) =$	0.17,	NS
	Phobic Anxiety	$F(1, 139) =$	2.86,	NS
	Paranoid Ideation	$F(1, 139) =$	0.28,	NS
	Psychoticism	$F(1, 139) =$	0.20,	NS
Twelve Months:	Hotelling-Lawley Trace = .3345 $F(9, 56) = 2.08$, $p < .05$			
	Somatization	$F(1, 64) =$	1.09,	NS
	Obsessive-Compulsive	$F(1, 64) =$	1.41,	NS
	Interpersonal Sensitivity	$F(1, 64) =$	2.13,	NS
	Depression	$F(1, 64) =$	0.28,	NS
	Anxiety	$F(1, 64) =$	0.01,	NS
	Hostility	$F(1, 64) =$	0.65,	NS
	Phobic Anxiety	$F(1, 64) =$	0.44,	NS
	Paranoid Ideation	$F(1, 64) =$	0.45,	NS
	Psychoticism	$F(1, 64) =$	0.35,	NS
Eighteen Months:	Hotelling-Lawley Trace = .1845 $F(9, 75) = 1.54$, $p < .20$			
	Somatization	$F(1, 83) =$	0.89,	NS
	Obsessive-Compulsive	$F(1, 83) =$	0.40,	NS
	Interpersonal Sensitivity	$F(1, 83) =$	0.36,	NS
	Depression	$F(1, 83) =$	5.67,	$p < .05$ M > F
	Anxiety	$F(1, 83) =$	0.99,	NS
	Hostility	$F(1, 83) =$	0.09,	NS
	Phobic Anxiety	$F(1, 83) =$	3.02,	NS
	Paranoid Ideation	$F(1, 83) =$	0.35,	NS
	Psychoticism	$F(1, 83) =$	0.76,	NS

Table 11 (cont'd)

Beck Depression Inventory

One Month:	$F(1, 179) = 4.81$,	$p < .05$	F > M
Three Months:	$F(1, 141) = .13$,	NS	
Six Months:	$F(1, 129) = .20$,	NS	
Twelve Months:	$F(1, 59) = .63$,	NS	
Eighteen Months:	$F(1, 81) = .09$,	NS	

Tennessee Self-Concept Scale

Total Self-Esteem ANOVAs

One Month:	$F(1, 194) = 0.27$,	NS	
Three Months:	$F(1, 149) = 0.02$,	NS	
Six Months:	$F(1, 138) = 0.04$,	NS	
Twelve Months:	$F(1, 63) = 0.73$,	NS	
Eighteen Months:	$F(1, 83) = 0.04$,	NS	

TSCS MANOVAs and ANOVAs

One Month: Hotelling-Lawley Trace = .1582, $F(8, 187) = 3.70$, $p < .001$

Physical Self	$F(1, 194) = 9.92$,	$p < .01$	M > F
Moral-Ethical Self	$F(1, 194) = 1.28$,	NS	
Personal Self	$F(1, 194) = 1.51$,	NS	
Family Self	$F(1, 194) = 0.93$,	NS	
Social Self	$F(1, 194) = 0.21$,	NS	
Identity	$F(1, 194) = 0.21$,	NS	
Self-Satisfaction	$F(1, 194) = 0.15$,	NS	
Behavior	$F(1, 194) = 2.16$,	NS	

Three Months: Hotelling-Lawley Trace = .1035, $F(8, 142) = 1.84$, $p < .10$

Physical Self	$F(1, 149) = 3.53$,	NS	($p < .07$)
Moral-Ethical Self	$F(1, 149) = 1.43$,	NS	
Personal Self	$F(1, 140) = 0.98$,	NS	
Family Self	$F(1, 149) = 0.22$,	NS	
Social Self	$F(1, 149) = 0.24$,	NS	
Identity	$F(1, 149) = 0.01$,	NS	
Self-Satisfaction	$F(1, 149) = 0.01$,	NS	
Behavior	$F(1, 149) = 0.24$,	NS	

Six Months: Hotelling-Lawley Trace = .1516, $F(8, 131) = 2.48$, $p < .05$

Physical Self	$F(1, 138) = 3.89$,	NS	($p < .06$)
Moral-Ethical Self	$F(1, 138) = 1.16$,	NS	
Personal Self	$F(1, 138) = 0.16$,	NS	
Family Self	$F(1, 138) = 0.87$,	NS	
Social Self	$F(1, 138) = 1.22$,	NS	
Identity	$F(1, 138) = 0.72$,	NS	
Self-Satisfaction	$F(1, 138) = 0.00$,	NS	
Behavior	$F(1, 138) = 0.10$,	NS	

Twelve Months: Hotelling-Lawley Trace = .2519, $F(8, 56) = 1.76$, $p < .15$

Physical Self	$F(1, 63) = 5.01$,	$p < .05$	M > F
Moral-Ethical Self	$F(1, 63) = 0.01$,	NS	
Personal Self	$F(1, 63) = 3.25$,	NS	($p < .08$)
Family Self	$F(1, 63) = 0.06$,	NS	
Social Self	$F(1, 63) = 0.03$,	NS	
Identity	$F(1, 63) = 0.51$,	NS	
Self-Satisfaction	$F(1, 63) = 1.49$,	NS	
Behavior	$F(1, 63) = 0.49$,	NS	

Eighteen Months: Hotelling-Lawley Trace = .2088, $F(8, 76) = 1.98$, $p < .10$

Physical Self	$F(1, 83) = 3.51$,	NS	($p < .07$)
Moral-Ethical Self	$F(1, 83) = 0.19$,	NS	
Personal Self	$F(1, 83) = 0.53$,	NS	
Family Self	$F(1, 83) = 1.82$,	NS	
Social Self	$F(1, 83) = 0.02$,	NS	
Identity	$F(1, 83) = 0.05$,	NS	
Self-Satisfaction	$F(1, 83) = 0.18$,	NS	
Behavior	$F(1, 83) = 0.91$,	NS	

Table 11 (cont'd)

Modified Fear Survey

Total MFS ANOVAs

One Month:	$F(1, 192) = 39.80$,	$p < .0001$ F > M
Three Months:	$F(1, 148) = 28.55$,	$p < .0001$ F > M
Six Months:	$F(1, 136) = 18.82$,	$p < .0001$ F > M
Twelve Months:	$F(1, 61) = 13.28$,	$p < .001$ F > M
Eighteen Months:	$F(1, 79) = 5.21$,	$p < .05$ F > M

MFS MANOVAs and ANOVAs

One Month: Hotelling-Lawley Trace = .5429
$F(8, 189) = 12.83$, $p < .0001$

Vulnerability	$F(1, 196) = 73.23$,	$p < .0001$ F > M
Classical	$F(1, 196) = 40.69$,	$p < .0001$ F > M
Sexual	$F(1, 196) = 9.04$,	$p < .01$ F > M
Social	$F(1, 196) = 1.14$,	NS
Medical	$F(1, 196) = 10.84$,	$p < .01$ F > M
Agoraphobia	$F(1, 196) = 2.57$,	NS
Noises	$F(1, 196) = 2.20$,	NS
Weapons	$F(1, 196) = 26.13$,	$p < .0001$ F > M

Three Months: Hotelling-Lawley Trace = .5517
$F(8, 144) = 9.93$, $p < .0001$

Vulnerability	$F(1, 151) = 47.16$,	$p < .0001$ F > M
Classical	$F(1, 151) = 34.22$,	$p < .0001$ F > M
Sexual	$F(1, 151) = 4.04$,	$p < .05$ F > M
Social	$F(1, 151) = 1.24$,	NS
Medical	$F(1, 151) = 20.66$,	$p < .0001$ F > M
Agoraphobia	$F(1, 151) = 4.73$,	$p < .05$ F > M
Noises	$F(1, 151) = 0.58$,	NS
Weapons	$F(1, 151) = 21.95$,	$p < .0001$ F > M

Six Months: Hotelling-Lawley Trace = .5455
$F(8, 132) = 9.00$, $p < .0001$

Vulnerability	$F(1, 139) = 34.30$,	$p < .0001$ F > M
Classical	$F(1, 139) = 28.31$,	$p < .0001$ F > M
Sexual	$F(1, 139) = 0.72$,	NS
Social	$F(1, 139) = 0.95$,	NS
Medical	$F(1, 139) = 7.22$,	$p < .01$ F > M
Agoraphobia	$F(1, 139) = 1.00$,	NS
Noises	$F(1, 139) = 1.31$,	NS
Weapons	$F(1, 139) = 30.33$,	$p < .0001$ F > M

Twelve Months: Hotelling-Lawley Trace = .5744
$F(8, 56) = 4.02$, $p < .001$

Vulnerability	$F(1, 63) = 16.16$,	$p < .001$ F > M
Classical	$F(1, 63) = 18.76$,	$p < .0001$ F > M
Sexual	$F(1, 63) = 1.21$,	NS
Social	$F(1, 63) = 2.35$,	NS
Medical	$F(1, 63) = 5.99$,	$p < .05$ F > M
Agoraphobia	$F(1, 63) = 2.61$,	NS
Noises	$F(1, 63) = 0.68$,	NS
Weapons	$F(1, 63) = 2.46$,	NS

Eighteen Months: Hotelling-Lawley Trace = .4290
$F(8, 76) = 4.08$, $p < .001$

Vulnerability	$F(1, 83) = 8.10$,	$p < .01$ F > M
Classical	$F(1, 83) = 18.37$,	$p < .0001$ F > M
Sexual	$F(1, 83) = 1.12$,	NS
Social	$F(1, 83) = 0.03$,	NS
Medical	$F(1, 83) = 5.85$,	$p < .05$ F > M
Agoraphobia	$F(1, 83) = 0.19$,	NS
Noises	$F(1, 83) = 0.02$,	NS
Weapons	$F(1, 83) = 4.84$,	$p < .05$ F > M

Table 11 (cont'd)

Impact of Event Scale

Total IES ANOVAs

One Month:	$F(1, 194) = 10.46$	$p < .01$ F > M
Three Months:	$F(1, 149) = 3.34$	NS ($p < .07$)
Six Months:	$F(1, 129) = 0.60$	NS
Twelve Months:	$F(1, 61) = 0.32$	NS
Eighteen Months:	$F(1, 80) = 0.07$	NS

IES MANOVAs and ANOVAs

One Month: Hotelling-Lawley Trace = .0981
$F(2, 193) = 9.46$, $p < .0001$

Intrusion = $F(1, 194) = 17.49$, $p < .0001$ F > M
Avoidance = $F(1, 194) = 3.55$, NS ($p < .07$)

Three Months: Hotelling-Lawley Trace = .0489
$F(2, 148) = 3.62$, $p < .05$

Intrusion = $F(1, 149) = .08$, NS
Avoidance = $F(1, 149) = 5.70$, $p < .05$ F > M

Six Months: Hotelling-Lawley Trace = .0301
$F(2, 128) = 1.93$, $p < .15$

Intrusion = $F(1, 129) = .00$, NS
Avoidance = $F(1, 129) = 1.63$, NS

Twelve Months: Hotelling-Lawley Trace = .0068
$F(2, 60) = .20$, NS

Eighteen Months: Hotelling-Lawley Trace = .0117
$F(2, 79) = .46$, NS

Lifestyle

One Month: Hotelling-Lawley Trace = .0880
$F(2, 195) = 8.58$, $p < .001$

Behavioral responses $F(1, 196) = 7.21$, $p < .01$ F > M
Symptoms $F(1, 196) = 15.75$, $p < .0001$ F > M

Three Months: Hotelling-Lawley Trace = .0419
$F(2, 149) = 3.12$, $p < .05$

Behavioral responses $F(1, 150) = 5.84$, $p < .05$ F > M
Symptoms $F(1, 150) = 2.74$, NS

Six Months: Hotelling-Lawley Trace = .0973
$F(2, 134) = 6.52$, $p < .01$

Behavioral responses $F(1, 135) = 12.84$, $p < .001$ F > M
Symptoms $F(1, 135) = 1.58$, NS

Twelve Months: Hotelling-Lawley Trace = .0355
$F(2, 61) = 1.08$, NS

Eighteen Months: Hotelling-Lawley Trace = .0297
$F(2, 78) = 1.16$, NS

Work Adjustment

One Month:	$F(1, 138) = 3.33$,	NS ($p < .08$)
Three Months:	$F(1, 111) = 0.48$,	NS
Six Months:	$F(1, 103) = 0.06$,	NS
Twelve Months:	$F(1, 50) = 0.36$,	NS
Eighteen Months:	$F(1, 70) = 0.04$,	NS

Table 12: Sample Sizes, Means, and Standard Deviations: Single Test Robbery Groups

	12 months			18 months		
MEASURE	N	M	SD	N	M	SD
GLOBAL SEVERITY INDEX (GSI): BRIEF SYMPTOM INVENTORY						
Female Robbery	10	57.40	13.91	13	58.77	11.08
Male Robbery	9	64.00	15.21	6	55.50	11.93
TOTAL SELF ESTEEM (TSCSTOT): TENNESSEE SELF-CONCEPT SCALE						
Female Robbery	10	52.60	8.19	13	50.08	13.85
Male Robbery	9	51.78	12.64	6	50.83	10.52
MFSTOT: MODIFIED FEAR SURVEY						
Female Robbery	10	62.59	6.81	13	54.18	11.22
Male Robbery	9	49.27	4.86	6	48.96	5.39
IESTOT: IMPACT OF EVENT SCALE						
Female Robbery	9	7.22	8.73	13	12.69	13.53
Male Robbery	8	15.00	14.29	5	8.20	17.78

Table 13. Longitudinal ANOVAs: Rape vs. Robbery Victims

Variable	Group		Sessions		Interaction	
	df	F	df	F	df	F
GSI	1, 39	.73	4, 120	6.05***[a]	4, 120	1.01
TSCSTOT[1]						
3 group	2, 41	1.76	4, 108	.98	8, 108	.91
2 group	1, 37	.36	4, 112	1.40	4, 112	.30
MFSTOT	1, 40	.18	4, 124	6.47****[a]	4, 124	.68
IESTOT	1, 35	5.85*[b]	4, 104	15.04****[c]	4, 104	1.11
BDI	1, 34	1.55	4, 100	6.70****[d]	4, 100	.34

Note: 1. The three groups were rape, rape-robbery and robbery. Because sample sizes were small TSCS was also analyzed after collapsing the rape and rape-robbery groups.

* $p < .05$
** $p < .01$
*** $p < .001$
**** $p < .0001$

a. 1 > 3, 6, 12, 18; 3 > 18
b. rape > robbery
c. 1 > 3, 6, 12, 18; 3 > 6, 18
d. 1 > 3, 6, 12, 18

Table 14. Longitudinal ANOVAs: Male vs. Female Robbery Victims

Variable	Group		Sessions		Interaction	
	df	F	df	F	df	F
GSI	1, 48	.02	4, 156	7.93****[a]	4, 156	.49
TSCSTOT	1, 46	1.63	4, 148	1.10	4, 148	1.00
MFSTOT	1, 47	7.22*[b]	4, 152	5.84**[a]	4, 152	2.23
IESTOT	1, 44	5.54*	4, 140	19.41****	4, 140	6.43****[c]
BDI	1, 45	4.10	4, 144	7.42****	4, 144	2.92*[d]

Note: * $p < .05$
** $p < .01$
*** $p < .001$
**** $p < .0001$

a. 1 > 3, 6, 12, 18
b. F > M
c. F : 1 > 3, 6, 12, 18
3 > 6, 18
M : 1 > 3, 6, 12, 18
d. F > M at 1
F : 1 > 3, 6, 12, 18
M : NS

Table 15. Multivariate Analyses of Variance: History of Victimization, Rape vs. Rape-Robbery Victims.

One month:	Hotelling-Lawley Trace = .1781		
	F(7, 63) = 1.60,	p < .20	
ANOVAs			
TOTCHAB:	F(1, 69) = .16,	NS	
CHDSXAB:	F(1, 69) = .48,	NS	
INCEST:	F(1, 69) = 1.38,	NS	
EMABUSE:	F(1, 69) = .10,	NS	
OBSVIOL:	F(1, 69) = .20,	NS	
DOMVIOL:	F(1, 69) = .80,	NS	
PREVIC:	F(1, 69) = 2.35,	NS	
Three months:	Hotelling-Lawley Trace = .0797		
	F(7, 48) = .55,	NS	
Six months:	Hotelling-Lawley Trace = .4683		
	F(7, 41) = 2.74,	p < .05	
ANOVAs			
TOTCHAB:	F(1, 47) = 2.18,	NS	
CHDSXAB:	F(1, 47) = 1.53,	NS	
INCEST:	F(1, 47) = .00,	NS	
EMABUSE:	F(1, 47) = 1.16,	NS	
OBSVIOL:	F(1, 47) = 1.18,	NS	
DOMVIOL:	F(1, 47) = .20,	NS	
PREVIC:	F(1, 47) = 1.93,	NS	
Twelve months:	Hotelling-Lawley Trace = .7275		
	F(7, 18) = 1.87,	p < .15	
ANOVAs			
TOTCHAB:	F(1, 24) = .74,	NS	
CHDSXAB:	F(1, 24) = .72,	NS	
INCEST:	F(1, 24) = .01,	NS	
EMABUSE:	F(1, 24) = .78,	NS	
OBSVIOL:	F(1, 24) = .06,	NS	
DOMVIOL:	F(1, 24) = .07,	NS	
PREVIC:	F(1, 24) = 8.80,	p < .01	C > A
Eighteen months:	Hotelling-Lawley trace = .5749		
	F(7, 14) = 1.15,	NS	

Note: TOTCHAB = Extent of child abuse
CHDSXAB = Childhood sexual abuse (non-incest)
INCEST = Incest
EMABUSE = Childhood emotional abuse
OBSVIOL = Childhood observation of violence
DOMVIOL = Domestic violence
PREVIC = Extent and severity of previous criminal victimization

A = Rape
C = Rape-robbery

Table 16. Multivariate Analyses of Variance: History of Victimization, Rape vs. Robbery Victims.

