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Rape-related psychotraumatic syndromes

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Abstract

Objective: This study took place in a forensic center for rape victims. Our aims were: first, to explore the longitudinal course of post-traumatic stress disorder (PTSD) and prevalence of disorders over the 6-month period following rape, then second, to group these disorders into syndromes related to chronic PTSD whilst remaining distinct from it, and third, to establish some predictive factors for chronic PTSD. *Study design:* 92 rape victims consecutively admitted to the center were regularly interviewed over a 6-month period by a psychiatrist. *Results:* The paper confirms that rape leads to a high proportion of PTSD. Generally speaking, the psychopathology following rape is severe. PTSD at 6 months is associated with phobic and dissociative disorders. It is further associated with a cluster of symptoms arising after rape that we term borderline-like. Incestuous rape is a predictive factor for PTSD at 6 months. *Conclusion:* In the aftermath of rape several semiologically distinct psychotraumatic syndromes exist. Copyright © 1997 Elsevier Science Ireland Ltd.

Keywords: Borderline disorder; Dissociative disorders; Incest; Post-traumatic stress disorder; Rape

1. Introduction

During the 19th century, the clinical literature on psychological trauma developed considerably. The main works of reference are those by Moreau (de Tours), Briquet, Charcot, Janet and Freud in his first period. 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 [1,2]. Rape is once again relevant in traumatic disorders [3,4] although the interpersonal nature of such an event sets it apart. In particular, incestuous rape (which is a rape committed by someone supposed to be a protector and not an aggressor) is shown to disrupt basic systems of meanings [5]; for instance, what does being a parent mean when the father you know is incestuous.

Rape is a frequent psychological trauma [6–8]. In France, a study carried out by the National Health and Medical Research Institute (INSERM) showed that 7% of women under 35 state they had had 'sexual intercourse under pressure' [9]. A further INSERM study surveyed a representative sample of 14–19 year-olds showing a 1% rate of 'rape victims' [10]. The present paper follows on from previous research on psychiatric populations [11,12] and a single case study [13], in which clinical symptoms common to all patients having undergone rape were found.

In France, victims of sexual abuse are referred to specific forensic centers frequently located in University hospital departments of gynecology. We hypothesized that such patients admitted to these centers, for whom no psychological treatment is provided, have severe psychopathology, and primarily chronic post-traumatic stress disorder (PTSD), a disorder which associates continuous re-experiencing of the trauma, nightmares for example, avoidances of all kinds and hyperarousal. In Tours, an official convention links the works carried out in the center to a psychiatric consultation department for victims of psychological trauma, set up by the author in 1992 within the University Hospital's Psychiatry Department. However, the lack of specific means for such treatment led us to instigate a research project in order to convince the authorities of the need to develop such psychiatric trauma units. In this paper,

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our aim is 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.

2. Method

The population under study were victims of rape admitted to the Center for Victims of Sexual Abuse located in the department of gynecology within the University Hospital in Tours, France. The Center provides forensic assessment, gynecological care and social aid as well as information about the psychiatric care for psychological trauma victims provided by the aforementioned University Department of Psychiatry. Any victim lodging a complaint with the police is referred to the center. Other victims come on their own initiative. Around 130 sexual abuse victims are admitted to this Center each year, and all originate from within the 'département' (an administrative area of which there are 95 in France). All the victims under study were aged 13 and over, and were consecutively admitted to the center. The study was limited to rape victims, i.e. subjects who had undergone sexual penetration after a violent assault, the use of force, or being taken unawares. During the period of inclusion, 102 rape victims consulted at the center, 72 of whom for rape which had just occurred. Ten of them (10%) were not given a psychological examination: six arrived at night or on public holidays and could not be seen later; three others were seen, but two could not take part in the study because of cognitive disorders and the third refused to give consent; the remaining one was a man who had just killed the person who had abused him as a child (except for this latter case, the rapes which were not assessed had just taken place). Ninety-two patients were therefore included in the study, 63 being victims of recent rape. Four subjects (4%) dropped out after a month, three (3%) after 3 months and two (2%) after 6 months. Eighty-three victims were therefore successfully assessed over the full 6-month period, including 55 for recent rape. After complete description of the study to the subjects, informed written consent was obtained.

