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Treatment of Acute Posttraumatic Stress Disorder in Rape Victims: An Experimental Study

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Abstract — The aim of this study was to test the comparative effectiveness of two therapeutic modalities of 5 one-hr sessions [(a) cognitive restructuring and specific coping-skills training and (b) progressive relaxation training] in the treatment of acute posttraumatic stress disorder in victims of sexual aggression. The sample consisted of 20 patients selected according to *DSM-III-R* criteria. A two-group experimental design with repeated measures (pretreatment, posttreatment, and 1-, 3-, 6-, and 12-month follow-up) was used. Most treated patients improved in all measures immediately upon postreatment and in follow-up. There were no differences between the two modalities in the posttreatment. However, in the 12-month follow-up the first group produced superior outcome in PTSD symptoms, but not in other measures. Implications of this study for clinical practice and future research in this field are discussed.

According to the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV*; American Psychiatric Association, 1994), posttraumatic stress disorder arises when a person involved in a traumatic event has suffered some threat to his or her physical and/or psychological well-being and has experienced a very intense emotional reaction of fear, horror, or helplessness. Symptoms involve cognitive and emotional reexperience of the event, behavioral and cognitive avoidance of what took place, and autonomic hyperarousal. All of this leads to significant interference in one's social and professional adaptation, a lack of interest in what one would have previously considered attractive or pleasurable, and a general numbing of emotional capability for holding and expressing feelings of intimacy and tenderness (Echeburúa & Corral, 1994).

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Fifteen to twenty percent of women are affected by sexual aggression at some point in their lives; among them, more than 50% — up to 70% according to the study by Bownes, O'Gorman, and Sayers (1991) — experience posttraumatic stress disorder according to the diagnostic criteria established by the *DSM-IV* (APA, 1994). Certainly, they constitute the group most affected by this syndrome (Kilpatrick, Saunders, Veronen, Best, & Von, 1987; Resnick, Kilpatrick, Best, & Kramer, 1992). Given this large number of victims of sexual aggression suffering from posttraumatic stress disorder, a fine-tuning of efficacious intervention programs is needed.

Kilpatrick's group (Kilpatrick & Veronen, 1983) has designed a brief cognitive-behavioral intervention program, lasting 4 to 6 hr in two sessions and using the following strategies: abreaction, an explanation of the reactions of fear and anxiety according to the theory of learning, cognitive restructuring of feelings of guilt, and coping-skills training (assertive behavior, relaxation, self-instructions, etc.) in order to return to daily life and confront the most immediate problems. Results obtained with this program among 10 recent victims of rape were not superior to those of the control group (made up of untreated rape victims), indicating the need for more research.

In the study by Frank et al. (1988), 42 rape victims were assigned, within the first 4 weeks after the incident, either to a systematic desensitization group or to a cognitive restructuring group. In both groups there was significant improvement, with no differences between the two groups; however, this study did not include a control group, nor did it assign victims randomly to the therapeutic modalities. Thus, the effect of the mere passage of time was not taken into account. Passage of time can be a significant variable; in fact, substantial improvement among victims left untreated is usually noted between the first and third months after the incident (Kilpatrick, Veronen, & Resick, 1979).

The two controlled studies of recent victims of rape that have been published up to this point have methodological problems. In one case (Kilpatrick & Veronen, 1983), the period of follow-up was brief (3 months); in both cases (Frank et al., 1988; Kilpatrick & Veronen, 1983) the results were inconclusive. In addition, neither of these two studies evaluated posttraumatic stress disorder directly but, instead, evaluated the indirect symptoms associated with rape (anxiety and fears, depression, sexual dysfunction, etc.). Evaluation of posttraumatic stress disorder in recent victims of sexual aggression has been the object of study in only a few cases to date (Alario, 1992; Sarasua, Echeburúa, & Corral, 1993).

At this point in time, no modality of treatment has been proven superior to any other or has even been shown to accelerate the normal course of recovery in the first 3 months after the sexual aggression, nor has the relative efficacy of each one of the components that make up these programs been determined (Corral, Echeburúa, Sarasua, & Zubizarreta, 1992; Echeburúa, Corral, Sarasua, & Zubizarreta, 1990).