One month:	Hotelling-Lawley Trace = .1456		
	F(7, 153) = 3.18,	p < .01	
ANOVAs			
TOTCHAB:	F(1, 159) = 1.31,	NS	
CHDSXAB:	F(1, 159) = 2.53,	NS	
INCEST:	F(1, 159) = 2.71,	NS	
EMABUSE:	F(1, 159) = .68,	NS	
OBSVIOL:	F(1, 159) = 5.44,	p < .05	B > A
DOMVIOL:	F(1, 159) = .66,	NS	
PREVIC:	F(1, 159) = 1.78,	NS	
Three months:	Hotelling-Lawley Trace = .1805		
	F(6, 117) = 3.52	p < .01	
ANOVAs			
TOTCHAB:	F(1, 122) = .82,	NS	
CHDSXAB:	F(1, 122) = 2.05,	NS	
INCEST:	F(1, 122) = .82,	NS	
EMABUSE:	F(1, 122) = 1.53,	NS	
OBSVIOL:	F(1, 122) = 1.15,	NS	
DOMVIOL:	F(1, 122) = .82,	NS	
PREVIC:	F(1, 122) = 10.13,	p < .01	A > B
Six months:	Hotelling-Lawley trace = .1127		
	F(7, 107) = 1.72,	p < .15	
ANOVAs			
TOTCHAB:	F(1, 113) = .34,	NS	
CHDSXAB:	F(1, 113) = .35,	NS	
INCEST:	F(1, 113) = .28,	NS	
EMABUSE:	F(1, 113) = .04,	NS	
OBSVIOL:	F(1, 113) = .51,	NS	
DOMVIOL:	F(1, 113) = .03,	NS	
PREVIC:	F(1, 113) = 5.94,	p < .05	A > B
Twelve months:	Hotelling-Lawley Trace = .1923		
	F(7, 51) = 1.40, NS		
Eighteen months:	Hotelling-Lawley Trace = .1563		
	F(7, 66) = 1.47,	p < .20	
ANOVAs			
TOTCHAB:	F(1, 72) = .35,	NS	
CHDSXAB:	F(1, 72) = 1.65,	NS	
INCEST:	F(1, 72) = .02,	NS	
EMABUSE:	F(1, 72) = 1.02,	NS	
OBSVIOL:	F(1, 72) = .97,	NS	
DOMVIOL:	F(1, 72) = .60,	NS	
PREVIC:	F(1, 72) = 2.48,	NS	

Note: TOTCHAB = Extent of child abuse
CHDSXAB = Childhood sexual abuse (non-incest)
INCEST = Incest
EMABUSE = Childhood emotional abuse
OBSVIOL = Childhood observation of violence
DOMVIOL = Domestic violence
PREVIC = Extent and severity of previous criminal victimization

A = Rape
B = Robbery

Table 17. Multivariate Analyses of Variance: History of Victimization, Male vs. Female Robbery Victims.

One month:	Hotelling-Lawley Trace = .0781			
	F(7, 184) = 2.05,	p < .10		
	ANOVAs			
	TOTCHAB:	F(1, 90) = .60,	NS	
	CHDSXAB:	F(1, 90) = 1.31,	NS	
	INCEST:	F(1, 90) = .01,	NS	
	EMABUSE:	F(1, 90) = .38,	NS	
	OBSVIOL:	F(1, 90) = 1.45,	NS	
	DOMVIOL:	F(1, 90) = 7.49,	p < .01	F > M
	PREVIC:	F(1, 90) = .04,	NS	
Three months:	Hotelling-Lawley Trace = .1118			
	F(6, 138) = 2.57,	p < .05		
	ANOVAs			
	TOTCHAB:	F(1, 143) = 1.13,	NS	
	CHDSXAB:	F(1, 143) = .00,	NS	
	INCEST:	F(1, 143) = 1.13,	NS	
	EMABUSE:	F(1, 143) = .03,	NS	
	OBSVIOL:	F(1, 143) = 1.16,	NS	
	DOMVIOL:	F(1, 143) = 1.13,	NS	
	PREVIC:	F(1, 143) = .15,	NS	
Six months:	Hotelling-Lawley Trace = .1862			
	F(7, 128) = 3.41,	p < .01		
	ANOVAs			
	TOTCHAB:	F(1, 134) = 4.12,	p < .05	M > F
	CHDSXAB:	F(1, 134) = 3.75,	NS (p = .055)	M > F
	INCEST:	F(1, 134) = 1.24,	NS	
	EMABUSE:	F(1, 134) = 5.64,	p < .05	M > F
	OBSVIOL:	F(1, 134) = .38,	NS	
	DOMVIOL:	F(1, 134) = 4.96,	p < .05	F > M
	PREVIC:	F(1, 134) = .28,	NS	
Twelve months:	Hotelling-Lawley Trace = .2910			
	F(7, 73) = 3.03,	p < .01		
	ANOVAs			
	TOTCHAB:	F(1, 79) = .05,	NS	
	CHDSXAB:	F(1, 79) = .00,	NS	
	INCEST:	F(1, 79) = .96,	NS	
	EMABUSE:	F(1, 79) = 1.39,	NS	
	OBSVIOL:	F(1, 79) = .86,	NS	
	DOMVIOL:	F(1, 79) = 13.15,	p < .001	F > M
	PREVIC:	F(1, 79) = 1.47,	NS	
Eighteen months:	Hotelling-Lawley Trace = .2629			
	F(7, 92) = 3.46,	p < .01		
	ANOVAs			
	TOTCHAB:	F(1, 98) = .98,	NS	
	CHDSXAB:	F(1, 98) = 5.70,	p < .05	M > F
	INCEST:	F(1, 98) = .12,	NS	
	EMABUSE:	F(1, 98) = .49,	NS	
	OBSVIOL:	F(1, 98) = 2.41,	NS	
	DOMVIOL:	F(1, 98) = 5.90,	p < .05	F > M
	PREVIC:	F(1, 98) = .06,	NS	

Note: TOTCHAB = Extent of child abuse
CHDSXAB = Childhood sexual abuse (non-incest)
INCEST = Incest
EMABUSE = Childhood emotional abuse
OBSVIOL = Childhood observation of violence
DOMVIOL = Domestic violence
PREVIC = Extent and severity of previous criminal victimization

Table 18. Covariance Analyses of History of Victimization: Cross-sectional ANCOVAs of Female Rape vs. Female Robbery Victims

Global Severity Index: Brief Symptom Inventory

Session 1:	$F(1, 163) = 4.85$,	$p < .05$	A > B
Session 3:	$F(1, 129) = 13.02$,	$p < .001$	A > B
Session 6:	$F(1, 116) = 7.63$,	$p < .01$	A > B
Session 12:	$F(1, 49) = 1.58$,	NS	
Session 18:	$F(1, 59) = 2.07$,	NS	

Beck Depression Inventory

Session 1:	$F(1, 152) = 16.88$,	$p < .0001$	A > B
Session 3:	$F(1, 121) = 8.91$,	$p < .01$	A > B
Session 6:	$F(1, 109) = 10.98$,	$p < .01$	A > B
Session 12:	$F(1, 47) = 1.49$,	NS	
Session 18:	$F(1, 58) = 5.47$,	$p < .05$	A > B

TSCSTOT: Tennessee Self-Concept Scale

Session 1:	$F(1, 161) = 3.85$,	NS ($p < .06$)	
Session 3:	$F(1, 127) = 3.20$,	NS ($p < .08$)	
Session 6:	$F(1, 117) = 4.54$,	$p < .05$	A > B
Session 12:	$F(1, 49) = .45$,	NS	
Session 18:	$F(1, 58) = 3.18$,	NS ($p < .08$)	

MFSTOT: Modified Fear Survey

Session 1:	$F(1, 161) = 0.21$,	NS
Session 3:	$F(1, 130) = 0.03$,	NS
Session 6:	$F(1, 118) = 0.31$,	NS
Session 12:	$F(1, 49) = 0.00$,	NS
Session 18:	$F(1, 59) = 0.00$,	NS

IESTOT: Impact of Event Scale

Session 1:	$F(1, 157) = 27.72$,	$p < .0001$	A > B
Session 3:	$F(1, 128) = 31.90$,	$p < .0001$	A > B
Session 6:	$F(1, 110) = 48.60$,	$p < .0001$	A > B
Session 12:	$F(1, 44) = 8.08$,	$p < .01$	A > B
Sesison 18:	$F(1,, 53) = 6.11$,	$p < .05$	A > B

Note: A = Rape
B = Robbery

Table 19. Covariance Analyses of History of Victimization: Cross-sectional ANCOVAs of Male Robbery vs. Female Robbery Victims

Global Severity Index: Brief Symptom Inventory

Session 1:	$F(1, 195) = 0.19$,	NS	
Session 3:	$F(1, 148) = 0.92$,	NS	
Session 6:	$F(1, 138) = 0.27$,	NS	
Session 12:	$F(1, 63) = 0.00$,	NS	
Session 18:	$F(1, 82) = 0.58$,	NS	

Beck Depression Inventory

Session 1:	$F(1, 178) = 4.26$,	$p < .05$	F < M
Session 3:	$F(1, 140) = 0.20$,	NS	
Session 6:	$F(1, 128) = 1.04$,	NS	
Session 12:	$F(1, 58) = 0.70$,	NS	
Session 18:	$F(1, 80) = 0.86$,	NS	

TSCSTOT: Tennessee Self-Concept Scale

Session 1:	$F(1, 193) = 0.02$,	NS	
Session 3:	$F(1, 148) = 0.00$,	NS	
Session 6:	$F(1, 137) = 0.00$,	NS	
Session 12:	$F(1, 62) = 0.70$,	NS	
Session 18:	$F(1, 82) = 0.31$,	NS	

MFSTOT: Modified Fear Survey

Session 1:	$F(1, 195) = 37.32$,	$p < .0001$	F > M
Session 3:	$F(1, 150) = 29.49$,	$p < .0001$	F > M
Session 6:	$F(1, 138) = 23.92$,	$p < .0001$	F > M
Session 12:	$F(1, 62) = 11.57$,	$p < .01$	F > M
Session 18:	$F(1, 82) = 9.89$,	$p < .01$	F > M

IESTOT: Impact of Event Scale

Session 1:	$F(1, 193) = 8.91$,	$p < .01$	F > M
Session 3:	$F(1, 148) = 3.25$,	NS	($p < .08$)
Session 6:	$F(1, 128) = 0.47$,	NS	
Session 12:	$F(1, 60) = 0.34$,	NS	
Session 18:	$F(1, 79) = 0.20$,	NS	

Table 20. Stepwise Multiple Regression Analyses: The Effect of History of Victimization on Rape Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.PREVIC	.68	5.02*	1.DOMVIOL	.08	4.06*	1.TOTCHAB	.22	6.53*	None entered		
TSCSTOT	None entered			1.OBSVIOL	.09	4.30*	None entered			None entered		
MFSTOT	None entered			1.DOMVIOL	.08	4.16*	1.EMABUSE	.30	10.29**	None entered		
				2.CHDSXAB	.08	4.16*	2.PREVIC	.12	4.83*			
					.16	4.30*		.42	8.38**			
IESTOT	None entered			None entered			None entered			None entered		

Note:

TOTCHAB = Total child abuse
CHDSXAB = Child sexual abuse
INCEST = Incest
EMABUSE = Emotional abuse
OBSVIOL = Observed violence
DOMVIOL = Domestic violence
PREVIC = Previous victimization

* = .05
** = .01
*** = .001
**** = .0001

Table 21. Stepwise Multiple Regression Analyses: The Effect of History of Victimization on Female Robbery Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.PREVIC	.14	14.12***	1.OBSVIOL	.11	7.81**	1.EMABUSE	.13	4.50*	1.PREVIC	.11	6.38*
TSCSTOT	1.EMABUSE	.26	31.64****	1.PREVIC	.17	13.47***	1.EMABUSE	.41	20.74****	1.TOTCHAB	.11	6.24*
							2.PREVIC	.14	8.75**			
							3.TOTCHAB	.09	6.62*			
								.63	16.07****			
MFSTOT	1.EMABUSE	.10	10.27**	1.OBSVIOL	.21	16.93****	1.PREVIC	.17	6.49*	1.OBSVIOL	.19	12.04**
				2.TOTCHAB	.08	6.82*	2.DOMVIOL	.11	4.50*			
				3.EMABUSE	.07	6.28*		.28	5.86**			
					.35	11.23****						
IESTOT	1.EMABUSE	.21	22.84****	1.CHDSXAB	.14	9.05**	1.INCEST	.16	5.29*	None entered		
							2.CHDSXAB	.14	5.36*			
								.30	5.74**			

Note:

TOTCHAB = Total child abuse
CHDSXAB = Child sexual abuse
INCEST = Incest
EMABUSE = Emotional abuse
OBSVIOL = Observed violence
DOMVIOL = Domestic violence
PREVIC = Previous victimization

* = .05
** = .01
*** = .001
**** = .0001

Table 22. Stepwise Multiple Regression Analyses: The Effect of History of Victimization on Male Robbery Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.CHDSXAB	.08	8.31**	1.INCEST	.17	13.99***	1.PREVIC	.09	4.65*	1.PREVIC	.19	10.53**
				2.TOTCHAB	.07	6.39*	2.TOTCHAB	.09	5.00*			
				3.PREVIC	.05	4.51*		.18	5.02*			
					.29	9.04****						
TSCSTOT	1.INCEST	.09	9.38**	1.CHDSXAB	.08	6.02*	None entered			1.PREVIC	.12	6.37*
	2.EMABUSE	.07	7.84**									
		.16	8.94***									
MFSTOT	1.CHDSXAB	.04	4.57*	1.DOMVIOL	.09	6.38*	None entered			1.CHDSXAB	.23	13.53***
IESTOT	1.INCEST	.04	4.43*	None entered			None entered			None entered		

Note:

TOTCHAB = Total child abuse
CHDSXAB = Child sexual abuse
INCEST = Incest
EMABUSE = Emotional abuse
OBSVIOL = Observed violence
DOMVIOL = Domestic violence
PREVIC = Previous victimization
MIL = Military experience

* = .05
** = .01
*** = .001
**** = .0001

Table 23. Simple Regression Analyses: History of Victimization of Rape and Robbery Groups.

RAPE VICTIMS	1 month		6 months		12 months		18 months	
	R^2	F	R^2	F	R^2	F	R^2	F
GSI	NS		NS		.65	4.52**	.60	2.99*
TSCSTOT	NS		NS		NS		NS	
MFSTOT	NS		NS		.56	3.24*	NS	
IES	NS		NS		NS		NS	
FEMALE ROBBERY VICTIMS								
GSI	.19	2.82*	NS		NS		NS	
TSCSTOT	.32	5.55****	.31	3.65**	.69	7.52****	NS	
MFSTOT	.18	2.63*	.39	5.29****	NS		.29	2.56*
IES	.24	3.60**	.30	3.15**	.43	2.36*	NS	
MALE ROBBERY VICTIMS								
GSI	.21	3.02**	.31	3.38**	NS		NS	
TSCSTOT	.19	2.66*	.22	2.15*	NS		NS	
MFSTOT	NS		NS		NS		.31	2.16*
IES	NS		NS		NS		NS	

Note: * = .05
** = .01
*** = .001
**** = .0001

Table 24. Multivariate Analyses of Variance: Indicators of Prior Psychological Problems, Male vs. Female Robbery Victims

One month:	Hotelling-Lawley Trace = .0848		
	$F(3, 193) = 5.45$,	$p < .01$	
ANOVAs			
PPT:	$F(1, 195) = 3.42$,	NS ($p < .07$)	F > M
DAS:	$F(1, 195) = 8.92$,	$p < .01$	F > M
CD:	$F(1, 195) = 1.22$,	NS	
Three months:	Hotelling-Lawley Trace = .9253		
	$F(3, 143) = 3.85$,	$p < .05$	
ANOVAs			
PPT:	$F(1, 145) = .73$,	NS	
DAS:	$F(1, 145) = 6.88$,	$p < .01$	F > M
CD:	$F(1, 145) = 1.82$,	NS	
Six months:	Hotelling-Lawley Trace = .0937		
	$F(3, 131) = 4.09$,	$p < .01$	
ANOVAs			
PPT:	$F(1, 133) = 1.26$,	NS	
DAS:	$F(1, 133) = 5.85$,	$p < .05$	F > M
CD:	$F(1, 133) = 2.93$,	NS ($p < .09$)	F > M
Twelve months:	Hotelling-Lawley Trace = .0788		
	$F(3, 78) = 2.05$,	$p < .15$	
ANOVAs			
PPT:	$F(1, 80) = 4.48$,	$p < .05$	F > M
DAS:	$F(1, 80) = 2.93$,	NS ($p < .09$)	F > M
CD:	$F(1, 80) = .01$,	NS	
Eighteen months:	Hotelling-Lawley Trace = .0676		
	$F(3, 96) = 2.16$,	$p < .10$	
ANOVAs			
PPT:	$F(1, 98) = .16$,	NS	
DAS:	$F(1, 98) = .61$,	NS	
CD:	$F(1, 98) = 3.19$,	NS ($p < .08$)	M > F

Note: PPT = Prior psychological/psychiatric treatment
DAS = Depression and suicide
CD = Treatment for chemical dependency

Table 25. Covariance Analyses of Precrime Psychological Problems: ANCOVAs of Male vs. Female Robbery Victims.