In this longitudinal study, clinical assessments were made on arrival at the center, after 10 days, 1 month, 3 months and 6 months. The same psychiatrist interviewed all the patients using structured interview schedules: the anxiety disorders interview schedule (ADIS), the structured interview for post-traumatic stress disorder (SI-PTSD), the structured clinical interview for DSM-IV dissociative disorders (SCID-D) and a questionnaire drawn up for our study purposes. The ADIS is a structured interview schedule designed to screen for anxiety, mood and somatoform disorders and substance abuse [14]. The SI-PTSD allows for the diagnosis of PTSD [15]. The SCID-D is a schedule for the diagnosis of dissociative disorders [16]. The last instrument in the battery is a socio-demographic, psycho-social and clinical questionnaire derived from another questionnaire used previously [12].

The patients' answers were first described statistically, and then the features of those suffering from PTSD 6 months after entering the cohort were compared with those who were not. This comparison was chosen because in psychological trauma the essential health question concerns chronic PTSD, a severe disorder, and not acute stress reactions which sometimes do not last long. To compare the qualitative variables, χ^2 tests (with Yates correction if the numbers calculated were under five) were used. In order to explain the results and to take into account the multiplicity of links between the data we obtained, we set up modelization methods for the qualitative data (logistic regressions) which are regressions of the probability of observing PTSD at 6 months as a function of the covariables introduced into the models. In logistic regressions, odds ratios (OR) and their 95% confidence interval (95% CI) are determined. The size of the range of the confidence interval is linked to the size of the sample. These logistic regressions were applied to the sub-cohort of patients whose entry into the cohort coincided exactly with a rape, and thus determined the predictive factors (following soon after the onset of the disorders or even preceding it) for chronic PTSD at 6 months, and those factors which could not be referred to as such.

3. Results

3.1. Victims' personal characteristics

Ten percent of the cohort were men, 98% were French, 16% were married or were living with a partner, 62% were school-goers or students, the fathers of 26% worked in an executive capacity, the remainder's socio-professional group being lesser, and 46% 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. The mean age was 20.3 years (S.D. = 7.8, range = 13–50) in the cohort.

Table 1
Circumstances of trauma

	Total cohort[a] ($n = 92^b$)		Subjects with PTSD 6 months after entering the cohort[a] ($n = 59^b$)		Subjects without PTSD 6 months after entering the cohort[a] ($n = 24^b$)		Comparison	
	%	n	%	n	%	n	χ^2	P
Intra-family (last rape)	40	37	51	30	21	5	6.30	<0.02
Perpetrator unknown (last rape)	21	19	17	10	29	7	—	ns
Age at first rape <15 years	53	49	64	38	38	9	5.03	<0.03
Several episodes of sexual abuse[c]	24	22	22	13	17	4	—	ns
Repeated rapes[d]	58	53	61	36	50	12	—	ns
Repeated rapes over several months[e]	35	32	41	24	29	7	—	ns
Added physical violence during rape[f]	57	52	54	32	58	14	—	ns
Female perpetrator	1	1	2	1	0	0	—	ns
Complaint lodged immediately	38	35	34	20	38	9	—	ns
Good environment after trauma	30	28	24	14	42	10	—	ns
Subject battered (outside rapes)	40	37	39	23	38	9	—	ns

ns, non-significant difference.
[a] Subjects who entered the cohort immediately or some time after the rape.
[b] Some subjects could not be successfully assessed for some features or subjects dropped out.
[c] With or without rape but with different perpetrators.
[d] The same or different perpetrators.
[e] By one of the perpetrators.
[f] Actually being beaten or being threatened with violence, with or without a weapon.