The principal aim of this study was to compare two therapeutic programs — cognitive restructuring and specific coping-skills training on the one hand and

progressive muscular relaxation training on the other — in long-term (one-year) treatment of acute posttraumatic stress disorder in victims of sexual aggression.

In the selection of treatments tested, the following criteria were taken into account: they are brief psychological therapies, each has a sound theoretical background, and none has sufficient empirical support in its application to this disorder.

With respect to the type of outcome measures used, a scale has been designed for specific evaluation of posttraumatic stress disorder, similar to that used in other studies of victims of not-so-recent sexual aggression (Foa, Rothbaum, Riggs, & Murdock, 1991; Kusher, Riggs, Foa, & Miller, 1992; Resick & Schnicke, 1992). Likewise, other self-reports have been used to evaluate different psychopathological variables associated with this disorder (depression, anxiety and fears, and inadaptation).

METHOD

Subjects

The sample of subjects for this study was composed of victims of sexual aggression seeking psychological treatment at the Psychological Counseling Centers for Women of the Basque Country (San Sebastián, Bilbao, and Vitoria, Spain) from April 1989 to March 1993.

Criteria for admission to the study were as follows: subjects (a) had to have experienced some form of sexual aggression, (b) had to meet the diagnostic criteria for posttraumatic stress disorder according to *DSM-III-R* (APA, 1987), (c) had not surpassed a period of 3 months since the time of the aggression, (d) were not suffering from an organic illness or a mental disorder of a severe nature. The goal of the study, then, was to attempt to form a homogeneous group of patients who were suffering from acute PTSD and who were not affected by other syndromes.

After screening 31 patients who sought treatment for sexual assault in the therapeutic program during this time frame, the sample of victims selected was composed of 20 subjects. The reasons for leaving the other 11 women out of the study were the following: (a) five were suffering from a mental disorder of a severe nature (mainly, schizophrenia, mental deficiency, or major depression); (b) three manifested posttraumatic stress disorder for less than one month, thus not meeting the diagnostic criteria of the *DSM-III-R* (APA, 1987); (c) two did not suffer from posttraumatic stress disorder; and(d) the alleged rape of one was held in doubt.

Regarding the most significant demographic characteristics of the sample selected (Table 1), the victims were young women, with an average age of 22 (SD = 6.9), almost all of them single students. Concerning the type of aggression suffered, in half of the cases it was consummated rape, with physical injury and the use of some type of weapon on the part of the aggressor, who, in almost all of the cases, was a stranger to the victim. This latter fact explains

TABLE 1
DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE AND VARIABLES RELATED TO SEXUAL AGGRESSION

	Total ($N = 20$)	Group A ($N = 10$)	Group B ($N = 10$)
	N (%)	*N* (%)	*N* (%)
Age Mean	22	24	20
(Range)	(15–45)		
Marital status			
Married	3 (15%)	2 (20%)	1 (10%)
Single	17 (85%)	8 (80%)	9 (90%)
Level of education			
Elementary school	5 (25%)	1 (10%)	4 (40%)
Vocational school	6 (30%)	4 (40%)	2 (20%)
High school	6 (30%)	3 (30%)	3 (30%)
College graduation	3 (15%)	2 (20%)	1 (10%)
Average time in weeks since the rape	5	5.5	5
(Range)	(4–13)		
Type of aggression			
Rape	11 (55%)	5 (50%)	6 (60%)
Vaginal	7 (35%)	3 (30%)	4 (40%)
Anal	2 (10%)	1 (10%)	1 (10%)
Oral	2 (10%)	1 (10%)	1 (10%)
Attempted rape	9 (45%)	5 (50%)	4 (40%)
Physical lesions	8 (40%)	3 (30%)	5 (50%)
Use of weapons	11 (55%)	5 (50%)	6 (55%)
Relationship to the perpetrator			
Acquaintance	1 (5%)	1 (10%)	—
Stranger	19 (95%)	9 (90%)	10 (100%)
Charges pressed	17 (85%)	7 (70%)	10 (100%)
Previous sexual experience	11 (55%)	6 (60%)	5 (50%)

Note. Group A: Cognitive restructuring and specific coping-skills training. Group B: Progressive muscular relaxation training.

the high rate of criminal charges pressed (85% of the total) by the women in this study. It is more highly probable that victims accosted by strangers press charges (Echeburúa, Corral, Zubizarreta, Sarasua, & Páez, 1993).