Global Severity Index
- Session 1: $F(1, 193) = .07$, NS
- Session 3: $F(1, 143) = 1.57$, NS
- Session 6: $F(1, 132) = 1.80$, NS
- Session 12: $F(1, 61) = 1.42$, NS
- Session 18: $F(1, 80) = .68$, NS

Beck Depression Inventory
- Session 1: $F(1, 176) = 3.75$, NS ($p < .06$)
- Session 3: $F(1, 135) = 0.01$, NS
- Session 6: $F(1, 123) = 0.00$, NS
- Session 12: $F(1, 56) = 0.04$, NS
- Session 18: $F(1, 78) = 1.13$, NS

Tennessee Self-Concept Scale
- Session 1: $F(1, 191) = .00$, NS
- Session 3: $F(1, 142) = .34$, NS
- Session 6: $F(1, 131) = .28$, NS
- Session 12: $F(1, 60) = .02$, NS
- Session 18: $F(1, 80) = .50$, NS

Modified Fear Survey
- Session 1: $F(1, 193) = 35.71$, $p < .0001$ F > M
- Session 3: $F(1, 144) = 27.59$, $p < .0001$ F > M
- Session 6: $F(1, 132) = 19.58$, $p < .0001$ F > M
- Session 12: $F(1, 60) = 4.76$, $p < .05$ F > M
- Session 18: $F(1, 80) = 9.89$, $p < .01$ F > M

Impact of Event Scale
- Session 1: $F(1, 191) = 7.88$, $p < .01$ F > M
- Session 3: $F(1, 142) = 4.34$, $p < .05$ F > M
- Session 6: $F(1, 123) = 1.21$, NS
- Session 12: $F(1, 58) = 0.12$, NS
- Session 18: $F(1, 77) = 0.02$, NS

Table 26. Stepwise Multiple Regression Analyses: The Effect of Precrime Psychological Problems on Recovery in Female Rape Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.DAS	.06	4.68*	None entered			None entered			None entered		
TSCSTOT	1.DAS	.10	7.18**	None entered			None entered			None entered		
MFSTOT	None entered			None entered			None entered			1.PPT	.19	4.49*
IESTOT	None entered			None entered			None entered			None entered		

Note:

DAS = Depression and suicide history
PPT = Prior psychiatric/psychological treatment
CD = Chemical dependency treatment

* = .05
** = .01
*** = .001
**** = .0001

Table 27. Stepwise Multiple Regression Analyses: The Effect of Precrime Psychological Problems on Recovery in Female Robbery Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.DAS	.16	17.20****	1.DAS	.12	8.76**	None entered			1.DAS	.13	7.17**
TSCSTOT	1.DAS	.16	16.35****	1.DAS	.21	17.26****	None entered			1.PPT	.15	8.68**
	2.PPT	.04	4.25*									
		.20	10.60****									
MFSTOT	1.DAS	.11	11.31**	None entered			None entered			1.PPT	.13	7.42**
	2.PPT	.04	4.12*									
		.15	7.92***									
IESTOT	1.DAS	.13	12.65***	1.PPT	.19	13.61***	None entered			1.PPT	.13	6.74*
	2.PPT	.05	5.47*									
		.18	9.39***									

Note:

DAS = Depression and suicide history
PPT = Prior psychiatric/psychological treatment
CD = Chemical dependency treatment

* = .05
** = .01
*** = .001
**** = .0001

Table 28. Stepwise Multiple Regression Analyses: The Effect of Precrime Psychological Problems on Recovery in Male Robbery Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.DAS	.08	9.05**	1.DAS	.13	10.22**	1.DAS	.14	7.82**	1.PPT	.11	5.86*
TSCSTOT	1.PPT	.17	21.05****	1.PPT	.07	5.10*	1.DAS	.22	13.10***	1.DAS	.33	22.87****
	2.DAS	.04	5.69*									
		.21	13.86****									
MFSTOT	None entered			None entered			1.DAS	.19	11.33**	1.DAS	.21	12.18**
IESTOT	None entered			None entered			None entered			None entered		

Note:

DAS = Depression and suicide history
PPT = Prior psychiatric/psychological treatment
CD = Chemical dependency treatment

* = .05
** = .01
*** = .001
**** = .0001

Table 29. Multivariate Analyses of Variance: Assault Variables, Rape vs. Robbery Victims.

One Month:	Hotelling-Lawley Trace = .9277		
	$F(7, 131) = 17.36$,	$p < .0001$	
ANOVAs			
NUMBER:	$F(1, 137) = 16.54$,	$p < .0001$	B > A
ACQSTAT:	$F(1, 137) = .17$,	NS	
DISWEAP:	$F(1, 137) = 1.42$,	NS	
THREAT:	$F(1, 137) = 16.91$,	$p < .0001$	A > B
RESTRAIN:	$F(1, 137) = 25.31$,	$p < .0001$	A > B
LENGTH CRIME:	$F(1, 137) = 66.06$,	$p < .0001$	A > B
INJURY:	$F(1, 137) = 9.39$,	$p < .01$	A > B
Three Months:	Hotelling-Lawley Trace = 1.2004		
	$F(7, 104) = 17.83$,	$p < .0001$	
ANOVAs			
NUMBER:	$F(1, 110) = 18.25$,	$p < .0001$	B > A
ACQSTAT:	$F(1, 110) = 1.02$,	NS	
DISWEAP:	$F(1, 110) = .33$,	NS	
THREAT:	$F(1, 110) = 25.52$,	$p < .0001$	A > B
RESTRAIN:	$F(1, 110) = 29.23$,	$p < .0001$	A > B
LENGTH CRIME:	$F(1, 110) = 21.36$,	$p < .0001$	A > B
INJURY:	$F(1, 110) = .67$,	NS	
Six Months:	Hotelling-Lawley Trace = .9993		
	$F(7, 90) = 12.85$,	$p < .0001$	
ANOVAs			
NUMBER:	$F(1, 96) = 12.08$,	$p < .001$	B > A
ACQSTAT:	$F(1, 96) = 2.43$,	NS	
DISWEAP:	$F(1, 96) = 5.22$,	$p < .05$	A > B
THREAT:	$F(1, 96) = 13.77$,	$p < .001$	A > B
RESTRAIN:	$F(1, 96) = 36.99$,	$p < .0001$	A > B
LENGTH CRIME:	$F(1, 96) = 40.83$,	$p < .0001$	A > B
INJURY:	$F(1, 96) = 9.01$,	$p < .01$	A > B
Twelve Months:	Hotelling-Lawley Trace = 1.6169		
	$F(7, 49) = 11.32$,	$p < .0001$	
ANOVAs			
NUMBER:	$F(1, 55) = 2.87$,	NS	
ACQSTAT:	$F(1, 55) = .32$,	NS	
DISWEAP:	$F(1, 55) = 1.27$,	NS	
THREAT:	$F(1, 55) = 9.42$,	$p < .01$	A > B
RESTRAIN:	$F(1, 55) = 38.51$,	$p < .0001$	A > B
LENGTH CRIME:	$F(1, 55) = 43.99$,	$p < .0001$	A > B
INJURY:	$F(1, 55) = 3.73$,	NS ($p = .06$)	A > B
Eighteen Months:	Hotelling-Lawley Trace = 1.6696		
	$F(7, 60) = 14.31$,	$p < .0001$	
ANOVAs			
NUMBER:	$F(1, 66) = 5.91$,	$p < .05$	B > A
ACQSTAT:	$F(1, 66) = .32$,	NS	
DISWEAP:	$F(1, 66) = 2.10$,	NS	
THREAT:	$F(1, 66) = 8.27$,	$p < .01$	A > B
RESTRAIN:	$F(1, 66) = 16.67$,	$p < .0001$	A > B
LENGTH CRIME:	$F(1, 66) = 64.18$,	$p < .0001$	A > B
INJURY:	$F(1, 66) = .35$,	NS	

Note:
- NUMBER = The number of perpetrators
- ACQSTAT = Acquaintanceship status with the perpetrator
- DISWEAP = The perpetrator displayed a weapon(s)
- THREAT = The extent to which the victim was threatened
- RESTRAIN = The extent to which the victim was restrained
- LENGTH CRIME = The time from the beginning of the crime until the victim was free
- INJURY = The extent of injuries sustained by the victim

Table 30. Multivariate Analyses of Variance: Assault Variables, Male vs. Female Robbery Victims.

One month:	Hotelling-Lawley Trace = .2165	
	F(7, 179) = 5.54,	p < .0001
ANOVAs		
NUMBER:	F(1, 185) = 22.41,	p < .0001 M > F
ACQSTAT:	F(1, 185) = 3.44,	NS (p < .07) F > M
DISWEAP:	F(1, 185) = 4.26,	p < .05 M > F
THREAT:	F(1, 185) = 9.54,	p < .01 M > F
RESTRAIN:	F(1, 185) = 1.06,	NS
LENGTH CRIME:	F(1, 185) = .24,	NS
INJURY:	F(1, 185) = 4.71,	p < .05 M > F
Three months:	Hotelling-Lawley Trace = .1899	
	F(7, 134) = 3.64,	p < .01
ANOVAs		
NUMBER:	F(1, 140) = 13.99,	p < .001 M > F
ACQSTAT:	F(1, 140) = .16,	NS
DISWEAP:	F(1, 140) = 3.67,	NS (p < .06) M > F
THREAT:	F(1, 140) = 6.79,	p < .05 M > F
RESTRAIN:	F(1, 140) = .58,	NS
LENGTH CRIME:	F(1, 140) = .64,	NS
INJURY:	F(1, 140) = 1.12,	NS
Six months:	Hotelling-Lawley Trace = .2083	
	F(7, 124) = 3.69,	p < .01
ANOVAs		
NUMBER:	F(1, 130) = 11.87,	p < .001 M > F
ACQSTAT:	F(1, 130) = 2.25,	NS
DISWEAP:	F(1, 130) = 8.12,	p < .01 M > F
THREAT:	F(1, 130) = 3.33,	NS (p < .07) M > F
RESTRAIN:	F(1, 130) = .30,	NS
LENGTH CRIME:	F(1, 130) = .02,	NS
INJURY:	F(1, 130) = 3.11,	NS (p < .08) M > F
Twelve months:	Hotelling-Lawley Trace = .2816	
	F(7, 75) = 3.02,	p < .01
ANOVAs		
NUMBER:	F(1, 81) = 12.76,	p < .001 M > F
ACQSTAT:	F(1, 81) = 3.08,	NS (p < .08) F > M
DISWEAP:	F(1, 81) = 2.54,	NS
THREAT:	F(1, 81) = 3.22,	NS (p < .08) M < F
RESTRAIN:	F(1, 81) = 1.91,	NS
LENGTH CRIME:	F(1, 81) = .46,	NS
INJURY:	F(1, 81) = .99,	NS
Eighteen months:	Hotelling-Lawley Trace = .2982	
	F(7, 90) = 3.83,	p < .01
ANOVAs		
NUMBER:	F(1, 96) = 12.25,	p < .001 M > F
ACQSTAT:	F(1, 96) = 4.57,	p < .05 F > M
DISWEAP:	F(1, 96) = 2.94,	NS (p < .09) M > F
THREAT:	F(1, 96) = 3.96,	p < .05 M > F
RESTRAIN:	F(1, 96) = 3.27,	NS (p < .08) M > F
LENGTH CRIME:	F(1, 96) = 2.92,	NS (p < .09) M > F
INJURY:	F(1, 96) = .00,	NS

Note: NUMBER = The number of perpetrators
ACQSTAT = Acquaintanceship status with the perpetrator
DISWEAP = The perpetrator displayed a weapon(s)
THREAT = The extent to which the victim was threatened
RESTRAIN = The extent to which the victim was restrained
LENGTH CRIME = The time from the beginning of the crime until the victim was free
INJURY = The extent of injuries sustained by the victim

Table 31. Covariance Analyses of Assault Variables: Cross-sectional ANCOVAs of Female Rape vs. Female Robbery

Global Severity Index: Brief Symptom Inventory

Session 1:	$F(1, 145) = 0.16$,	NS	
Session 3:	$F(1, 115) = 4.49$,	$p < .05$	A > B
Session 6:	$F(1, 97) = 1.74$,	NS	
Session 12:	$F(1, 44) = 0.25$,	NS	
Session 18:	$F(1, 53) = 0.55$,	NS	

Beck Depression Inventory

Session 1:	$F(1, 135) = 5.44$,	$p < .05$	1 > 2
Session 3:	$F(1, 107) = 5.55$,	$p < .05$	1 > 2
Session 6:	$F(1, 91) = 4.35$,	$p < .05$	1 > 2
Session 12:	$F(1, 43) = 0.59$,	NS	
Session 18:	$F(1, 52) = 2.52$,	NS	

TSCSTOT: Tennessee Self-Concept Scale

Session 1:	$F(1, 144) = 0.14$,	NS	
Session 3:	$F(1, 113) = 1.40$,	NS	
Session 6:	$F(1, 98) = 1.53$,	NS	
Session 12:	$F(1, 44) = 0.19$,	NS	
Session 18:	$F(1, 52) = 0.63$,	NS	

MFSTOT: Modified Fear Survey

Session 1:	$F(1, 144) = 0.42$,	NS	
Session 3:	$F(1, 116) = 0.43$,	NS	
Session 6:	$F(1, 99) = 0.77$,	NS	
Session 12:	$F(1, 44) = 2.55$,	NS	
Session 18:	$F(1, 53) = 0.76$,	NS	

IESTOT: Impact of Event Scale

Session 1:	$F(1, 139) = 11.19$,	$p < .01$	A > B
Session 3:	$F(1, 114) = 16.11$,	$p < .0001$	A > B
Session 6:	$F(1, 91) = 17.62$,	$p < .0001$	A > B
Session 12:	$F(1, 39) = 3.54$,	NS ($p < .07$)	
Session 18:	$F(1, 47) = 1.27$,	NS	

Note: A = Rape
B = Robbery

Table 32. Stepwise Multiple Regression Analyses: Assault Variables for Rape Victims

Measure	1 month			6 months			12 months			18 months		
	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	None entered			1.THREAT	.21	7.86**	None entered			None entered		
TSCSTOT	None entered			None entered			None entered			None entered		
MFSTOT	None entered			None entered			None entered			None entered		
IESTOT	None entered			1.RESTRAIN	.18	6.79*	None entered			None entered		

Note:

NUM = Number of perpetrators
RESTRAIN = Effect of restraint
THREAT = Extent of threat
ACQSTAT = Acquaintanceship status with perpetrator
DISWEAP = Displayed weapon
LC = Length of crime
INJ = Extent of injury

* = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 33. Stepwise Multiple Regression Analyses: Assault Variables of Female Robbery Victims

Measure	1 month			6 months			12 months			18 months		
	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	None entered			None entered			1.RESTRAIN	.22	9.04**	None entered		
TSCSTOT	None entered			1.ACQSTAT	.16	12.06***	1.ACQSTAT	.20	8.15**	1.ACQSTAT	.11	6.32*
MFSTOT	None entered			1.DISWEAP	.08	5.04*	1.THREAT	.20	7.77**	1.INJ	.10	5.86*
IESTOT	None entered			1.THREAT	.16	10.92**	1.THREAT	.23	8.49**	1.ACQSTAT	.10	5.14*

Note:

NUM = Number of perpetrators
RESTRAIN = Effect of restraint
THREAT = Extent of threat
ACQSTAT = Acquaintanceship status with perpetrator
DISWEAP = Displayed weapon
LC = Length of crime
INJ = Extent of injury

* = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 34. Stepwise Multiple Regression Analyses: Assault Variables of Male Robbery Victims

Measure	1 month			6 months			12 months			18 months		
	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.NUM	.05	5.49*	1.RESTRAIN	.06	4.31*	None entered			None entered		
TSCSTOT	None entered			None entered			1.NUM	.08	4.34*	None entered		
MFSTOT	None entered			None entered			None entered			None entered		
IESTOT	1.NUM	.04	4.63*	None entered			None entered			None entered		

Note:

NUM = Number of perpetrators
RESTRAIN = Effect of restraint
THREAT = Extent of threat
ACQSTAT = Acquaintanceship status with perpetrator
DISWEAP = Displayed weapon
LC = Length of crime
INJ = Extent of injury

* = $p < .05$

Table 35. Multivariate Analyses of Variance: Within-Assault Reactions for Rape vs. Robbery Victims.

