

**MENTAL DISORDERS  
IN A FRENCH FOLLOW-UP STUDY  
OF RAPE VICTIMS**

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During the nineteenth century, the French clinical literature on psychological trauma developed considerably.

The main works of reference are those by Moreau (de Tours), Briquet, Jean-Martin Charcot and Pierre Janet.

The body of knowledge they developed has long remained unused, but over the last fifteen years it has once more become the subject of much research.

# **RAPE IN FRANCE**

**7%** of women under 35 had  
*"sexual intercourse under pressure"*

**(National Health and Medical Research Institute -  
INSERM, 1993)**

**1%** of 14-19 years old adolescents were  
*"rape victims"*

**(National Health and Medical Research Institute -  
INSERM, 1994)**

## 2. Rape in France

Rape is a frequent psychological trauma.

In France, a study carried out by the National Health and Medical Research Institute (INSERM) showed that seven percent of women under thirty-five state they had had "*sexual intercourse under pressure*".

A further INSERM study surveyed a representative sample of fourteen to nineteen years old adolescents showing a one percent rate of "*rape victims*".

## **METHODS OF OUR STUDY**

- **92 subjects, aged 13 and over, victims of incestuous or non-incestuous rape**
  - **consecutively admitted to a Forensic Center for Victims of Rape**
  - **assessed in a six-month follow-up study**
  - **with structured interviews :**
    - *Anxiety Disorders Interview Schedule (ADIS)*
    - *Structured Clinical Interview for DSM-IV Dissociative Disorders (SCID-D)*
    - *Structured Interview for Post-Traumatic Stress Disorder (SI-PTSD)*
- and a specific socio-demographic and clinical questionnaire**



### 3. Methods

In France victims of sexual assault are referred to specific centers located in departments of gynecology. In the town of Tours in France, an official convention links the Forensic Center for Victims of Rape to a psychiatric consultation department for victims of psychological trauma, set up within the University Hospital's Psychiatry Department.

In this study, our aim was to establish the longitudinal course of PTSD in this population, and the prevalence of mental disorders over a 6-month period after they entered the cohort. We also attempted to group these mental disorders into syndromes related to PTSD whilst remaining distinct from it from a semiological point of view. We finally sought to determine from the victims' individual characteristics, from the type of trauma and the clinical signs observed soon after the trauma, which were the predictive factors for chronic PTSD 6 months after entering the cohort, and which may not be declared so.

All the 92 victims under study were aged 13 and over, and were consecutively admitted to the center. The study was limited to rape victims (non-incestuous rape or incestuous rape). In this study, clinical assessments were made on arrival at the center, after 10 days, 1 month, 3 months and 6 months. The psychiatrist interviewed all the patients using structured interview schedules: the Anxiety Disorders Interview Schedule, the Structured Interview for PTSD, the Structured Clinical Interview for DSM-IV Dissociative Disorders and a questionnaire drawn up for our study purposes.

## VICTIMS' PERSONAL CHARACTERISTICS

90% were women

mean age was 20.3 years (SD=7.8, range 13-50)

62% were school-goers or students

26% of the fathers worked in an executive  
capacity

46% had been separated from one of their parents  
in their childhood at some point prior to the  
first rape

16% were married or were living with a partner

98% were French





#### 4. Victims' personal characteristics

Ten percent of the cohort were men,  
the mean age was 20.3 years in the cohort,  
sixty-two percent were school-goers or students,  
the fathers of twenty-six percent worked in an  
executive capacity, the remainder's socio-professional  
group being lesser,  
fourty-six percent had been separated from one of  
their parents in their childhood at some point prior to  
the first rape, most often due to the parents separating or  
the death of one of them,  
sixteen percent were married or were living with a  
partner,  
and ninety-eight percent were French.

## **INCIDENCE AND LONGITUDINAL COURSE OF PTSD**

<b>MONTHS AFTER RAPE</b>	<b>PTSD</b>
<b>1</b>	<b>87%</b>
<b>3</b>	<b>70%</b>
<b>6</b>	<b>65%</b>

**PTSD started with a mean delay of :**

**3.5 days (SD=4.5, range=0-20)**

#### 5. Incidence and longitudinal course of PTSD

PTSD was present one month after rape for 87% of the victims; three months after rape for 70% of the victims; six months after rape for 65% of the victims. PTSD started with a mean delay of 3.5 days.