It is especially significant, from the point of view of the psychological impact, that 45% of the victims had not had previous sexual relations, the rape constituting their first sexual experience.

Experimental Design

The experimental strategy used was a two-group design with repeated measures. Assessment of all the victims was carried out in pretreatment and post-treatment, and in the 1-, 3-, 6-, and 12-month follow-ups.

Assignment of patients to one of the two experimental conditions was carried out randomly in order of arrival at the Psychological Counseling Centers for Women. The two therapeutic modalities used were the following: (a) cognitive restructuring and specific coping-skills training and (b) progressive muscular relaxation training.

A control group of untreated or waiting-list patients was not used in this study, for several reasons. Primarily, to assign victims in an acute phase of posttraumatic stress to such a group is ethically unsound. Second, it is very difficult to keep patients motivated to submit themselves to repeated assessments when they are not receiving any therapeutic intervention. Third, the mere repeated application of assessment tools is, in and of itself, therapeutic and tends to facilitate a regression towards the mean (Atkeson, Calhoum, Resick, & Ellis, 1982). Fourth, the context in which this study was developed — the Psychological Counseling Centers for Women sponsored by the Social Services of the Municipal and State governments — made it impossible to set patients aside for an untreated or waiting-list control group.

Assessment Measures

Interviews. A structured interview was carried out, based on the Scale of Severity of Posttraumatic Stress Disorder Symptoms (Echeburúa, Corral, Sarasua, Zubizarreta, & Sauca, 1989). This interview assesses the symptoms and the intensity of the posttraumatic stress disorder according to the diagnostic criteria of the *DSM-III-R* (APA, 1987).

This scale, following a Likert-type format of 0 to 3 according to the frequency and intensity of the symptoms, is made up of 17 items, four of which refer to reexperience symptoms, 7 to avoidance, and 6 to autonomic arousal. The range is from 0 to 51 on the global scale, from 0 to 12 on the subscale of reexperience, from 0 to 21 on the subscale of avoidance, and from 0 to 18 on the subscale of arousal.

Diagnosis of posttraumatic stress disorder requires a minimum global score of 12, with a distribution of 2 points on the scale of reexperience (at least one symptom is required), 6 on the avoidance scale (three symptoms are required), and 4 on the autonomic arousal scale (2 symptoms).

This scale has high internal consistency (alpha = .98) and good test-retest reliability ($r = .94$).

Assessment of other associated psychopathological symptoms. In addition to measuring posttraumatic stress disorder symptoms, other psychopathological indicators usually associated with sexual aggression were assessed: fears, anxiety, depression, and inadaptation to daily life. The instruments used have proven to be very sensitive to therapeutic change.

The Modified Fear Survey (MFS–III; Veronen & Kilpatrick, 1980), based on the Survey of Fears by Wolpe and Lang (1964), includes a specific subscale of 45 items of fears related to rape, and is the one used in this study. It is structured

according to a Likert-type format (from 1 to 5) as a function of the level of discomfort produced by each situation. The total range for this subscale is from 45 to 225. The test-retest reliability ranges from .60 to .74 with a 2.5-month interval. The internal consistency ranges from .81 to .94. From the point of view of discriminatory validity, this tool distinguishes adequately between victims and nonvictims during a period of at least 3 years after the rape (Kilpatrick & Veronen, 1984).

The Scale of Adaptation (Echeburúa & Corral, 1987) reflects the degree to which sexual aggression affects different areas of daily life: work, social life, free time, relationship with one's partner, and relationship with one's family. This instrument, with six items that range from 1 to 6 on a Likert-type scale, also includes a global subscale that reflects the degree of global inadaptation to daily life. The range of the total scale is from 6 to 36 (the higher the score, the greater the degree of inadaptation).

Also used were the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and the State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970) in order to evaluate the depression and the anxiety, respectively.

Therapeutic Modalities

Cognitive restructuring and specific coping-skills training (5 one-hr sessions). Cognitive restructuring focuses, in the first place, on explaining the normal reactions to sexual aggression and the process of acquisition and maintenance of fears (Foa, Steketee, & Rothbaum, 1989). Secondarily, it also deals with modifying negative thoughts associated with rape, as well as the potential feelings of guilt related to what the victim could have done and did not do, substituting such thoughts with more adaptive ones. Finally, the traumatic event is resituated in its appropriate dimensions, and positive aspects of the new situation are pointed out.