One Month: Hotelling-Lawley Trace = .8824
F(9, 130) = 12.75, p < .0001

ANOVAs

PASSIVE:	F(1, 138) = 73.67,	p < .0001 A > B
ACTIVE:	F(1, 138) = 7.57,	p < .01 A > B
AGGRESSIVE:	F(1, 138) = 2.15,	NS
ANGRY:	F(1, 138) = 1.78,	NS
ANXIOUS:	F(1, 138) = 12.68,	p < .001 A > B
CALM:	F(1, 138) = 3.85,	NS (p = .052) B > A
PID:	F(1, 138) = 23.72,	p < .0001 A > B
PII:	F(1, 138) = 33.64,	p < .0001 A > B
PDO:	F(1, 138) = 2.32,	NS

Three Months: Hotelling-Lawley Trace = .9265
F(9, 103) = 10.60, p < .0001

ANOVAs

PASSIVE:	F(1, 111) = 57.82,	p < .0001 A > B
ACTIVE:	F(1, 111) = 17.03,	p < .0001 A > B
AGGRESSIVE:	F(1, 111) = 8.51,	p < .01 A > B
ANGRY:	F(1, 111) = 2.93,	NS (p < .09) A > B
ANXIOUS:	F(1, 111) = 13.65,	p < .001 A > B
CALM:	F(1, 111) = 3.25,	NS (p < .08) B > A
PID:	F(1, 111) = 41.59,	p < .0001 A > B
PII:	F(1, 111) = 27.49,	p < .0001 A > B
PDO:	F(1, 111) = .24,	NS

Six Months: Hotelling-Lawley Trace = 1.3104
F(9, 88) = 12.81, p < .0001

ANOVAs

PASSIVE:	F(1, 96) = 62.07,	p < .0001 A > B
ACTIVE:	F(1, 96) = 14.42,	p < .001 A > B
AGGRESSIVE:	F(1, 96) = 5.30,	P < .05 A > B
ANGRY:	F(1, 96) = .60,	NS
ANXIOUS:	F(1, 96) = 13.80,	p < .001 A > B
CALM:	F(1, 96) = 3.24,	NS (p = .07) B > A
PID:	F(1, 96) = 34.80,	p < .0001 A > B
PII:	F(1, 96) = 19.72,	p < .0001 A > B
PDO:	F(1, 96) = .40,	NS

Twelve Months: Hotelling-Lawley Trace = 1.8244
F(9, 45) = 9.12, p < .0001

ANOVAs

PASSIVE:	F(1, 53) = 28.84,	p < .0001 A > B
ACTIVE:	F(1, 53) = 10.17,	p < .01 A > B
AGGRESSIVE:	F(1, 53) = 3.29,	NS (p = .08) A > B
ANGRY:	F(1, 53) = .03,	NS
ANXIOUS:	F(1, 53) = .69,	NS
CALM:	F(1, 53) = 8.29,	p < .01 B > A
PID:	F(1, 53) = 51.15,	p < .0001 A > B
PII:	F(1, 53) = 45.27,	p < .0001 A > B
PDO:	F(1, 53) = 2.23,	NS

Table 35. Cont'd

Eighteen Months: Hotelling-Lawley Trace = .5375
$F(9, 56) = 3.34$, $p < .01$

ANOVAs

PASSIVE:	$F(1, 64) = 25.81$,	$p < .0001$	A > B
ACTIVE:	$F(1, 64) = .40$,	NS	
AGGRESSIVE:	$F(1, 64) = .81$,	NS	
ANGRY:	$F(1, 64) = .00$,	NS	
ANXIOUS:	$F(1, 64) = 3.73$,	NS ($p = .058$)	A > B
CALM:	$F(1, 64) = .01$,	NS	
PID:	$F(1, 64) = 5.49$,	$p < .05$	A > B
PII:	$F(1, 64) = 6.96$,	$p < .05$	A > B
PDO:	$F(1, 64) = .06$,	NS	

Note: PID = Perception of imminent death
PII = Perception of imminent injury
PDO = Perception of danger to others

A = Rape
B = Robbery

Table 36. Multivariate Analyses of Variance: Within-Assault Reactions of Male vs. Female Robbery Victims

One Month:	Hotelling-Lawley Trace = .2846	
	F(9, 177) = 5.60,	p < .0001
ANOVAs		
PASSIVE:	F(1, 185) = 5.92,	p < .05 M > F
ACTIVE:	F(1, 185) = 2.34,	NS
AGGRESSIVE:	F(1, 185) = .51,	NS
ANGRY:	F(1, 185) = 2.13,	NS
ANXIOUS:	F(1, 185) = 13.82,	p < .001 F > M
CALM:	F(1, 185) = 3.58,	NS (p = .06) M > F
PID:	F(1, 185) = .39,	NS
PII:	F(1, 185) = .90,	NS
PDO:	F(1, 185) = 7.05,	p < .01 F > M
Three Months:	Hotelling-Lawley Trace = .3393	
	F(9, 133) = 5.01,	p < .0001
ANOVAs		
PASSIVE:	F(1, 141) = 3.53,	NS (p < .06) M > F
ACTIVE:	F(1, 141) = .00,	NS
AGGRESSIVE:	F(1, 141) = .97,	NS
ANGRY:	F(1, 141) = 3.88,	NS (p < .06) F > M
ANXIOUS:	F(1, 141) = 21.39,	p < .0001 F > M
CALM:	F(1, 141) = 3.13,	NS (p < .08) M < F
PID:	F(1, 141) = .12,	NS
PII:	F(1, 141) = .00,	NS
PDO:	F(1, 141) = 6.35,	p < .05 F < M
Six Months:	Hotelling-Lawley Trace = .2326	
	F(9, 120) = 3.10,	p < .01
ANOVAs		
PASSIVE:	F(1, 128) = 2.76,	NS
ACTIVE:	F(1, 128) = .27,	NS
AGGRESSIVE:	F(1, 128) = .03,	NS
ANGRY:	F(1, 128) = 6.26,	p < .05 F > M
ANXIOUS:	F(1, 128) = 10.92,	p < .01 F > M
CALM:	F(1, 128) = 1.48,	NS
PID:	F(1, 128) = .02,	NS
PII:	F(1, 128) = .04,	NS
PDO:	F(1, 128) = 2.67,	NS
Twelve Months:	Hotelling-Lawley Trace = .4305	
	F(9, 72) = 3.44,	p < .01
ANOVAs		
PASSIVE:	F(1, 80) = 1.11,	NS
ACTIVE:	F(1, 80) = .00,	NS
AGGRESSIVE:	F(1, 80) = .07,	NS
ANGRY:	F(1, 80) = .77,	NS
ANXIOUS:	F(1, 80) = 15.83,	p < .001 F > M
CALM:	F(1, 80) = .00,	NS
PID:	F(1, 80) = .24,	NS
PII:	F(1, 80) = .44,	NS
PDO:	F(1, 80) = .00,	NS
Eighteen Months:	Hotelling-Lawley Trace = .1391	
	F(9, 87) = 1.34,	NS

Note: PID = Perception of imminent death
PII = Perception of imminent injury
PDO = Perception of danger to others

Table 37. Covariance Analyses of Within-Assault Reactions: Cross-sectional ANCOVAs of Female Rape vs. Female Robbery Victims

Global Severity Index: Brief Symptom Inventory
- Session 1: $F(1, 144) = .07$, NS
- Session 3: $F(1, 113) = 5.56$, $p < .05$ A > B
- Session 6: $F(1, 97) = 2.79$, NS
- Session 12: $F(1, 43) = .22$, NS
- Session 18: $F(1, 52) = .31$, NS

Beck Depression Inventory
- Session 1: $F(1, 133) = 1.46$, NS
- Session 3: $F(1, 105) = 3.76$, NS ($p < .06$)
- Session 6: $F(1, 91) = 3.48$, NS ($p < .07$)
- Session 12: $F(1, 41) = 1.53$, NS
- Session 18: $F(1, 51) = 3.58$, NS ($p < .07$)

TSCSTOT: Tennessee Self-Concept Scale
- Session 1: $F(1, 143) = .21$, NS
- Session 3: $F(1, 111) = .76$, NS
- Session 6: $F(1, 97) = .76$, NS
- Session 12: $F(1, 43) = .22$, NS
- Session 18: $F(1, 51) = 1.90$, NS

MFSTOT: Modified Fear Survey
- Session 1: $F(1, 143) = 3.22$, NS ($p < .08$)
- Session 3: $F(1, 114) = 1.05$, NS
- Session 6: $F(1, 98) = .93$, NS
- Session 12: $F(1, 43) = 8.04$, $p < .01$ B > A
- Session 18: $F(1, 52) = 1.01$, NS

IESTOT: Impact of Event Scale
- Session 1: $F(1, 138) = 3.06$, NS ($p < .09$)
- Session 3: $F(1, 112) = 3.02$, NS ($p < .09$)
- Session 6: $F(1, 90) = 16.10$, $p < .0001$ A < B
- Session 12: $F(1, 38) = .01$, NS
- Session 18: $F(1, 46) = .00$, NS

Note: A = Rape
B = Robbery

Table 38. Covariance Analyses of Within-Assault Reactions: Cross-sectional ANCOVAs of Male vs. Female Robbery Victims

Global Severity Index: Brief Symptom Inventory

Session 1:	$F(1, 191) = .01$,	NS	
Session 3:	$F(1, 143) = 1.39$,	NS	
Session 6:	$F(1, 133) = .67$,	NS	
Session 12:	$F(1, 60) = .02$,	NS	
Session 18:	$F(1, 78) = 1.33$,	NS	

Beck Depression Inventory

Session 1:	$F(1, 174) = 5.22$,	$p < .05$	F > M
Session 3:	$F(1, 135) = .01$,	NS	
Session 6:	$F(1, 123) = .00$,	NS	
Session 12:	$F(1, 55) = 1.23$,	NS	
Session 18:	$F(1, 76) = .09$,	NS	

TSCSTOT: Tennessee Self-Concept Scale

Session 1:	$F(1, 189) = .12$,	NS	
Session 3:	$F(1, 143) = .02$,	NS	
Session 6:	$F(1, 132) = .16$,	NS	
Session 12:	$F(1, 59) = .17$,	NS	
Session 18:	$F(1, 78) = .03$,	NS	

MFSTOT: Modified Fear Survey

Session 1:	$F(1, 191) = 27.58$,	$p < .0001$	F > M
Session 3:	$F(1, 145) = 20.05$,	$p < .0001$	F > M
Session 6:	$F(1, 133) = 13.53$,	$p < .001$	F > M
Session 12:	$F(1, 59) = 13.52$,	$p < .001$	F > M
Session 18:	$F(1, 78) = 4.93$,	$p < .05$	F > M

IESTOT: Impact of Event Scale

Session 1:	$F(1, 189) = 7.03$,	$p < .01$	F > M
Session 3:	$F(1, 143) = 3.63$,	NS ($p < .06$)	
Session 6:	$F(1, 123) = 1.86$,	NS	
Session 12:	$F(1, 57) = 1.17$,	NS	
Session 18:	$F(1, 75) = .10$,	NS	

Table 39. Stepwise Multiple Regression Analyses: Within-Assault Reactions of Rape Victims

Measure	1 month			6 months			12 months			18 months		
	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	None entered			1.ACT	.14	5.12*	None entered			1.ANG	.44	11.18**
				2.ANG	.14	6.05*				2.ACT	.20	7.29*
					.28	6.00**				3.PII	.13	6.72*
											.77	13.52***
TSCSTOT	None entered			None entered			1.CALM	.26	6.68*	1.PID	.41	9.15**
							2.ANG	.15	4.72*			
								.41	6.36**			
MFSTOT	None entered			None entered			None entered			None entered		
IESTOT	None entered			None entered			1.ANG	.28	6.53*	None entered		
							2.ANX	.21	6.83*			
								.49	7.80**			

Note:

PASS = Passive behavior
ACT = Active resistance
AGG = Aggressive resistance
ANG = Angry during assault
ANX = Anxious during assault
CALM = Calm during assault
PID = Perception of imminent death
PII = Perception of imminent injury
PDO = Perception of imminent death or injury of significant others

* = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 40. Stepwise Multiple Regression Analyses: Within-Assault Reactions of Female Robbery Victims

Measure	1 month			6 months			12 months			18 months		
	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.PASS	.11	9.85**	1.ANX	.09	6.10*	1.PII	.25	10.73**	1.AGG	.09	4.69*
	2.ANG	.07	7.29**				2.PDO	.09	4.41*			
		.18	8.95***				3.AGG	.09	4.60*			
								.43	7.59***			
TSCSTOT	1.AGG	.11	10.07**	1.AGG	.07	4.78*	1.AGG	.18	6.84*	None entered		
	2.PID	.06	5.78*									
		.17	8.22***									
MFSTOT	1.PID	.10	9.47**	1.ANX	.16	11.44**	1.PID	.28	12.20**	None entered		
							2.ANX	.10	5.13*			
								.38	9.48***			
IESTOT	1.ANX	.10	8.87**	1.ANX	.10	6.45*	1.PID	.56	37.19****	1.AGG	.09	4.57*
	2.AGG	.06	5.66*				2.AGG	.13	11.70**			
		.16	7.53***					.69	31.30****			

Note:

PASS = Passive behavior
ACT = Active resistance
AGG = Aggressive resistance
ANG = Angry during assault
ANX = Anxious during assault
CALM = Calm during assault
PID = Perception of imminent death
PII = Perception of imminent injury
PDO = Perception of imminent death or injury of significant others

* = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 41. Stepwise Multiple Regression Analyses: Within-Assault Reactions of Male Robbery Victims

Measure	Session	1 month			6 months			12 months			18 months		
	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.ANX	.08	9.30**	1.PII	.11	8.11*	1.ANX	.15	8.14**	1.ANX	.14	7.59**
TSCSTOT	None entered			None entered			1.CALM	.14	7.68**	None entered		
MFSTOT	1.ANX	.12	14.06***	1.ANX	.21	16.73****	1.ANX	.20	11.24**	1.ANX	.13	6.70*
	2.ACT	.05	5.45*							2.PII	.09	5.07*
		.17	10.06****								.22	6.19**
IES	1.PID	.09	10.67**	1.PID	.16	12.16***	None entered			None entered		
				2.ANG	.10	7.98**						
					.26	12.16***						

Note:

PASS = Passive behavior
ACT = Active resistance
AGG = Aggressive resistance
ANG = Angry during assault
ANX = Anxious during assault
CALM = Calm during assault
PID = Perception of imminent death
PII = Perception of imminent injury
PDO = Perception of imminent death or injury of significant others

* = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 42. Multivariate Analyses of Variance: Postcrime Social Support, Rape vs. Robbery Victims.

One Month:	Hotelling-Lawley Trace = .0174	
	F(3, 135) = .78,	NS
Three Months:	Hotelling-Lawley Trace = .0049	
	F(3, 101) = 1.51,	NS
Six Months:	Hotelling-Lawley Trace = .1644	
	F(3, 86) = 4.71,	p < .01
ANOVAs		
TALKCRIME:	F(1, 88) = 1.49,	NS
NREGTALK:	F(1, 88) = 14.29,	p < .001 B > A
PERCEIVE:	F(1, 88) = .58,	NS
Twelve Months:	Hotelling-Lawley Trace = .0102	
	F(3, 42) = .14,	NS
Eighteen Months:	Hotelling-Lawley Trace = .0453	
	F(3, 59) = .89,	NS

Table 43. Multivariate Analyses of Variance: Postcrime Social Support, Male vs. Female Robbery.

One month:	Hotelling-Lawley Trace = .0761	
	F(3, 162) = 4.11,	p < .01
ANOVAs		
TALKCRIME:	F(1, 164) = 10.02,	p < .01 F > M
NREGTALK:	F(1, 164) = .00,	NS
PERCEIVE:	F(1, 164) = .19,	NS
Three months:	Hotelling-Lawley Trace = .0079	
	F(3, 110) = .29,	NS
Six months:	Hotelling-Lawley Trace = .0409	
	F(3, 94) = 1.28,	NS
Twelve months:	Hotelling-Lawley Trace = .0151	
	F(3, 56) = .28,	NS
Eighteen months:	Hotelling-Lawley Trace = .0533	
	F(3, 77) = 1.37,	NS

Note: TALKCRIME = The number of people and frequency the victim talked about the crime
NREGTALK = The number of people the victim talks to on a regular basis
PERCEIVE = Perceived social support

A = Rape
B = Robbery

Table 44. Covariance Analyses of Social Support: Cross-sectional ANCOVAs of Female Rape vs. Female Robbery Victims

Global Severity Index: Brief Symptom Inventory

Session 1:	$F(1, 136) = 2.77$,	NS	
Session 3:	$F(1, 101) = 5.95$,	$p < .05$	A > B
Session 6:	$F(1, 86) = 4.65$,	$p < .05$	A > B
Session 12:	$F(1, 35) = 2.02$,	NS	
Session 18:	$F(1, 47) = 3.01$,	NS ($p < .09$)	

Beck Depression Inventory

Session 1:	$F(1, 129) = 6.17$,	$p < .05$	A < B
Session 3:	$F(1, 95) = 3.24$,	NS ($p < .08$)	
Session 6:	$F(1, 83) = 4.42$,	$p < .05$	A < B
Session 12:	$F(1, 32) = 2.77$,	NS	
Session 18:	$F(1, 46) = 4.95$,	$p < .05$	A > B

TSCSTOT: Tennessee Self-Concept Scale

Session 1:	$F(1, 134) = 1.12$,	NS	
Session 3:	$F(1, 100) = 2.29$,	NS	
Session 6:	$F(1, 86) = 4.48$,	$p < .05$	B > A
Session 12:	$F(1, 35) = .84$,	NS	
Session 18:	$F(1, 46) = 3.13$,	NS ($p < .09$)	

MFSTOT: Modified Fear Survey

Session 1:	$F(1, 134) = 0.11$,	NS	
Session 3:	$F(1, 102) = 0.03$,	NS	
Session 6:	$F(1, 87) = 2.44$,	NS	
Session 12:	$F(1, 35) = 0.26$,	NS	
Session 18:	$F(1, 47) = 0.06$,	NS	

IESTOT: Impact of Event Scale

Session 1:	$F(1, 131) = 19.98$,	$p < .0001$	A > B
Session 3:	$F(1, 101) = 21.81$,	$p < .0001$	A > B
Session 6:	$F(1, 83) = 48.67$,	$p < .0001$	A > B
Session 12:	$F(1, 32) = 10.72$,	$p < .01$	A > B
Session 18:	$F(1, 41) = 7.14$,	$p < .05$	A > B

Note: A = Rape
B = Robbery

Table 45. Stepwise Multiple Regression Analyses: The Influence of Social Support on Recovery of Rape Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.PERCEIVE	.16	11.22**	None entered			None entered			None entered		
	2.TALKCRIME	.07	5.20*									
		.23	8.61***									
TSCSTOT	None entered			None entered			None entered			None entered		
MFSTOT	None entered			None entered			None entered			None entered		
IESTOT	None entered			None entered			None entered			None entered		

Note:

TALKCRIME = Number of people talked to about the crime
NREGTALK = Number of people has regular contact with
PERCEIVE = Perceived social support

* = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 46. Stepwise Multiple Regression Analyses: The Influence of Social Support on Recovery of Female Robbery Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.PERCEIVE	.12	10.59**	1.NREGTALK	.11	5.84*	1.PERCEIVE	.15	4.75*	None entered		
	2.TALKCRIME	.05	4.22*									
		.17	7.63***									
TSCSTOT	1.PERCEIVE	.18	16.50****	None entered			1.TALKCRIME	.14	4.32*	1.PERCEIVE	.13	6.25*
MFSTOT	1.PERCEIVE	.13	11.80***	None entered			None entered			None entered		
IESTOT	1.PERCEIVE	.11	9.24**	1.NREGTALK	.13	6.34*	1.PERCEIVE	.53	25.83****	None entered		

Note:

TALKCRIME = Number of people talked to about the crime
NREGTALK = Number of people has regular contact with
PERCEIVE = Perceived social support

* = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 47. Stepwise Multiple Regression Analyses: The Influence of Social Support on Recovery of Male Robbery Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	None entered			1.PERCEIVE 2.TALKCRIME	.19 .07 .26	11.06** 4.52* 8.20***	1.TALKCRIME	.13	4.64*	None entered		
TSCSTOT	None entered			1.PERCEIVE	.21	13.01***	1.PERCEIVE	.24	9.52**	1.PERCEIVE	.20	8.50**
MFSTOT	None entered			None entered			None entered			1.PERCEIVE	.21	9.31**
IESTOT	1.TALKCRIME	.05	4.37*	None entered			None entered			None entered		

Note:

TALKCRIME = Number of people talked to about the crime
NREGTALK = Number of people has regular contact with
PERCEIVE = Perceived social support

* = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 48. Stepwise Multiple Regression Analyses: The Effect of Behavioral Responses among Rape Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.AVOIDAL	.20	10.85**	1.HABITS	.14	4.51*	None entered			1.PHYSEX	.27	4.87*
TSCSTOT	None entered			None entered			None entered			None entered		
MFSTOT	1.AVOIDAL	.24	12.89***	1.HABITS	.44	22.43****	1.HABITS	.44	8.80*	None entered		
	2.PHYSEX	.09	5.08*	2.SELFDEF	.12	7.79**						
		.33	9.63***		.56	17.83****						
IESTOT	None entered			1.SAFETY	.13	4.30*	1.SAFETY	.48	9.18*	1.AVOIDAL	.73	30.49***

Note:

MOVED = Victim moved because of the crime
CHGLIVE = Victim changed with whom he/she lived
CHLOSTJOB = Victim changed or lost job because of crime
HABITS = Victim changed daily habits & patterns (doesn't go out, leaves lights on at night)
PHYSEX = Victim changed amount of physical exercise
SAFETY = Victim changed use of safety measures
SELFDEF = Victim started taking a self-defense class
AVOIDAL = Victim avoids being alone

* = .05
** = .01
*** = .001
**** = .0001

Table 49. Stepwise Multiple Regression Analyses: The Effect of Behavioral Responses among Female Robbery Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.AVOIDAL	.12	7.72**	1.AVOIDAL	.20	10.11**	1.AVOIDAL	.35	12.86**	1.AVOIDAL	.27	10.11**
				5.PHYSEX	.11	5.90*						
					.31	8.64***						
TSCSTOT	1.SAFETY	.22	16.05***	None entered			1.SELFDEF	.19	5.38*	1.PHYSEX	.20	6.77*
	2.SELFDEF	.09	7.43**									
		.31	12.66****									
MFSTOT	1.AVOIDAL	.21	14.53***	1.CHLOSTJOB	.16	7.50**	1.AVOIDAL	.51	23.63****	1.CHLOSTJOB	.21	7.16*
	2.PHYSEX	.07	5.04*	2.SAFETY	.09	4.50*	2.SELFDEF	.09	4.86*	2.AVOIDAL	.12	4.49*
		.28	10.31***		.25	6.34**	3.CHGLIVE	.08	4.96*		.33	6.29**
								.68	14.42****			
IESTOT	1.HABITS	.09	5.64*	1.CHGLIVE	.44	27.01****	1.SELFDEF	.68	45.04****	None entered		
				2.PHYSEX	.11	7.74**						
				3.HABITS	.06	4.78*						
					.61	16.49****						

Note:

MOVED = Victim moved because of the crime
CHGLIVE = Victim changed with whom he/she lived
CHLOSTJOB = Victim changed or lost job because of crime
HABITS = Victim changed daily habits & patterns (doesn't go out, leaves lights on at night)
PHYSEX = Victim changed amount of physical exercise
SAFETY = Victim changed use of safety measures
SELFDEF = Victim started taking a self-defense class
AVOIDAL = Victim avoids being alone

* = .05
** = .01
*** = .001
**** = .0001

Table 50. Stepwise Multiple Regression Analyses: The Effect of Behavioral Responses among Male Robbery Victims

	1 month			6 months			12 months			18 months		
Measure	Step	R^2	F	Step	R^2	F	Step	R^2	F	Step	R^2	F
GSI	1.AVOIDAL	.10	7.15**	1.AVOIDAL	.11	4.74*	1.AVOIDAL	.19	8.57**	1.HABITS	.12	4.56*
TSCSTOT	1.MOVED	.07	4.96*	None entered			1.AVOIDAL	.16	6.86*	None entered		
MFSTOT	1.HABITS	.08	5.57*	1.SAFETY	.15	6.29*	1.HABITS	.24	11.26**	1.HABITS	.18	6.88*
	2.MOVED	.08	6.08*									
		.16	6.04**									
IESTOT	1.MOVED	.16	12.55***	1.HABITS	.22	10.23**	1.CHLOSTJOB	.18	7.62**	1.AVOIDAL	.30	13.70***
	2.SAFETY	.07	5.41*									
		.23	9.41***									

Note:

MOVED = Victim moved because of the crime
CHGLIVE = Victim changed with whom he/she lived
CHLOSTJOB = Victim changed or lost job because of crime
HABITS = Victim changed daily habits & patterns (doesn't go out, leaves lights on at night)
PHYSEX = Victim changed amount of physical exercise
SAFETY = Victim changed use of safety measures
SELFDEF = Victim started taking a self-defense class
AVOIDAL = Victim avoids being alone

* = .05
** = .01
*** = .001
**** = .0001

Table 51. Analyses of Variance: Treatment after Crime.

Rape versus Robbery Victims

One Month:	$F(1, 162) = 11.37$,	$p < .001$	A > B
Three Months:	$F(1, 129) = .72$,	NS	
Six Months:	$F(1, 117) = 4.29$,	$p < .05$	A > B
Twelve Months:	$F(1, 61) = 1.72$,	NS	
Eighteen Months:	$F(1, 75) = 6.63$,	$p < .05$	A > B

Male Versus Female Robbery Victims

One Month:	$F(1, 197) = 3.38$,	NS	
Three Months:	$F(1, 148) = 12.00$,	$p < .001$	F > M
Six Months:	$F(1, 138) = 4.30$,	$p < .05$	F > M
Twelve Months:	$F(1, 81) = 5.12$,	$p < .05$	F > M
Eighteen Months:	$F(1, 102) = 1.07$,	NS	

Note: A = Rape
B = Robbery

Table 52. Regression Analyses: Treatment after Crime of Female Rape Victims

Measure	1 month		6 months		12 months		18 months	
	R^2	F	R^2	F	R^2	F	R^2	F
GSI	None entered		.09	4.47*	None entered		None entered	
TSCSTOT	None entered		.13	7.49**	None entered		None entered	
MFSTOT	None entered		None entered		None entered		None entered	
IESTOT	None entered		.10	5.19*	None entered		None entered	

Note: * = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 53. Regression Analyses: Treatment after Crime of Female Robbery Victims

Measure	1 month		6 months		12 months	18 months	
	R^2	F	R^2	F	R^2	R^2	F
GSI	.11	10.85**	.08	5.94*	None entered	.10	6.15*
TSCSTOT	.05	5.07*	.10	7.35**	None entered	None entered	
MFSTOT	.12	12.55***	None entered		None entered	.11	6.47*
IESTOT	.08	7.53**	.15	9.85**	None entered	None entered	

Note: * = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 54. Regression Analyses: Treatment after Crime of Male Robbery Victims

Measure	1 month		6 months		12 months		18 months	
	R^2	F	R^2	F	R^2	F	R^2	F
GSI	.04	4.72*	None entered		None entered		None entered	
TSCSTOT	.13	15.62****	None entered		None entered		.18	10.01**
MFSTOT	None entered		None entered		None entered		None entered	
IESTOT	.08	9.44**	None entered		.11	5.67*	None entered	

Note: * = $p < .05$
** = $p < .01$
*** = $p < .001$
**** = $p < .0001$

Table 55. Percentages of Subjects Participating in Criminal Justice System

	1 month	3 months	6 months	12 months	18 months
Total Sample Size	274	213	195	94	106
1. Was a suspect apprehended?					
No	131/47.8	103/48.4	94/48.2	41/43.6	49/46.2
Yes	93/33.9	75/35.2	66/33.8	35/37.2	36/34.0
Don't know	39/14.2	22/10.3	26/13.3	14/14.9	15/14.2
2. Was warrant for arrest issued?					
No	96/35.0	75/35.2	62/31.8	23/24.5	28/26.4
Yes	71/25.9	62/29.1	61/31.3	36/38.3	32/30.2
Don't know	45/16.4	33/15.5	33/16.9	14/14.9	17/16.0
3. Did you go to the grand jury or preliminary hearing?					
No	150/54.7	119/55.9	99/50.8	44/46.8	45/42.5
Yes	34/12.4	30/14.1	27/13.8	19/20.2	23/21.7
4. Was defendent held over for trial?					
No	91/33.2	81/38.0	65/33.3	27/28.7	30/28.3
Yes	27/ 9.9	26/12.2	32/16.4	19/20.2	19/17.9
Don't know	40/14.6	26/12.2	16/ 8.2	12/12.8	16/15.1
5. How did the defendent plea?					
Guilty	10/ 3.6	9/ 4.2	5/ 2.6	10/10.6	12/11.3
Not Guilty	14/ 5.1	21/ 9.9	20/10.3	11/11.7	11/10.4
Don't know	59/21.5	31/14.6	31/15.9	20/21.3	16/15.1
6. Did you testify in the trial?					
No	73/26.6	60/28.2	57/29.2	30/31.9	34/32.1
Yes	11/ 4.0	11/ 5.2	7/ 3.6	11/11.7	14/13.2

Table 55. Cont'd

7. What was the outcome of the case?					
Case dropped	12/ 4.4	10/ 4.7	11/ 5.6	5/ 5.3	6/ 5.7
Convicted	2/ 0.7	7/ 3.3	5/ 2.6	13/13.8	13/12.3
Don't know	42/15.3	26/12.2	35/17.9	15/16.0	17/16.0
8. How were you treated during the legal process (since subject's apprehension)?*					
Positive, supportive	49/74.2	40/70.2	34/68.0	22/71.0	23/63.9
Natural, matter-of-fact	7/10.6	8/14.0	8/16.0	5/16.1	7/19.4
Negative	10/15.2	9/15.8	8/16.0	4/12.9	6/16.7
9. What was your reaction to the legal process (since subject's apprehension)?*					
Glad I went through legal process	38/64.4	40/76.9	36/78.3	20/74.1	25/78.1
Regret having gone through	2/ 3.4	1/ 2.0	1/ 2.2	2/ 7.4	1/ 3.1
Mixed feelings	19/32.2	11/21.1	9/19.5	5/18.5	6/18.8

Note. Not applicable answers and missing data have been excluded from the table but percentages were based on entire sample.

N/%.

* Percentages were based on number of cases in which there was an apprehension of a suspect (i.e. involvement in legal system) rather than the entire study sample.

Figure 1. Mean GSI (Global Severity Index) scores of female rape and robbery victims: Cross-sectional sample.

FEMALE RAPE VS FEMALE ROBBERY
CROSS SECTIONAL SAMPLE

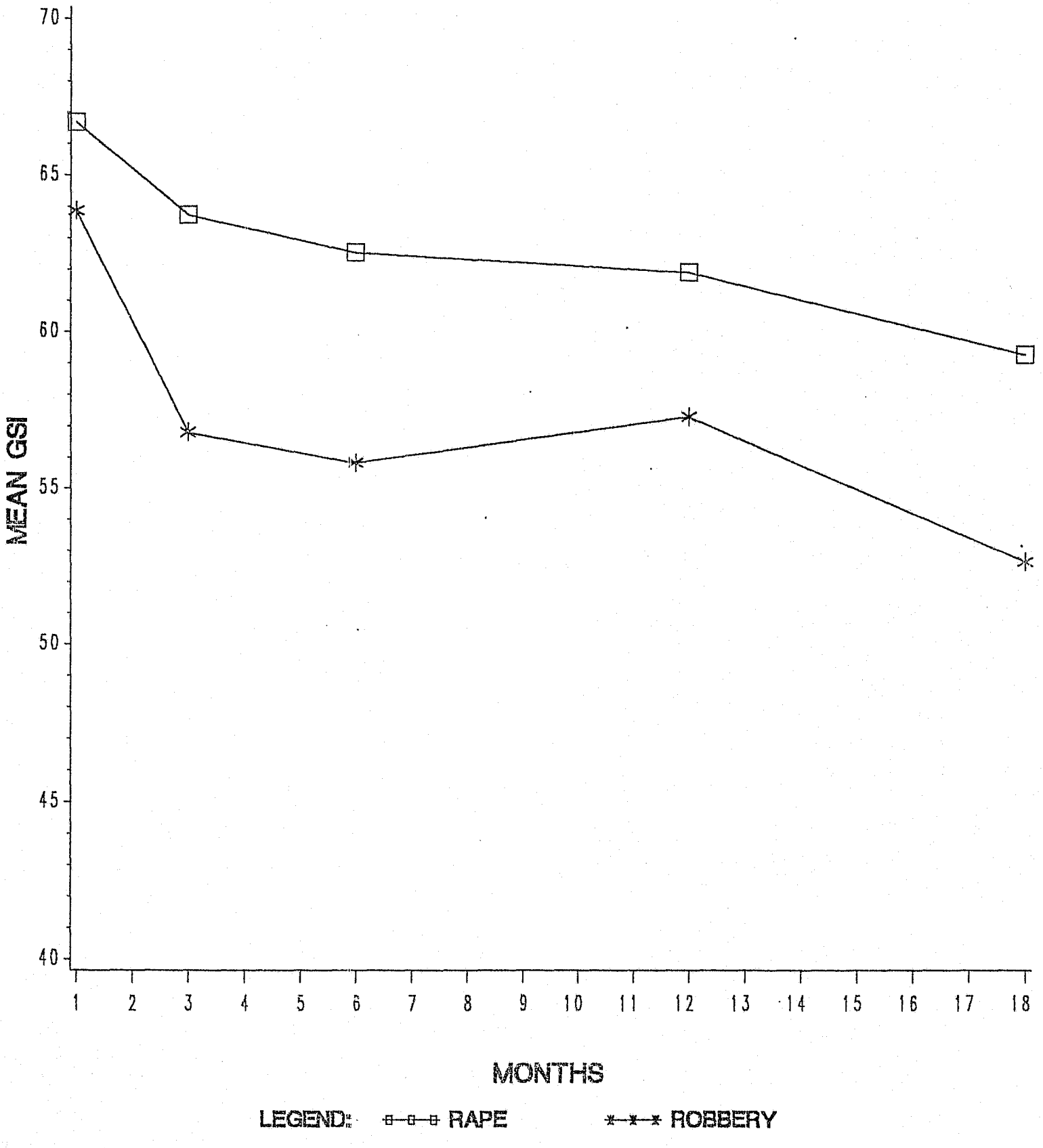

Figure 2. Mean TSCS (Tennessee Self-Concept Scale) scores of femaale rape and robbery victims: Cross-sectional sample.

FEMALE RAPE VS FEMALE ROBBERY
CROSS SECTIONAL SAMPLE

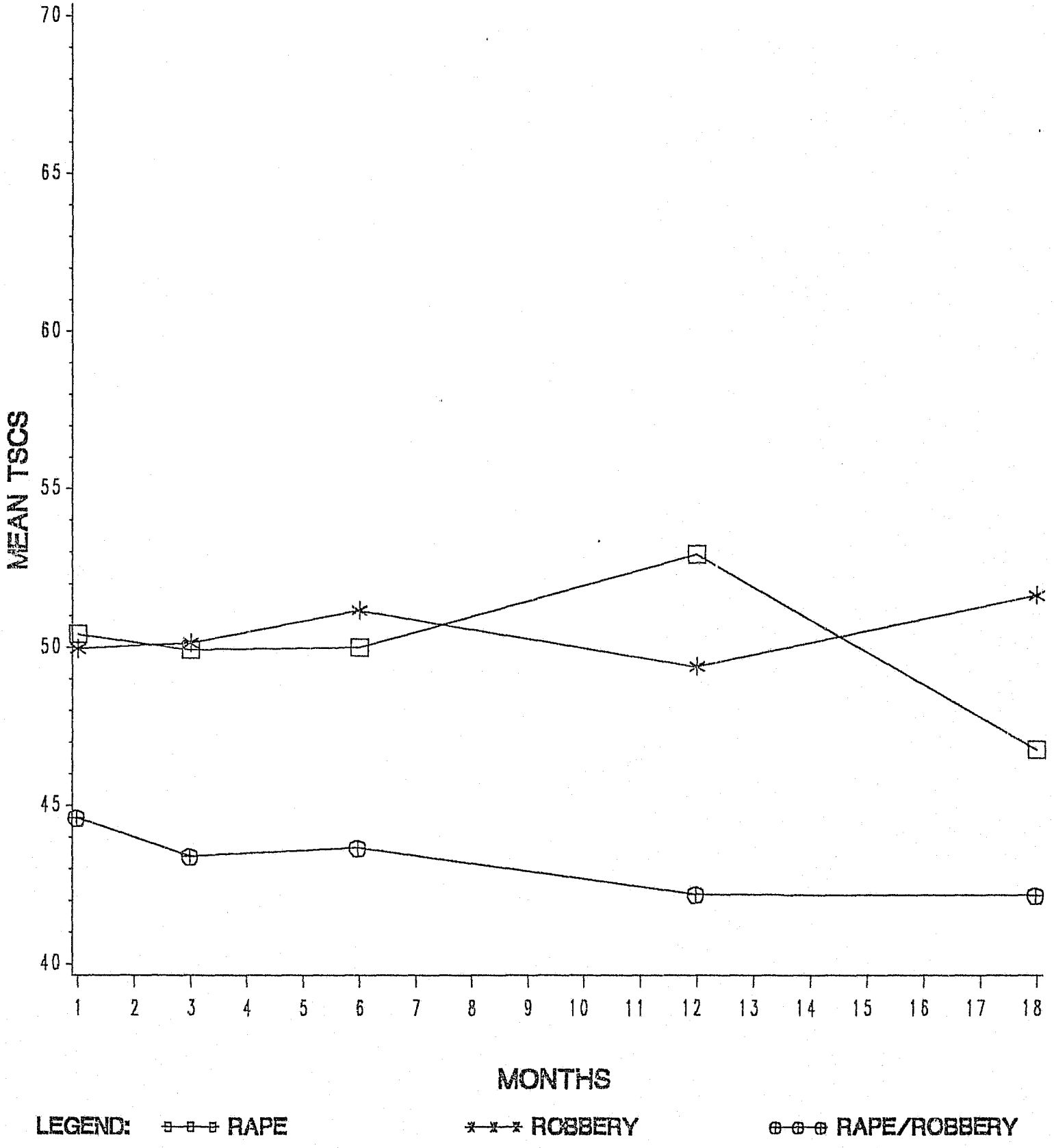

Figure 3. Mean MFS (Modified Fear Survey) scores of female rape and robbery victims: Cross-sectional sample.