3.2. Incidence and longitudinal course of PTSD

PTSD was present after 1 month for 85% ($n = 75$) of the whole of the cohort and 87% ($n = 52$) of the sub-cohort of the victims whose entry into the cohort coincided exactly with a rape; after 3 months for 74% ($n = 63$) of the cohort and 70% ($n = 40$) of the sub-cohort; after 6 months for 71% ($n = 59$) of the cohort and 65% ($n = 36$) of the sub-cohort. Eighteen percent of the cohort developed delayed PTSD 6 months after the first rape (versus 6% of the sub-cohort). For those who did not develop PTSD after this 6-month delay, PTSD started with a mean delay of 5.0 days after the rape (S.D. = 10.3, range = 0–70) in the cohort and 3.5 days (S.D. = 4.5, range = 0–20) in the sub-cohort.

3.3. Circumstances of the trauma

Recent reports have shown that it can be fruitful to examine the types of trauma and sequences of traumatic experiences [17]. Table 1 groups together some of the features of traumas experienced by cohort members. A certain type of victim is more likely to present PTSD at 6 months; indeed, positive scoring for at least two of the following four criteria in Table 1 ($n = 47$ versus $n' = 36$): intrafamily rape, first rape aged under 15, repeated rapes by one aggressor over several months, poor quality of environment after rape, is significantly linked to the group with PTSD at 6 months ($n = 38$ versus $n' = 21$, $\chi^2 = 5.03$, df = 1, $P < 0.03$). 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 in Table 1 significantly related to PTSD at 6 months. It shows the incestuous nature of rape is a predictive factor for PTSD at 6 months in the sub-cohort of subjects whose entry into the cohort coincided with rape (OR = 9.0, 95% CI = 1.1–75.7).

The mean age at the time of the first rape was 15.8 (S.D. = 8.1) in the cohort as a whole and 18.4 (S.D. = 8.3) in the sub-cohort. The approximate mean age differential between perpetrator and victim was 13.5 years (S.D. = 13.5) in the cohort and 9.3 years (S.D. = 11.1) in the sub-cohort. With intrafamily rape ($n = 37$), the aggressor was either the father (32%, $n = 12$), the stepfather (30%, $n = 11$), an uncle (22%, $n = 8$), a brother (14%, $n = 5$) or a grandfather (3%, $n = 1$).

3.4. General aftermath of rape assessed over a 6-month period following entry into the cohort

A certain number of psycho-behavioral features following rape were assessed over the 6 months after entering the cohort. Table 2 shows these results. From

Table 2
Psycho-behavioral features following rape, assessed over the 6-month period after entry into the cohort

	Total cohort[a] ($n = 92$[b])		Subjects with PTSD 6 months after entering the cohort[a] ($n = 59$[b])		Subjects without PTSD 6 months after entering the cohort[a] ($n = 24$[b])		Comparison	
	%	n	%	n	%	n	χ^2	P
Suicide attempt	30	26	34	20	13	3	3.90	<0.05
Running away	25	21	31	18	8	2	4.58	<0.04
Alcohol abuse	24	20	29	17	8	2	4.20	<0.05
Sexual dysfunctions	71	61	78	45	50	12	6.09	<0.02
Fear of AIDS	37	32	41	24	29	7	—	ns
Inability to cope with aggressive behaviors	56	50	64	38	33	8	6.66	<0.01
Inability to trust others	85	77	90	53	67	16	4.97	<0.03
Chooses friends badly	37	32	39	22	27	6	—	ns
Subsequent learning difficulties	69	45	77	34	50	9	4.46	<0.04
Learning difficulties (previous or subsequent)	85	74	86	48	83	19	—	ns
Has consulted a psychiatrist	47	41	54	32	25	6	5.88	<0.02

ns, non-significant difference.
[a] Subjects who entered the cohort immediately or some time after the rape.
[b] Some subjects could not be successfully assessed for some features or subjects dropped out.

a gynecological point of view, fears concerning AIDS, and above all sexual dysfunctions often due to flashbacks and re-experiencing the trauma during sexual relations must be pointed out. It will be noticed that school-age victims with PTSD 6 months after entering the cohort are more likely to encounter learning difficulties. Indeed, in the sub-cohort of the victims whose entry into the cohort coincided exactly with a rape, the subsequent learning difficulties after rape (OR = 5.8, 95% CI = 1.3–25.1) is over-represented in the group with PTSD at 6 months. In other respects, a logistic regression was applied including, within the model, the variables on Table 2 significantly linked to PTSD at 6 months (except for learning difficulties only concerning school-goers). In the sub-cohort, the factors retained within the model are inability to trust others (OR = 11.3, 95% CI = 1.74–73.1) and running away (OR = 10.4, 95% CI = 1.03–104.0). This means that these two clinical features are predictive of PTSD at 6 months.