Specific coping-skills training includes progressive muscular relaxation (according to the method proposed by Bernstein & Borkovec, 1973), thought-stopping, cognitive distractions (such as reductive techniques on intrusive thoughts), and finally instruction in gradual exposure in order for the patient to resume her habitual activities.

Progressive muscular relaxation training (5 one-hour sessions). After some general instruction about the psychological impact consequent to sexual aggression, the victim receives training in progressive muscular relaxation (according to the method proposed by Bernstein & Borkovec, 1973).

Procedure

The program of assessment and treatment, designed by the investigators together with the therapist, was tested with a sample of five patients before commencing with the study itself.

Assessment. First, a selection interview was carried out based on the *DSM-III-R* diagnostic criteria. Victims who met all admission criteria were assigned randomly to one of the two experimental conditions, according to their order of arrival at the Psychological Counseling Centers. For ethical reasons, the patients who were excluded from the study also received therapeutic attention but were not included in the experimental modalities.

Assessment tools were administered to the selected subjects in pretreatment, and the content of the therapy was explained to them. The ensuing evaluations — always within the framework of a personal interview with the therapist — took place in posttreatment and in the 1-, 3-, 6-, and 12-month follow-ups.

Treatment. The therapist who carried out the assessment and treatment of all patients — the third author of this paper — is a clinical psychologist with 5 years experience in cognitive-behavioral treatment of victims of sexual aggressions.

The general characteristics of the therapeutic procedure in each one of the clinical modalities are set forth in Table 2.

RESULTS

The total sample comprised 20 patients, 10 of whom were assigned to each one of the therapeutic modalities. The intensity of posttraumatic stress disorder in the subjects of this study was high. The mean score on the Scale of Severity of Posttraumatic Stress Disorder Symptoms was 35.5 ($SD = 7.96$).

The distribution of the sample followed a normal curve. Before treatment the two groups were homogeneous in demographic variables and psychopathological measures. Specifically, on the Scale of Severity of Posttraumatic Stress Disorder Symptoms — the central measure of the syndrome — $t = 0.66$ (*ns*). There were no refusals of treatment or dropouts from the program.

The type of sexual aggression (rape/non-rape) shows an insignificantly low correlation with the seriousness of the posttraumatic stress disorder ($r = .14$).

Between-Group Analysis

In this study, we understand therapeutic success to be the disappearance of posttraumatic stress disorder according to the diagnostic criteria of the

TABLE 2
CHARACTERISTICS OF THERAPEUTIC MODALITIES

Treatment	Modality	Duration	Weekly Sessions	Total Hours
Cognitive restructuring and specific coping-skills training	Individual	5 weeks	1	5
Progressive muscular relaxation training	Individual	5 weeks	1	4.15

DSM-III-R. From a categorical point of view, the results obtained with the two modalities of treatment are satisfactory, but there exist no significant differences between the two in any of the periods of assessment (Table 3).

From a dimensional point of view — the degree of global intensity of posttraumatic stress disorder symptoms, which allows for more subtle analysis than the categorical analysis — there are slight differences in tendencies in the posttreatment and in the 1- and 6-month follow-ups, and there are significant differences in the 12-month follow-up ($t = 2.30$; $p < .05$), with the cognitive restructuring and coping-skills training group evincing most improvement. Thus, this modality of treatment tends to be better than relaxation in the early follow-ups and is significantly better in the 12-month follow-up (Table 4).

Concerning psychopathological measures, there are no significant differences between therapeutic modalities in any of the variables (fears, anxiety, depression, and inadaptation), nor are there differences in any periods of evaluation (Table 5).

Within-Group Analysis

In Table 6 the F and t values are presented relating to global severity of posttraumatic stress disorder and to other psychopathological measures of all the groups. Evolution of such measures over the entire treatment time is shown in Figure 1.

In the global severity of posttraumatic stress disorder a clear improvement can be seen, on the one hand, between the pre- and posttreatment and, on the other hand, a slow increase in said improvement until the 6-month follow-up, after which the results tend to level off.

Concerning psychopathological variables (fears, anxiety, depression, and inadaptation), the evolution is similar to that of posttraumatic stress disorder.