FEMALE RAPE VS FEMALE ROBBERY
CROSS SECTIONAL SAMPLE

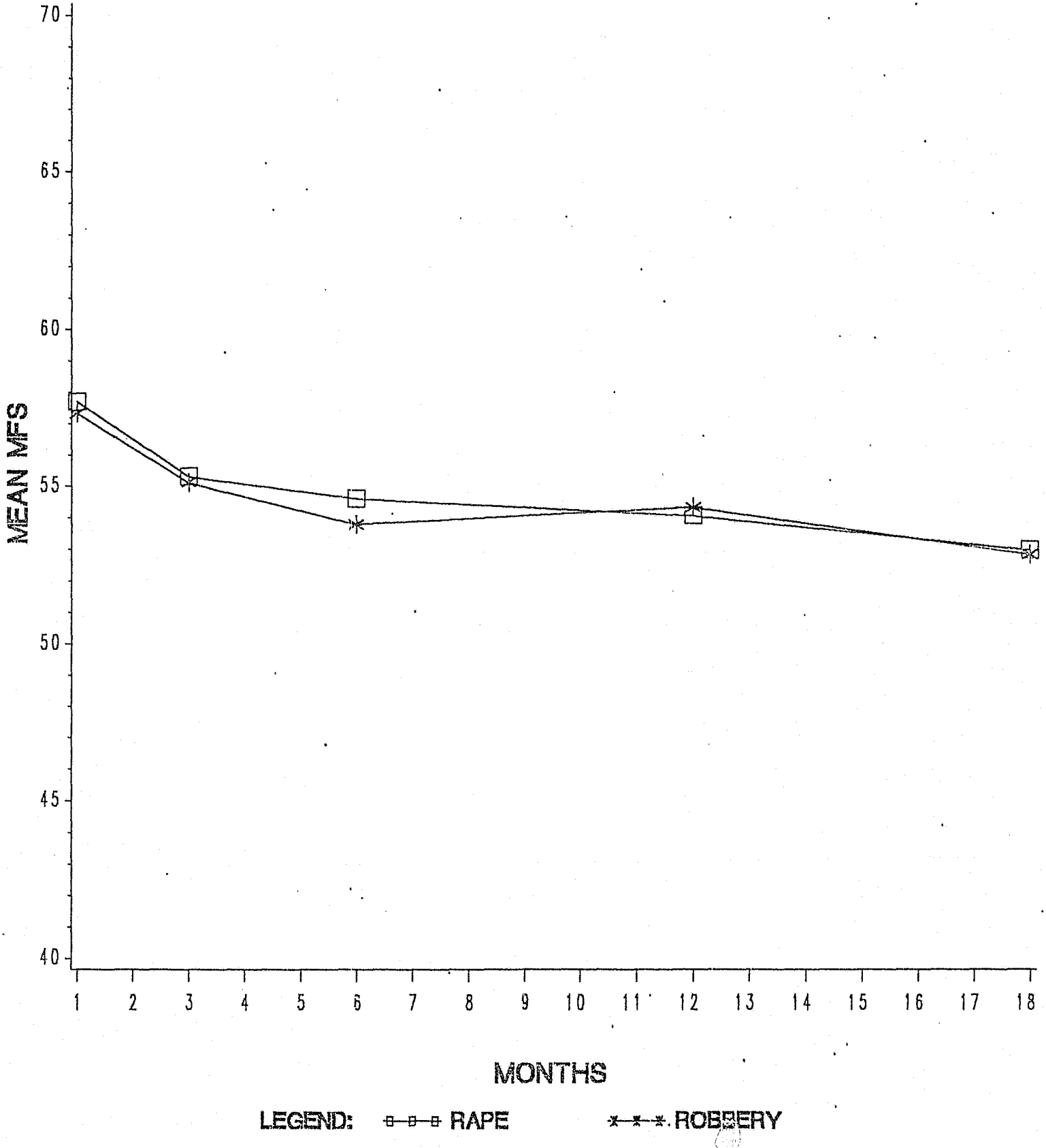

Figure 4. Mean IES (Impact of Event Scale) scores of female rape and robbery victims: Cross-sectional sample.

FEMALE RAPE VS FEMALE ROBBERY
CROSS SECTIONAL SAMPLE

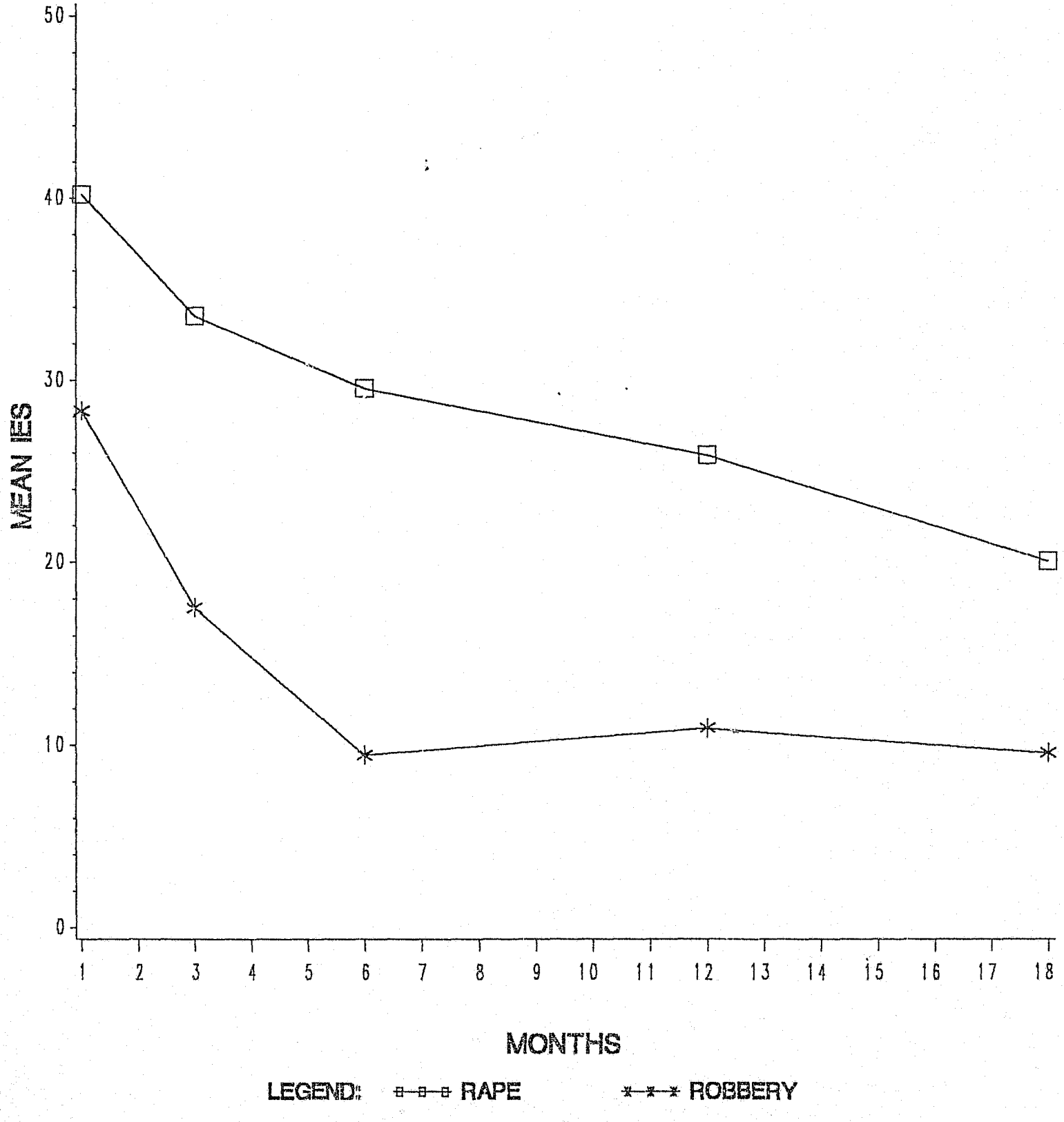

Figure 5. Mean GSI (Global Severity Index) scores of female and male robbery victims: Cross-sectional sample. (Individual data points indicate single-test samples).

FEMALE ROBBERY VS MALE ROBBERY
CROSS SECTIONAL SAMPLE

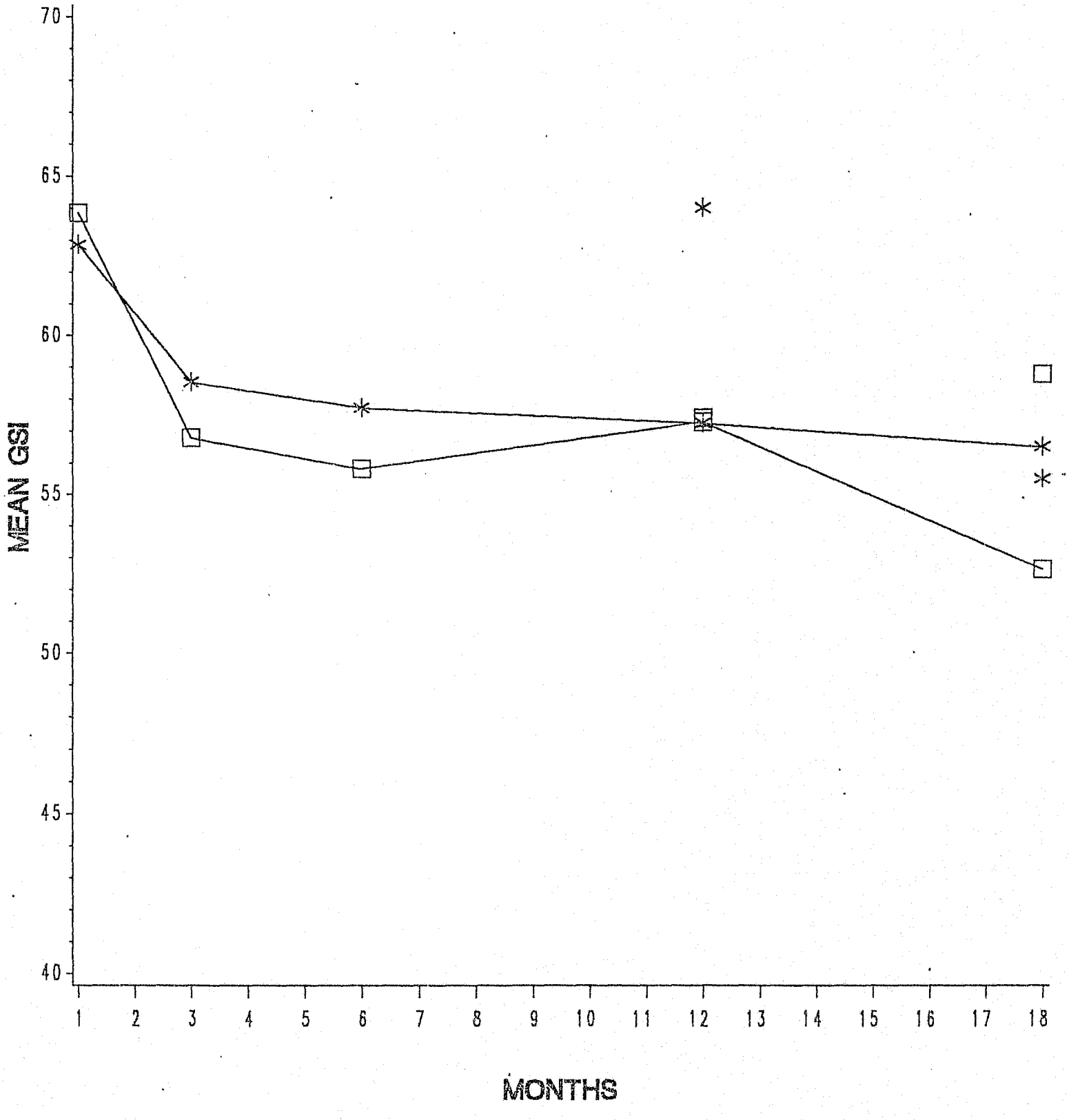

Figure 6. Mean TSCS (Tennessee Self-Concept Scale) scores of female and male robbery victims: Cross-sectional sample. (Individual data points indicate single-test samples).

FEMALE ROBBERY VS MALE ROBBERY
CROSS SECTIONAL SAMPLE

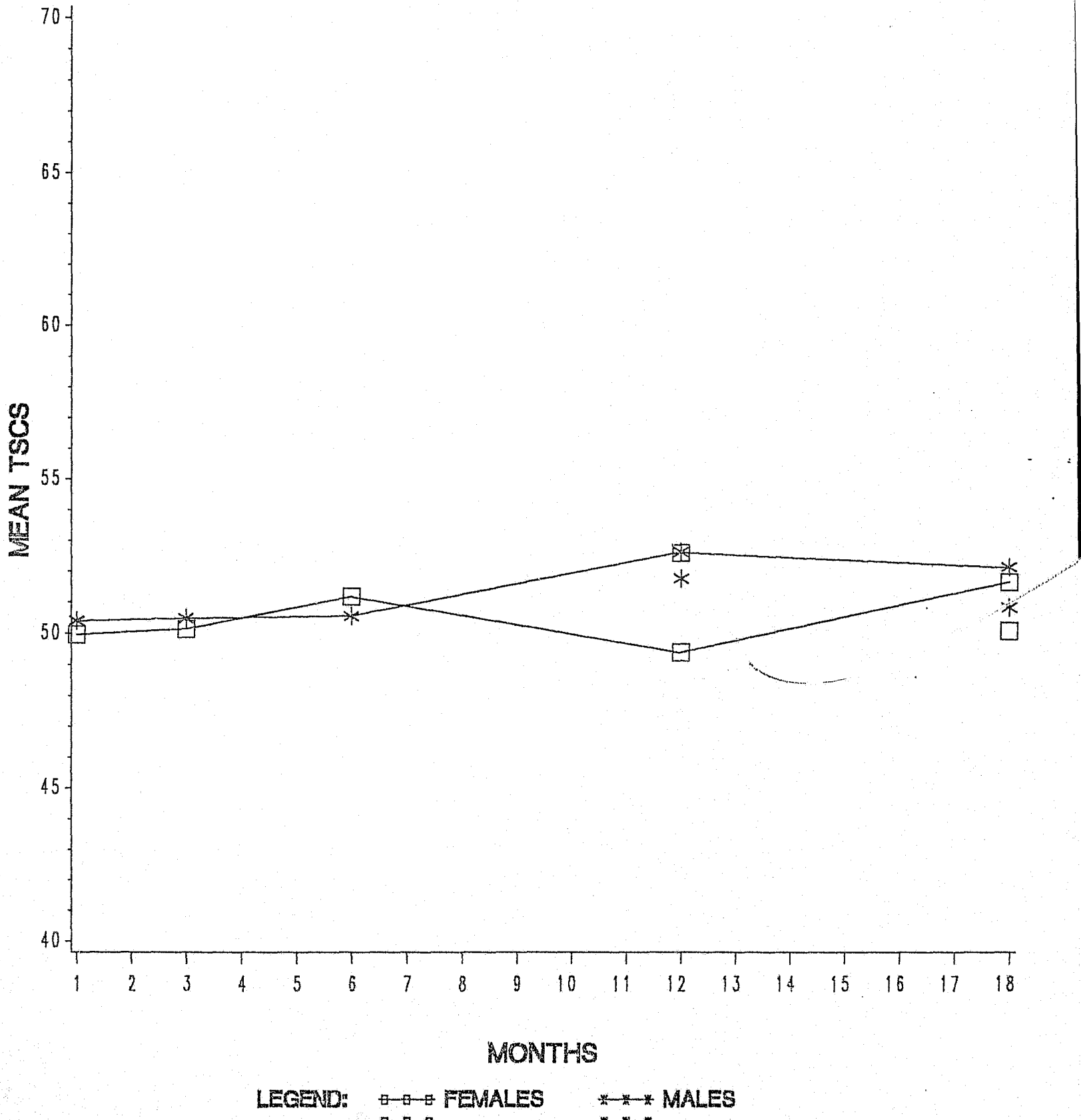

Figure 7. Mean MFS (Modified Fear Survey) scores of female and male robbery victims: Cross-sectional sample. (Individual data points indicate single-test samples).