3.5. Mental disorders following rapes assessed over a 6-month period following entry into the cohort

See Table 3 below. It should be noted that five kinds of dissociative disorders are particularly frequent: psychogenic amnesia (which affects 44% of the cohort) mainly concerns the memory of rape but can also affect the memory of other events; depersonalization (25%) often gives the impression of being outside one's body, as if one were observing oneself from without; dissociative fugue (8%) involves running away whilst in a special state of mind where the sense of identity is disturbed; multiple personality (10%) involves several personalities functioning alternately in the subject; a remaining category of not otherwise specified dissociative disorders (20%) groups together other dissociative states in which the fragmentation of identity lacks sufficient fixity for it to be diagnosed as multiple personality. The somatoform disorders sometimes included gynecological symptoms such as pelvic pain or amenorrhea.

3.6. The borderline-like traumatic syndrome in rape victims over a 6-month period following entry into the cohort

Eight clinical signs which appeared following rape, and remained present continuously throughout the 6 month follow-up period are listed in Table 4. Such features are commonly to be found in patients termed borderline. Gender identity disorder, which is often one of these features, most frequently involves a discomfort with his or her sex and a desire to be the other sex. In the sub-cohort of patients for whom rape took place exactly 6 months previously, having at least five of the eight symptoms is associated more frequently with patients having PTSD at 6 months (OR = 7.97, 95% CI = 1.5–42.2). 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 6 months.

Table 3
Mental disorders subsequent to rape assessed over the 6-month period after entry into the cohort[a]

	Total cohort[b] ($n = 92$[c])		Subjects with PTSD 6 months after entering the cohort[b] ($n = 59$[c])		Subjects without PTSD 6 months after entering the cohort[b] ($n = 24$[c])		Comparison	
	%	n	%	n	%	n	χ^2	P
Post-traumatic stress disorder	71	59	100	59	0	0	—	—
Dissociative disorders	69	59	84	48	38	9	17.67	<0.0001
Somatoform disorders	66	54	75	43	42	10	8.52	<0.01
Agoraphobia	54	45	70	40	20	5	16.65	<0.0001
Simple phobia	46	38	56	32	25	6	6.58	<0.02
Social phobia	43	36	49	28	29	7	—	ns
Panic disorder	13	11	18	10	0	0	Fisher[d]	<0.03
Obsessive compulsive disorder	8	7	12	7	0	0	—	ns
Generalized anxiety	9	8	7	4	17	4	—	ns
Depressive disorders	38	32	53	30	8	2	13.87	<0.001
Psychotic or bipolar disorders	10	9	7	4	13	3	—	ns
Alcohol abuse	24	20	29	17	8	2	4.20	<0.05
Drug use	12	10	14	8	8	2	—	ns
Eating disorders	19	17	20	12	8	2	—	ns
Gender identity disorder	31	27	41	24	4	1	11.10	<0.001

ns, non-significant difference.
[a] Only disorders which lasted the full 6 months are taken into account here.
[b] Subjects who entered the cohort immediately or some time after the rape.
[c] Some subjects could not be successfully assessed for some disorders or subjects dropped out.
[d] Applying the Fisher exact test.

3.7. The phobic and dissociative traumatic syndrome in rape victims over the 6-month period following their entry into the cohort