TABLE 3
RATE OF SUCCESS IN THE THERAPEUTIC MODALITIES IN THE POSTTREATMENT AND IN THE FOLLOW-UPS ($N = 20$)

	Group A $N = 10$	Group B $N = 10$	
Assessment	N (%)	N (%)	$\chi^2(1)$
Posttreatment	8 (80%)	5 (50%)	1.97 (*ns*)
1 month	10 (100%)	8 (80%)	2.22 (*ns*)
3 months	10 (100%)	8 (80%)	2.22 (*ns*)
6 months	10 (100%)	9 (90%)	0.05 (*ns*)
12 months	10 (100%)	8 (80%)	2.22 (*ns*)

Note. Group A: Cognitive restructuring and specific coping-skills training. Group B: Progressive muscular relaxation training.

TABLE 4

MEANS, STANDARD DEVIATIONS AND *T*-VALUES IN THE GLOBAL SCALE OF PTSD AND IN THE SUBSCALES OF REEXPERIENCE, AVOIDANCE, AND AUTONOMIC AROUSAL

	Group A $N = 10$		Group B $N = 10$		
	Mean	(*SD*)	Mean	(*SD*)	*t*
Scale Global of PTSD (0–51)					
Pretreatment	36.7	(8.59)	34.3	(7.54)	0.66
Posttreatment	12	(6.94)	18.7	(9.20)	1.84†
1 month	8	(4.42)	14	(8.34)	2.00†
6 months	6	(3.62)	10.3	(6.70)	1.78†
12 months	5	(2.49)	10.5	(7.16)	2.30*
Subscale of Reexperience (0–12)					
Pretreatment	9.9	(2.42)	9.4	(2.75)	0.42
Posttreatment	3	(1.24)	4.7	(2)	2.30*
1 month	2	(1.05)	3.4	(2.27)	1.77†
6 months	1.3	(0.82)	2	(1.63)	1.78
12 months	0.9	(0.99)	2.2	(1.31)	2.49*
Subscale of Avoidance (0–21)					
Pretreatment	11.6	(3.75)	10.2	(2.94)	0.93
Posttreatment	3.3	(2.66)	5.6	(4.24)	1.45
1 month	1.5	(1.43)	3.8	(2.93)	2.40*
6 months	1.1	(1.28)	2.7	(2.71)	1.68
12 months	0.8	(1.33)	2.8	(1.93)	1.96†
Subscale of Arousal (0–18)					
Pretreatment	15.2	(3.64)	14.7	(3.33)	0.32
Posttreatment	5.7	(3.40)	8.4	(3.74)	1.68
1 month	4.5	(2.67)	6.8	(3.85)	1.55
6 months	3.6	(2.59)	5.6	(2.98)	1.60
12 months	3.3	(1.82)	5.5	(3.77)	1.65

Note. Group A: Cognitive restructuring and specific coping-skills training. Group B: Progressive muscular relaxation training.
†$p < .10$, *$p < .05$.

Only in the case of fears can a slightly different pattern be seen in the cognitive restructuring and coping-skills training group: improvement here tends to increase from posttreatment until the 12-month follow-up ($t = 2.75$; $p < .05$).

DISCUSSION

The validity of this study is derived from the equivalence of the groups in pretreatment in all the assessment measures and from the consistency of the results obtained in the different variables measured, as well as from the homogeneity of the sample.

Our study evaluates, for the first time, posttraumatic stress disorder in victims of recent sexual aggression. In the two studies previously published