# CIRCUMSTANCES OF TRAUMA

	Total cohort  %	Subjects with PTSD at 6 months  %	Subjects without PTSD at 6 months  %	Comparison  p      OR
intra-family	40	51	21	<0.02   9.0
perpetrator unknown	21	17	29	ns
age at first rape < 15 years	53	64	38	<0.03
several episodes of sexual abuse	24	22	17	ns
repeated rapes	58	61	50	ns
repeated rapes over several months	35	41	29	ns
added physical violence during rape	57	54	58	ns
female perpetrator	1	2	0	ns
complaint lodged immediately	38	34	38	ns
good environment after trauma	30	24	42	ns
subject battered (outside rapes)	40	39	38	ns

## 6. Circumstances of trauma

The patients' answers were first described statistically, and then the features of those suffering from PTSD at 6 months were compared with those who were not. In order to explain the results and to take into account the multiplicity of links between the data we obtained, we set up logistic regressions which are regressions of the probability of observing PTSD at six months as a function of the covariables introduced into the models. In logistic regressions odds ratios are determined, approximating relative risks. These logistic regressions thus determined the predictive factors for chronic PTSD at six months, and those factors which could not be referred to as such.

This Table groups together some of the features of traumas experienced by cohort members. A certain type of victims is more likely to present PTSD at 6 months : especially, those who lived *intrafamily rape*, or those who were *under 15 at their first rape*. However, such clinical features are not independent of each other. For this reason a logistic regression was applied and included, within the model, the variables of this Table. It shows the incestuous nature of rape is a predictive factor for PTSD with 9.0 for odd ratio. With intrafamily rape (N=37), the perpetrator was either the father (32%), the stepfather (30%), an uncle (22%), a brother (14%) or a grandfather (3%).

# GENERAL AFTERMATH OF RAPE

	Total cohort  %	Subjects with PTSD at 6 months  %	Subjects without PTSD at 6 months  %	Comparison  p OR
Suicide attempt	30	34	13	<0.05
Running away	25	31	8	<0.04 10.4
Alcohol abuse	24	29	8	<0.05
Sexual dysfunctions	71	78	50	<0.02
Fear of AIDS	37	41	29	ns
Inability to cope with aggressive behaviors	56	64	33	<0.01
Inability to trust others	85	90	67	<0.03 11.3
Chooses friends badly	37	39	27	ns
Subsequent learning difficulties	69	77	50	<0.04
Learning difficulties (previous or subsequent)	85	86	83	ns
Has consulted a psychiatrist	47	54	25	<0.02





## 7. General aftermath of rape

A certain number of psycho-behavioral features following rape were assessed over the six months after entering the cohort : suicide attempt, running away, alcohol abuse, sexual dysfunctions, fear of AIDS, inability to cope with aggressive behaviors, inability to trust others, chooses friends badly, learning difficulties and consulting a psychiatrist. The Table shows these results. It will be noticed that school-age victims present often learning difficulties and that it is linked with the occurrence of chronic PTSD.

In other respects, a logistic regression was applied including, within the model, the variables of the Table. The factors retained within the model are *inability to trust others* (OR=11.3) and *running away* (OR=10.4). This means that these two clinical features : *inability to trust others* and *running away* are predictive of PTSD at six months.

# MENTAL DISORDERS AFTER RAPE

	Total cohort  %	Subjects with PTSD at 6 months  %	Subjects without PTSD at 6 months  %	Comparison  n  p
Dissociative disorders	69	84	38	<0.0001
Somatoform disorders	66	75	42	<0.01
Agoraphobia	54	70	20	<0.0001
Simple phobia	46	56	25	<0.02
Social phobia	43	49	29	ns
Panic disorder	13	18	0	<0.03
Obsessive compulsive disorder	8	12	0	ns
Generalized anxiety	9	7	17	ns
Depressive disorders	38	53	8	<0.001
Psychotic or bipolar disorders	10	7	13	ns
Alcohol abuse	24	29	8	<0.05
Drugs use	12	14	8	ns
Eating disorders	19	20	8	ns

<b>Gender Identity disorder</b>	<b>31</b>	<b>41</b>	<b>4</b>	<b>&lt;0.001</b>
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#### 8. Mental disorders following rapes

See the Table showing the mental disorders following rape. Some are linked with the group of victims with PTSD at six months. These are : dissociative disorders, somatoform disorders, agoraphobia, specific phobias, panic disorder, depressive disorders, alcohol abuse and gender identity disorder.