FEMALE ROBBERY VS MALE ROBBERY
CROSS SECTIONAL SAMPLE

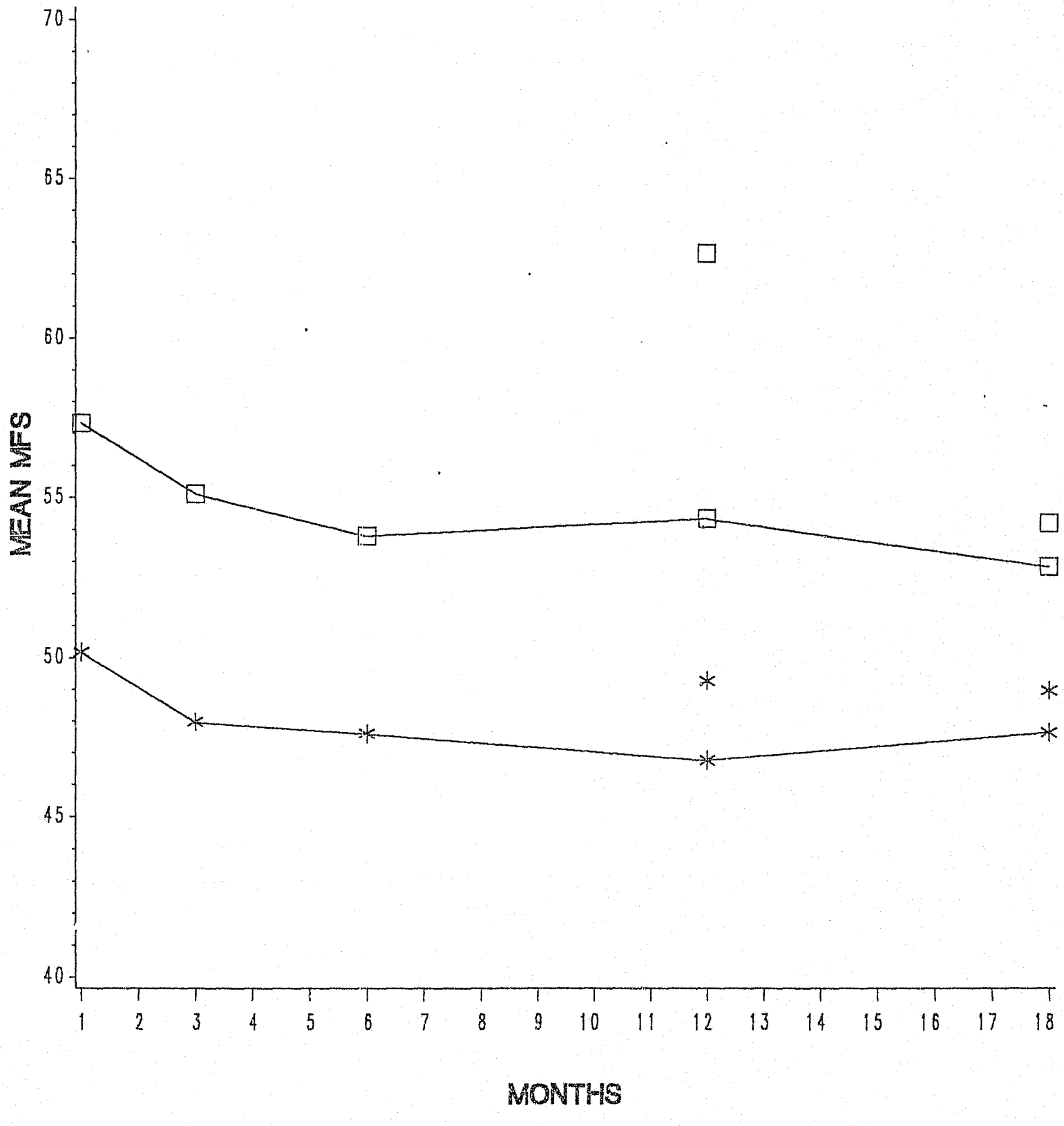

Figure 8. Mean IES (Impact of Event Scale) scores of female and male robbery victims: Cross-sectional sample. (Individual data points indicate single-test samples).

FEMALE ROBBERY VS MALE ROBBERY
CROSS SECTIONAL SAMPLE

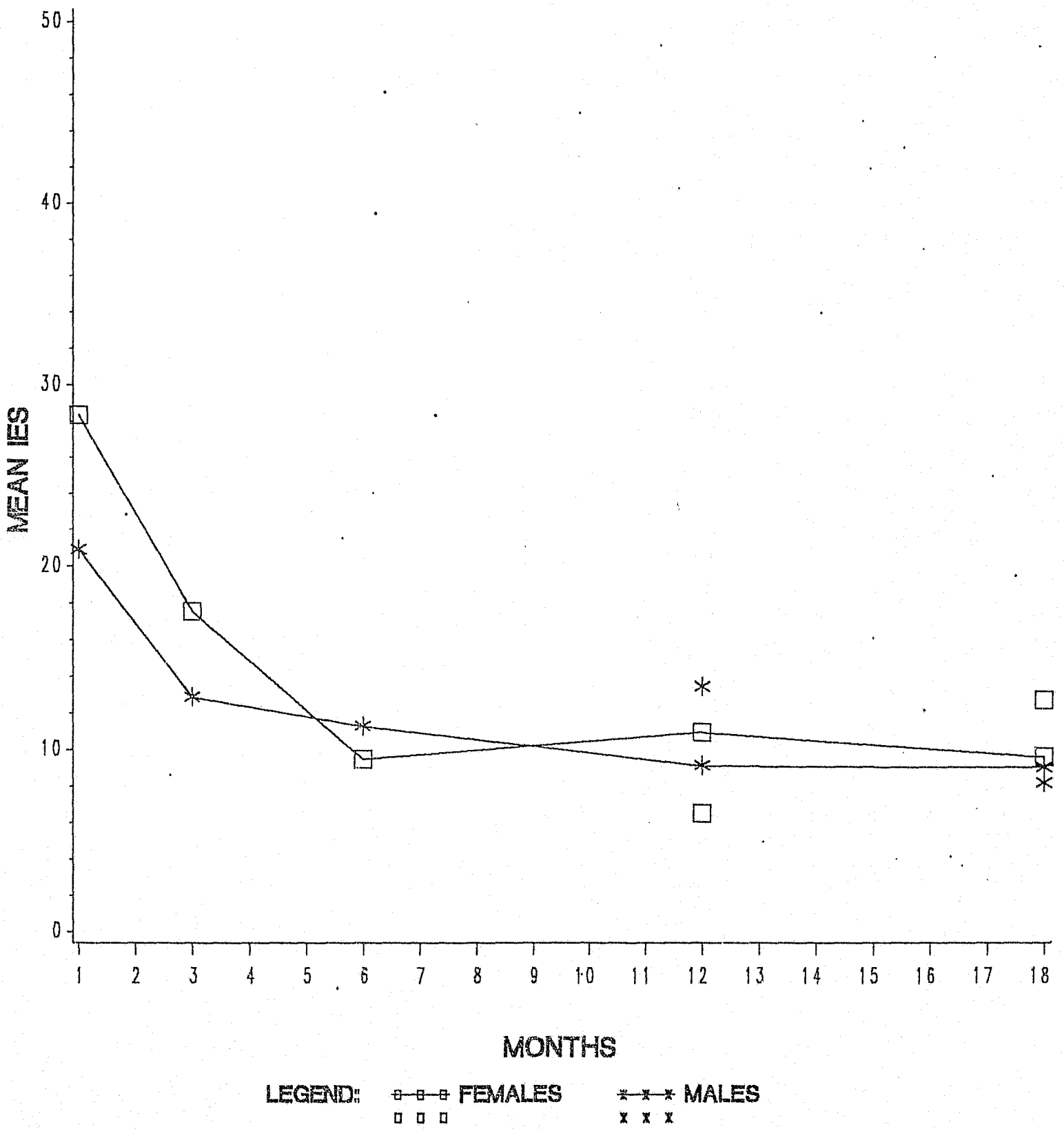

Figure 9. Mean GSI (Global Severity Index) scores of female rape and robbery victims: Longitudinal sample.

FEMALE RAPE VS FEMALE ROBBERY
LONGITUDINAL SAMPLE

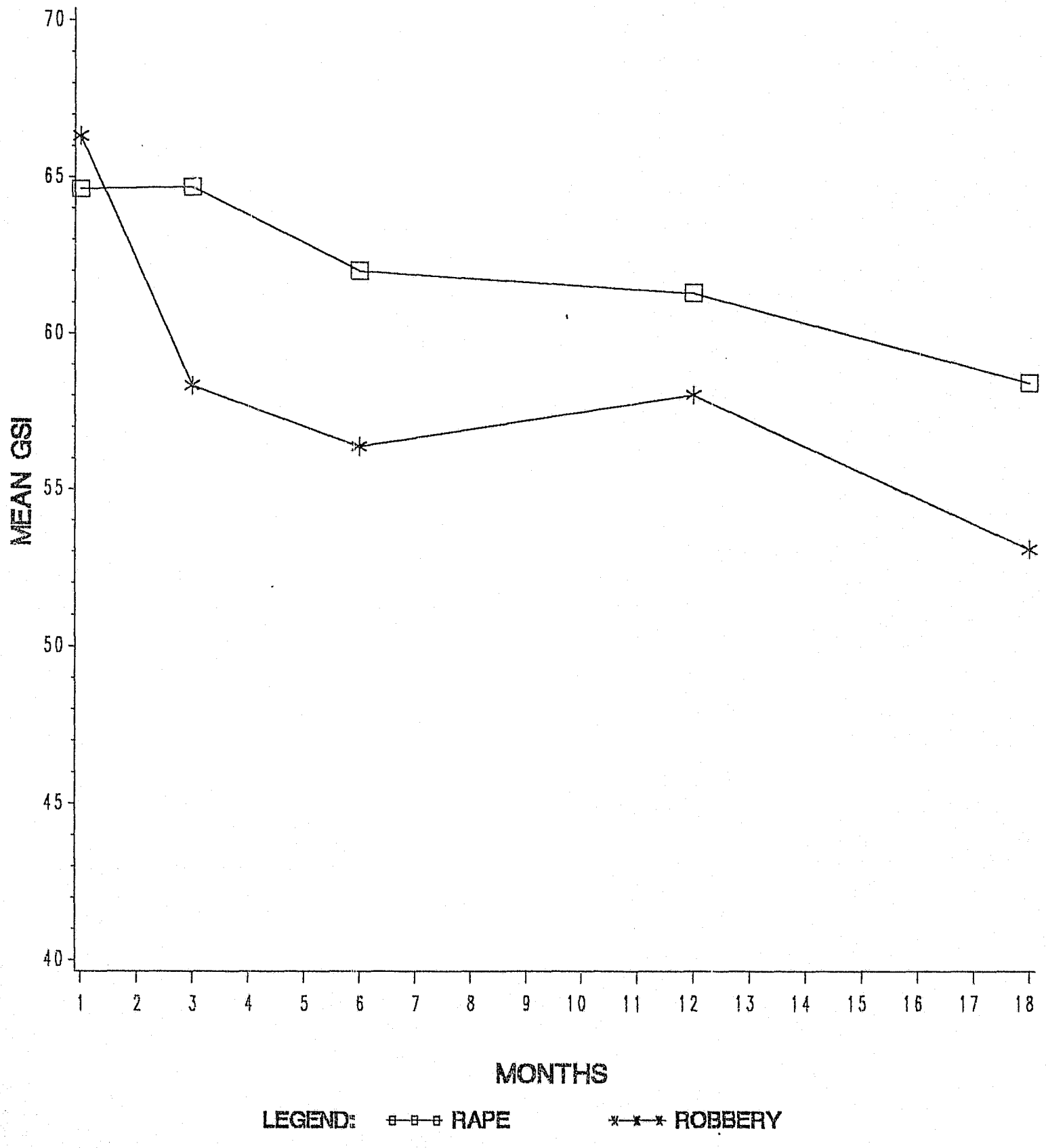

Figure 10. Mean TSCS (Tennessee Self-Concept Scale) scores of female rape and robbery victims: Longitudinal sample.

FEMALE RAPE VS FEMALE ROBBERY
LONGITUDINAL SAMPLE

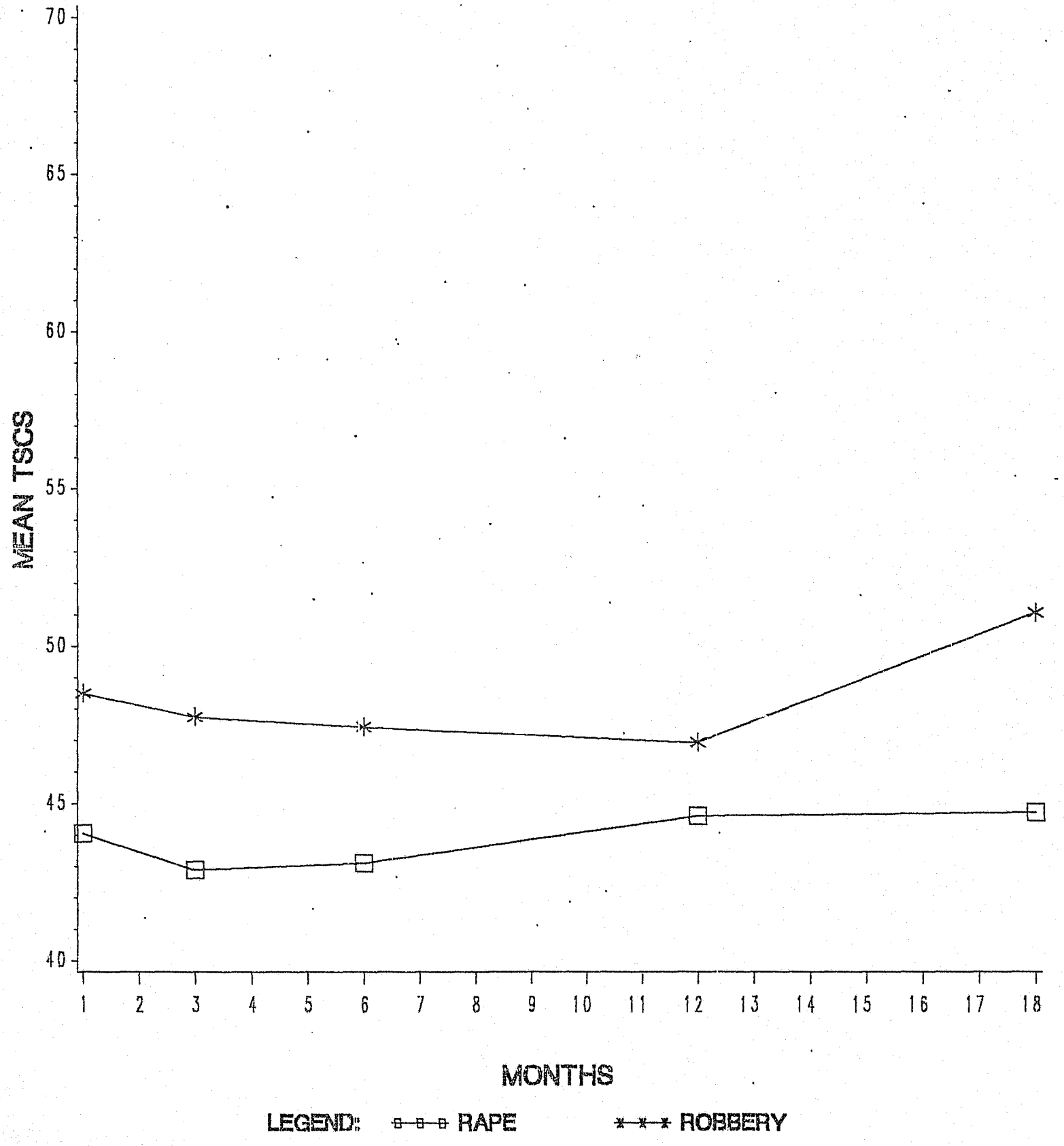

Figure 11. Mean MFS (Modified Fear Survey) scores of female rape and robbery victims: Longitudinal sample.

FEMALE RAPE VS FEMALE ROBBERY
LONGITUDINAL SAMPLE

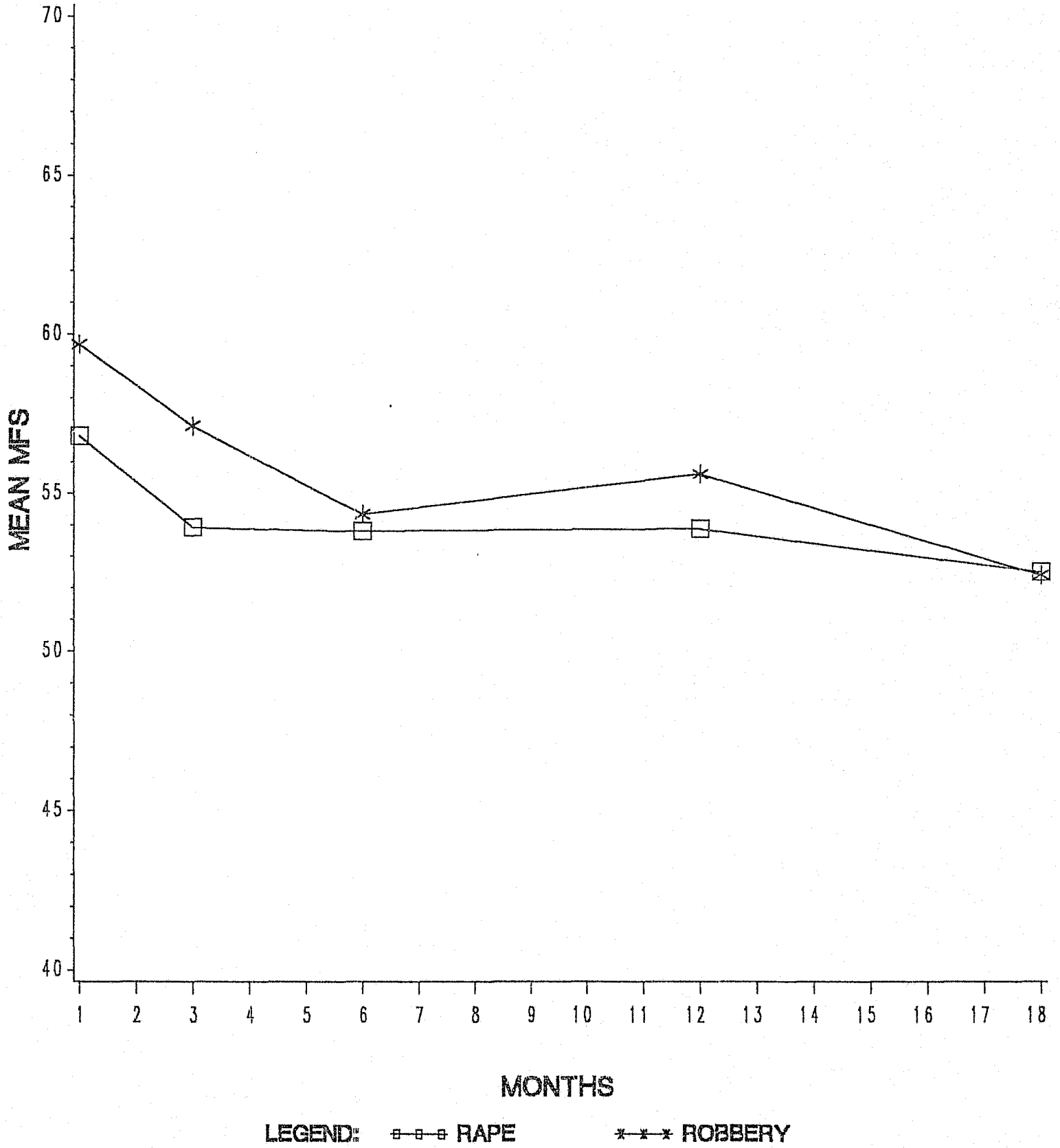

Figure 12. Mean IES (Impact of Event Scale) scores of female rape and robbery victims: Longitudinal sample.