TABLE 5
MEANS, STANDARD DEVIATIONS AND *T*-VALUES IN THE PSYCHOPATHOLOGICAL VARIABLES

	Group A $N = 10$		Group B $N = 10$		
	Mean	(*SD*)	Mean	(*SD*)	*t*
Fears (MFS-III) (45–225)					
Pretreatment	118.4	(33.27)	141.3	(22.10)	1.78†
Posttreatment	101.7	(26.85)	103.1	(26.16)	0.10
1 month	100	(29.33)	100.2	(19.36)	0.00
6 months	98.9	(34.82)	96.1	(19.85)	0.22
12 months	91	(24.05)	95.8	(22.64)	0.46
Anxiety (STAI-E) (0–60)					
Pretreatment	42.4	(7.83)	44.7	(7.67)	0.06
Posttreatment	18.5	(9.46)	20.6	(14.74)	0.37
1 month	19.3	(7.45)	14.4	(11.31)	1.14
6 months	13.2	(6.74)	15	(10.89)	0.42
12 months	10.4	(4.94)	13.5	(12.35)	0.73
Depression (BDI) (0–63)					
Pretreatment	19.9	(8.72)	17.8	(9.97)	0.50
Posttreatment	8.9	(7.89)	8	(9.41)	0.22
1 month	7	(6.12)	7.1	(8.13)	0.00
6 months	3.8	(3.19)	4.8	(6.17)	0.46
12 months	3.6	(2.67)	4.1	(4.30)	0.32
Inadaptation (Scale of Adaptation) (1–6)					
Pretreatment	4.6	(1.07)	4.5	(0.84)	0.22
Posttreatment	2.4	(0.69)	2.8	(0.42)	1.55
1 month	2.4	(0.84)	2.3	(0.82)	0.26
6 months	1.9	(0.56)	1.9	(0.56)	0.00
12 months	1.8	(0.42)	1.5	(0.52)	1.41

Note. Group A: Cognitive restructuring and specific coping-skills training. Group B: Progressive muscular relaxation training.
†$p < .10$, *$p < .05$.

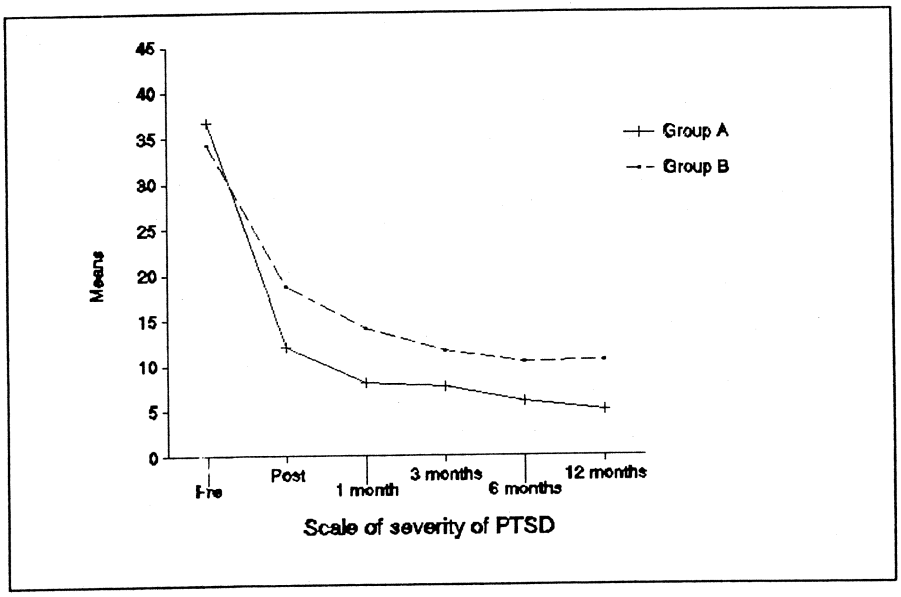
(Frank et al., 1988; Kilpatrick & Veronen, 1983) the assessment of therapeutic changes is related to diverse indirect psychopathological variables (anxiety, fears, depression, etc.), but not to posttraumatic stress disorder per se. In addition, this is the first study in which follow-ups were conducted over the long term (12 months).