# Traumatic Borderline-like Syndrome

	Total cohort	Subjects with PTSD at 6 months	Subjects without PTSD at 6 months	Comparison
	%	%	%	p
Frequent fear of being abandoned	58	69	29	<0.001
Low self-esteem	49	60	25	<0.01
Gender identity disorder	31	41	4	<0.001
Impulsivity in risk-taking behavior <sup>c</sup>	52	57	38	ns
Self-harm <sup>d</sup>	33	39	13	<0.02
Affective disorder of the depressive type	38	53	8	<0.001
Permanent feelings of emptiness or boredom	62	69	42	<0.03
Aggressiveness <sup>e</sup>	49	56	33	ns
At least 5 symptoms out of the 8 above	41	51	14	<0.01

<sup>c</sup>Eating disorders, substance abuse, problems with the law, risk-taking sexual behavior, running away

<sup>d</sup>Suicide attempt, cutting, burning

<sup>e</sup>Destroying things, fighting

#### 9. The Borderline-like Traumatic Syndrome

Eight clinical signs which appeared following rape, and remained present continuously throughout the 6 month follow-up period are listed on the Table. These are : frequent fear of being abandoned, low self-esteem, gender identity disorder, affective disorder of the depressive type, permanent feeling of emptiness, self-harm such as cutting, burning or suicide attempt, aggressiveness such as fighting or destroying things, impulsivity in risk-taking behavior such as running away, risk-taking sexual behavior, problems with the law, substance abuse or eating disorders. Such features are commonly to be found in patients termed borderline.

Having at least 5 out of the 8 symptoms is associated more frequently with victims having PTSD at 6 months. It is for this reason that we termed this cluster of features the "*Borderline-like Traumatic Syndrome*".

This syndrome which moreover appears soon after rape, is thus a factor predictive of PTSD at six months with an odd ratio at 8.

# **PHOBIC AND DISSOCIATIVE TRAUMATIC SYNDROME**

<b>VICTIMS WITHOUT AT 6 MONTHS</b>	<b>WITH PTSD</b>	<b>PTSD</b>
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**with 3 disorders  
among :**

**agoraphobia,  
specific phobias,  
dissociative or  
somatoform  
disorders.**

<b>61%</b>	<b>21%</b>
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**( $p < 0.001$ )**

Hysteria has traditionally been described firstly as a cluster of multiple somatic phenomena of psychological origin or somatoform disorders (described by Briquet in 1859), and secondly as a "shrinking of the field of awareness" or psychological dissociation (described by Janet in 1889). In addition, hysteria has often been associated with phobias. Actually, the Table shows that the 4 disorders: agoraphobia and specific phobias, dissociative and somatoform disorders, are significantly linked to PTSD at 6 months. In the cohort as a whole, 61% of patients with PTSD 6 months after entering the cohort presented at least 3 out of the 4 disorders as against 21% of the victims without PTSD at 6 months. For this reason we termed the 4 disorders the "*Phobic and Dissociative Traumatic Syndrome*". This syndrome which also appears soon after rape, is therefore predictive of PTSD at six months. A logistic regression including within the model *PTSD at 6 months*, as the dependent variable, and these 4 disorders, showed that only the dissociative disorders (OR=7.03) and agoraphobia (OR=7.24) remain in the model. This means that dissociative disorders and agoraphobia are the best factors out of these four disorders to be predictive of PTSD at six months.



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**Reference : JM Darves-Bornoz (1997) Rape-related psychotraumatic syndromes. *European Journal of Obstetrics, Gynecology and Reproductive Biology* 71: 59-65.**

## 11. CONCLUSION

After rape, all mental disorders in such victims are very frequent. The prevalence of chronic PTSD is especially high in these victims.

The incestuous nature of rape is a predictive factor of chronic PTSD.

Phobic and dissociative, as well as borderline-like features become widely present in these victims by 6 months.

Thus, classifying many victims as suffering from personality disorders should be called into question. It would be better to see some of their clinical signs as part of the clinical description of a post-traumatic disorder.