FEMALE RAPE VS FEMALE ROBBERY
LONGITUDINAL SAMPLE

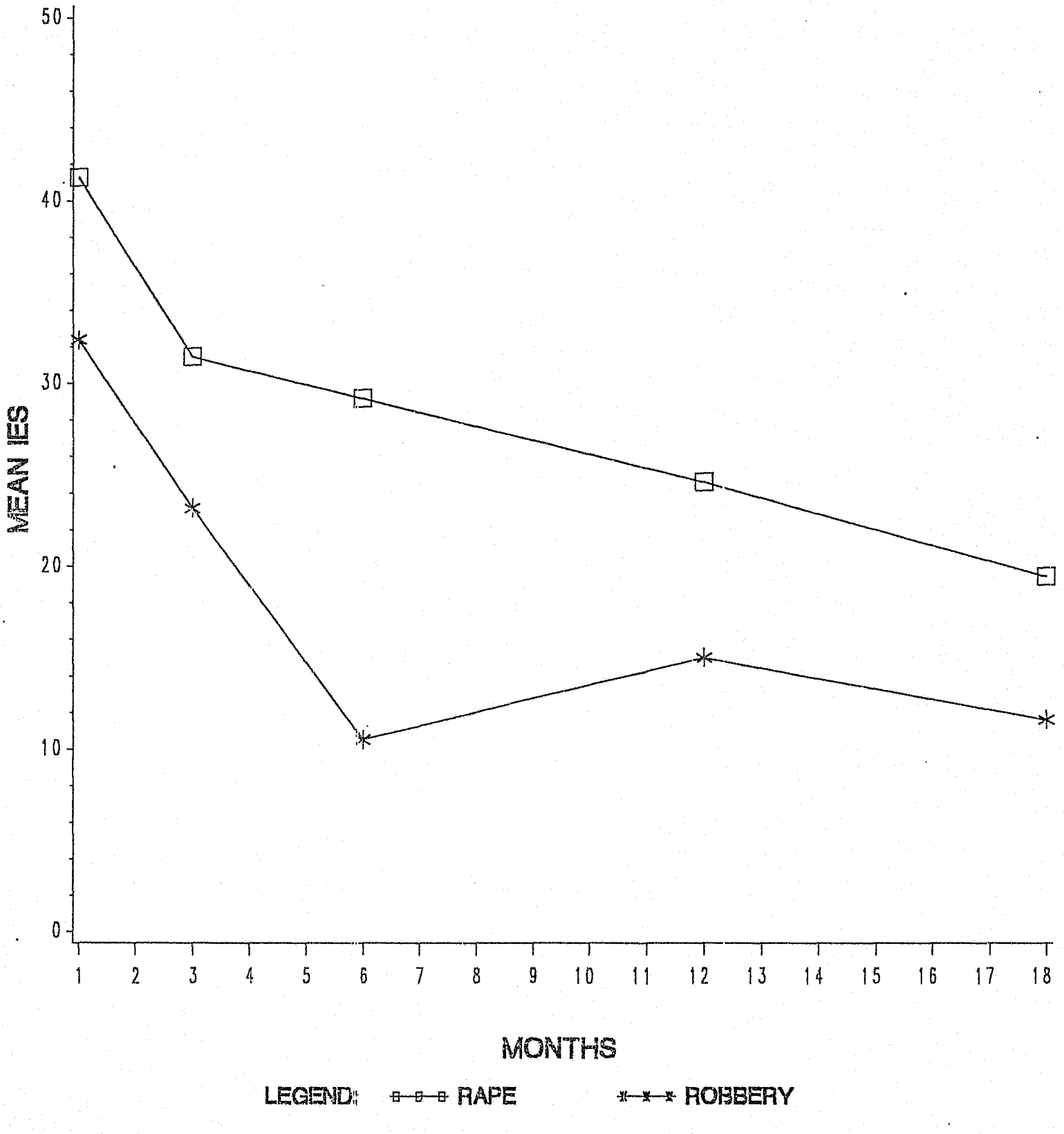

Figure 13. Mean GSI (Global Severity Index) scores of female and male robbery victims: Longitudinal sample.

FEMALE ROBBERY VS MALE ROBBERY
LONGITUDINAL SAMPLE

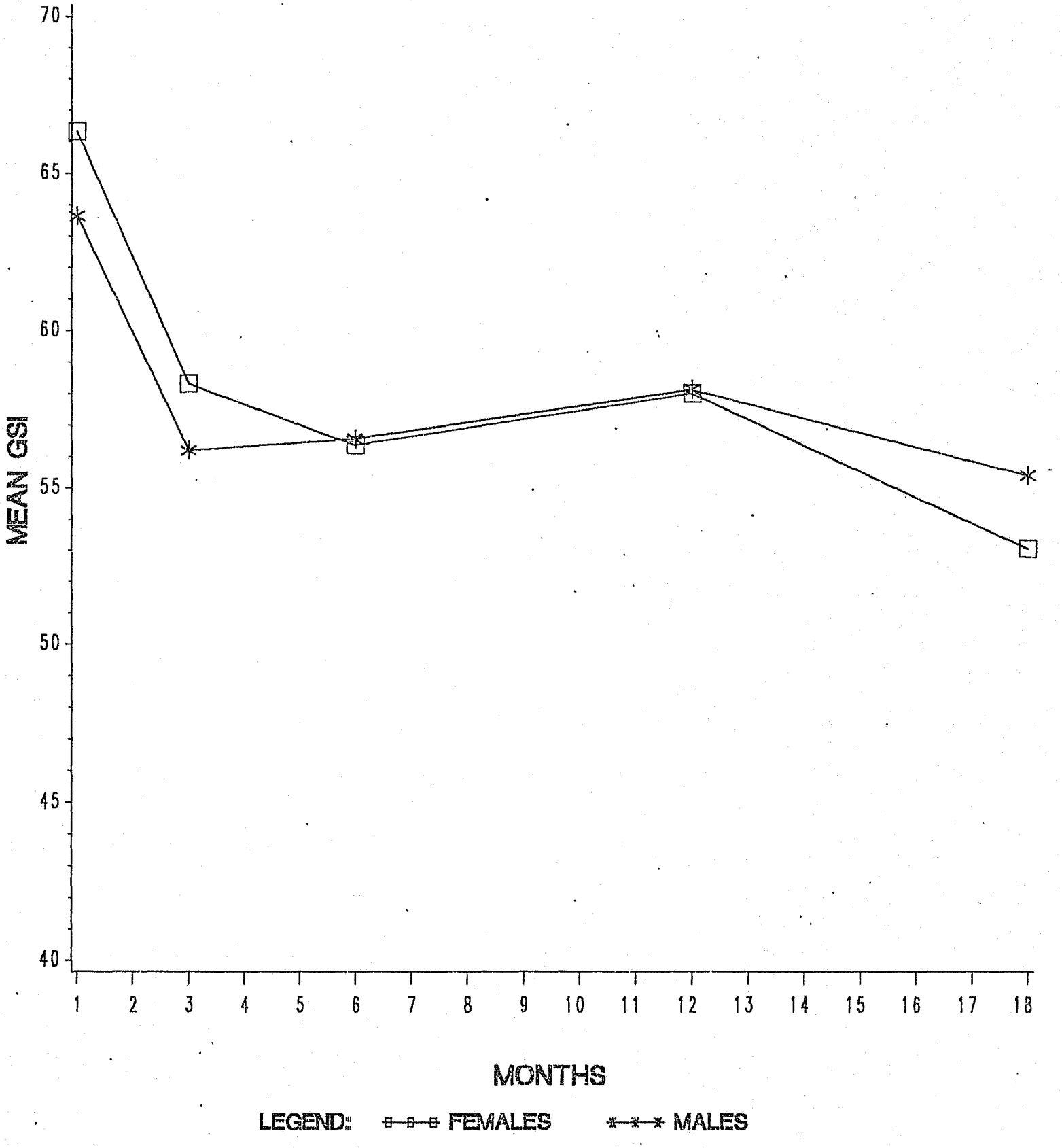

Figure 14. Mean TSCS (Tennessee Self-Concept Scale) scores of female and male robbery victims: Longitudinal sample.

FEMALE ROBBERY VS MALE ROBBERY
LONGITUDINAL SAMPLE

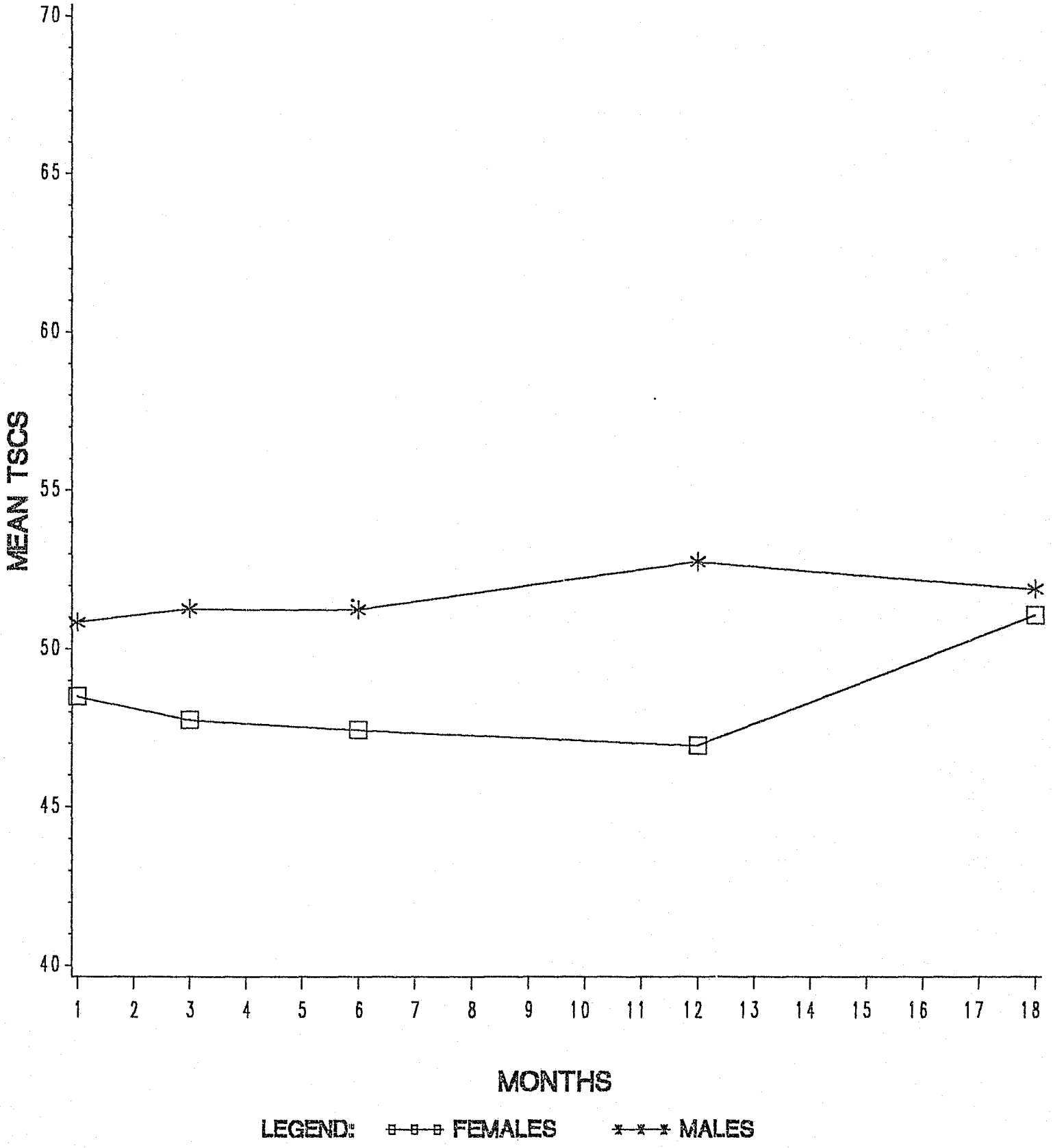

Figure 15. Mean MFS (Modified Fear Survey) scores of female and male robbery victims: Longitudinal sample.

FEMALE ROBBERY VS MALE ROBBERY
LONGITUDINAL SAMPLE

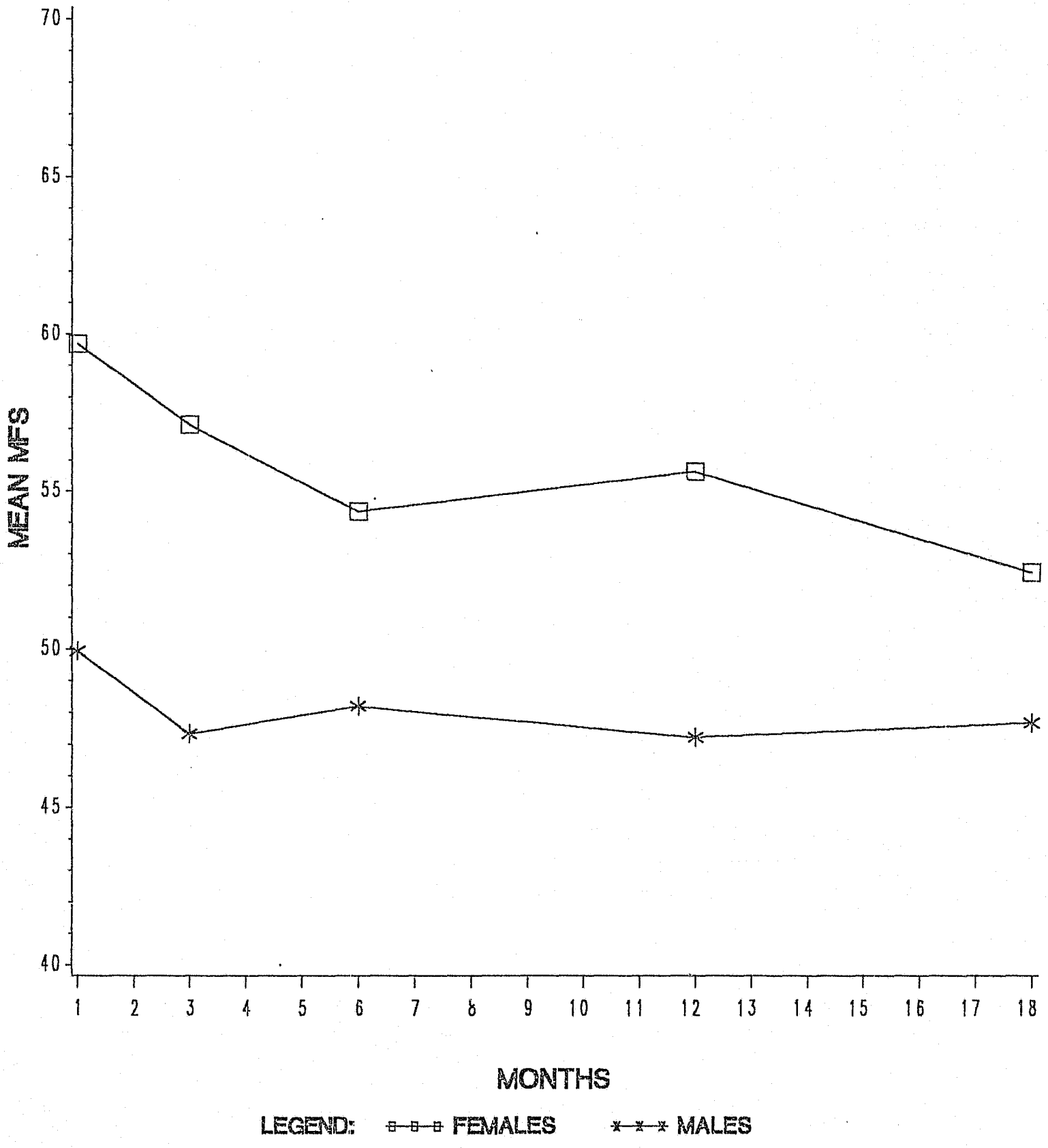

Figure 16. Mean IES (Impact of Event Scale) scores of female and male robbery victims: Longitudinal sample.

FEMALE ROBBERY VS MALE ROBBERY
LONGITUDINAL SAMPLE