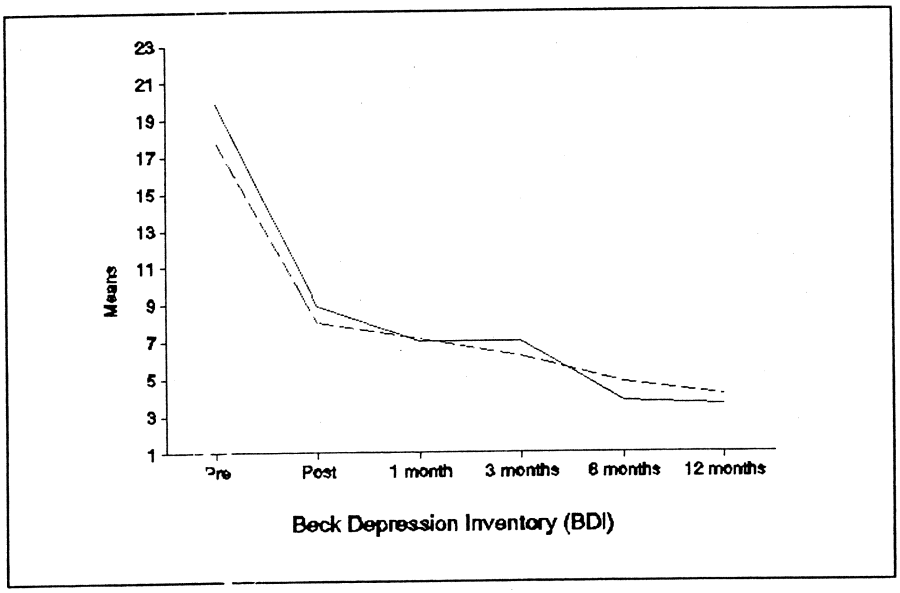
Given the low correlation existing between both variables ($r = .14$), the degree of severity of posttraumatic stress disorder experienced by the victims does not depend on the type of sexual aggression suffered (consummated rape

TABLE 6
WITHIN-GROUP COMPARISONS (*F*- AND *T*-VALUES) IN THE PSYCHOPATHOLOGICAL VARIABLES

	Group A $N = 10$	Group B $N = 10$
	$F = 102.92^{***}$	$F = 76.21^{***}$
	t	*t*
Scale of PTSD		
Pre-Post	9.75***	6.99***
Pre-12 months	8.10***	11.44***
Post-1 month	3.02*	6.06***
Post-12 months	3.71**	7.36***
	$F = 3.13^{*}$	$F = 16.92^{***}$
	t	*t*
Fears (MFS-III)		
Pre-Post	1.90	4.40**
Pre-12 months	3.00*	5.40***
Post-1 month	0.36	0.57
Post-12 months	2.75*	0.99
	$F = 47.45^{***}$	$F = 27.04^{***}$
	t	*t*
Anxiety (STAI-E)		
Pre-Post	9.53***	5.55***
Pre-12 months	12.67***	7.19***
Post-1 month	0.28	3.97**
Post-12 months	0.75	0.75
	$F = 17.42^{***}$	$F = 19.13^{***}$
	t	*t*
Depression (BDI)		
Pre-Post	4.11**	4.47**
Pre-12 months	6.42***	5.57***
Post-1 month	1.26	1.49
Post-12 months	3.05*	1.90
	$F = 5.38^{***}$	$F = 5.38^{***}$
	t	*t*
Inadaptation (Scale of Adaptation)		
Pre-Post	6.13***	7.96***
Pre-12 months	8.57***	14.23***
Post-1 month	0.00	2.24
Post-12 months	3.67**	8.51***

Note. Group A: Cognitive restructuring and specific coping-skills training. Group B: Progressive muscular relaxation training.
$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.





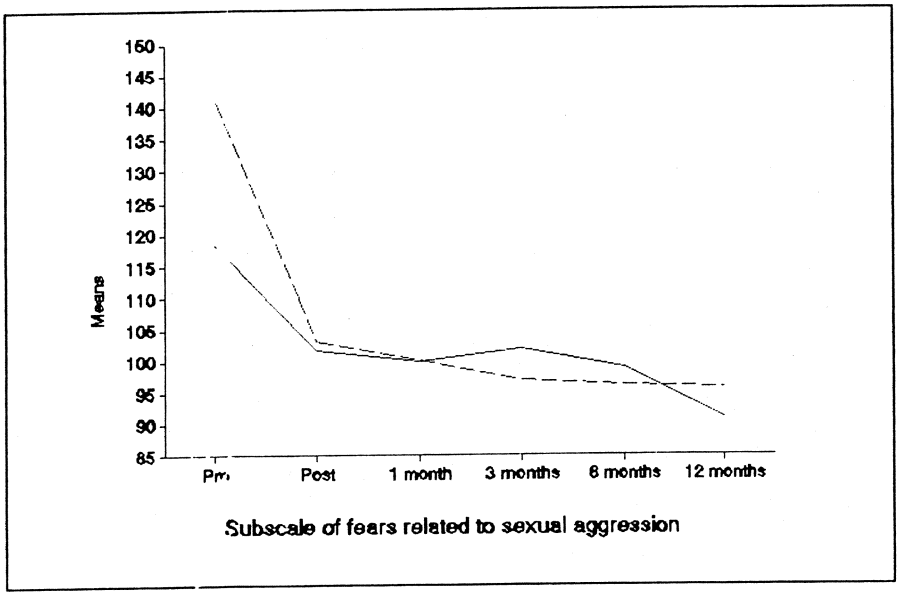


FIG. 1. EVOLUTION OF PSYCHOPATHOLOGICAL VARIABLES.

versus attempted rape), but rather depends on other circumstances (subjective perception of the event, stressful life-events suffered, degree of social support, and emotional stability; cf. Becker, Skinner, Abel, Howell, & Bruce, 1982; Kusher et al., 1992). As a result, there is no significant correlation between criminal severity and psychological severity of sexual aggression.

As in other studies of victims of not-recent sexual aggression (Foa et al., 1991; Resick & Schnicke, 1992), posttraumatic stress disorder is shown to be a syndrome that is amenable to successful treatment with a behavioral therapeutic program. In fact, after one year of treatment, a 100% success rate was obtained in the cases in the first group, followed by 80% in the second group.

Regarding the differential efficacy of the therapeutic modalities, differences in the level of global severity of posttraumatic stress disorder began to manifest themselves as slight trends in posttreatment. By the 12-month follow-up, the cognitive restructuring and specific coping-skills training group were superior. The importance of this finding lies in that it contradicts the conclusion reached in prior studies (e.g., Foa, Rothbaum, & Steketee, 1993), suggesting that there is no advantage of any one behavioral treatment over others.

The advantage of the cognitive-behavioral program is made evident especially in the improvement of reexperience and avoidance symptoms. From a clinical point of view, this contribution is even more relevant if one takes into account that the most frequent symptoms in this disorder are those of reexperience and autonomic arousal (Foa, Zimbarg, & Rothbaum, 1992; Resnick, Foy, Donahoe, & Miller, 1989; Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992).

Relaxation proves to be useful to help the patient deal with the autonomic components of arousal present in posttraumatic stress disorder, but for the rest of the symptoms it remains an inferior treatment to the integrated treatment, the goal of which is to carry out cognitive restructuring (especially in the area of the attribution of guilt for what has happened) and specific coping-skills training (relaxation among them) in order to regain control of daily life. However, among the rest of the psychopathological variables there were no differences between the two groups.

Regarding therapeutic pattern, the profile is the same in the two experimental conditions in all psychopathological variables: a rapid improvement between the pre- and posttreatment, a slow increase of such improvement between posttreatment and the 6-month follow-up, and, finally, maintenance of the therapeutic changes from this point onward. Nevertheless, with the integrated treatment, improvement continued in the area of fears related to the sexual aggression suffered, including the 12-month follow-up.

The degree of acceptance of treatment on the part of the victims is high. In fact, there were no refusals of treatment or dropouts from the program. This is an important feature to note, since in other types of patients suffering from posttraumatic stress disorder (for example, veterans of combat) number of refusals and dropouts can be high. In the Albuquerque study (1992) rate of refusals and dropouts together constituted 39% of the sample.

In summary, the cognitive-behavioral program described in this paper is effective in overcoming posttraumatic stress disorder and the psychopathological variables associated with it in victims of recent sexual aggression, and it is proven superior to mere relaxation treatment with long-term follow-up. For the first time, a specific psychological intervention is shown to be superior to another in the treatment of posttraumatic stress disorder in victims of recent sexual aggression. From this perspective, application of a specific treatment shortly after sexual trauma can have a prophylactic effect that will prevent development of symptoms in the medium and long term, such as phobias, social isolation, sexual dysfunction, and even suicide attempts.

A number of issues will have to be considered in future studies. A larger sample size is required in order to have sufficient statistical power to confirm the conclusions of this study.

Spontaneous remission in untreated victims — not controlled in this study — is not probable, because the degree of stress in the first 3 weeks after the aggression is a highly predictive factor of the level of stress in the long term (Veronen & Kilpatrick, 1983). The victims in this study were evaluated, on the average, 5 weeks after the aggression, and showed a high degree of stress in all cases.

On the other hand, the role of nonspecific treatment factors is unknown and needs to be evaluated in the future.

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