Hysteria has traditionally been described firstly as a cluster of multiple somatic phenomena of psychological origin, i.e. somatoform disorders (Briquet, 1859), and secondly as a 'shrinking of the field of awareness' (Janet, 1889), i.e. psychological dissociation. In addition, hysteria has often been associated with phobias, disorders which implies fear and the avoidance of objects and situations such as open spaces in agoraphobia. For this reason patients with this disorder have often been considered as 'hystero-phobic'. Actually, Table 3 shows that the four disorders: dissociative and somatoform disorders, agoraphobia and simple phobia, are significantly linked to PTSD at 6 months. In the cohort as a whole, 61% ($n = 35$) of patients with PTSD 6 months after entering the cohort presented at least three out of the four disorders as against 49% ($n = 40$) of the whole of the cohort ($\chi^2 = 11.12$, df = 1, $P < 0.001$). For this reason we termed the four disorders the 'phobic and dissociative traumatic syndrome'. This syndrome which also appears soon after rape, is therefore predictive of PTSD at 6 months. A logistic regression including within the model PTSD at 6 months, as the dependent variable, and these four disorders, showed that for the sub-cohort, only the dissociative disorders (OR = 7.03, 95% CI = 1.63–30.3) and agoraphobia (OR = 7.24, 95% CI = 1.5–34.8) 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 6 months.

4. Discussion

We did not study the general population since our scope is limited to the subjects involved in a legal process or those who request help. However, any victim involved in a legal process with the jurisdiction of Tours is automatically referred to our services, which means that our survey of this population can be considered exhaustive. Today, the legal statistics suggest that victims lodge a complaint much more readily. The advantage of a prospective study lies in the fact that the victims of recent rape (as was the case for most members of the cohort) did not know whether they would develop PTSD a few days later. As for the victims who are not screened by the Center, it cannot be stated categorically that they are more or less ill than those who consult us. Some are indeed very ill and yet avoid all health care services, which of course fuels much controversy [18]. Others however seem to recover from such rapes without too many problems and may not request help for this reason.

Table 4
The Traumatic Borderline-like Syndrome arising after rape assessed over the 6-month period following entry into the cohort

	Total cohort[a] ($n = 92^b$)		Subjects with PTSD 6 months after entering the cohort[a] ($n = 59^b$)		Subjects without PTSD 6 months after entering the cohort[a] ($n = 24^b$)		Comparison	
	%	n	%	n	%	n	χ^2	P
Frequent fear of being abandoned	58	53	69	41	29	7	11.38	<0.001
Low self-esteem	49	44	60	35	25	6	8.48	<0.01
Gender identity disorder	31	27	41	24	4	1	11.10	<0.001
Impulsivity in risk-taking behavior[c]	52	45	57	33	38	9	—	ns
Self-harm[d]	33	29	39	23	13	3	5.56	<0.02
Affective disorder of the depressive type	38	32	53	30	8	2	13.87	<0.001
Permanent feelings of emptiness or boredom	62	55	69	40	42	10	5.32	<0.03
Aggressiveness[e]	49	44	56	33	33	8	—	ns
At least five symptoms out of the eight above	41	32	51	29	14	3	9.14	<0.01

ns, non-significant difference.
[a] Subjects who entered the cohort immediately or some time after the rape.
[b] Some subjects could not be successfully assessed for some features or subjects dropped out.
[c] Eating disorders, substance abuse, problems with the law, risk-taking sexual behavior, running away.
[d] Suicide attempt, cutting, burning.
[e] Destroying things, fighting.

We confirmed that rape victims are likely to be women, but the number of male victims was not negligible. Rape affects all socio-professional groups and mainly teenagers. The results suggest that non-disrupted attachment in childhood protects against rape, but not against PTSD if the subject does become the victim of rape.

Studying typology of rape shows that the intra-family nature of rape is the best predictor of chronic PTSD at 6 months, thus indicating that incest is the most severe form of rape.

The mental disorders observed following rape show how severe this population's psychopathology is. We found 10% of dissociative identity disorders, and 69% of dissociative disorders in general. This confirms previous findings [19] that dissociative phenomena are closely related to PTSD. The high frequency of dissociative amnesia is also in line with current research [20].

The symptoms we termed 'borderline-like traumatic syndrome' indicate that features of borderline personality disorder are closely related to trauma with onset by 6 months following the rape.This raises the question of whether borderlines states should be classified as personality disorder and suggests that borderline features often result from a precisely dated mental disorder. Our study of mental disorders associated with PTSD at 6 months shows that a 'phobic and dissociative traumatic syndrome' exists and that dissociative disorders and agoraphobia are the most closely related to traumatic stress. These signs are not due to premorbid personality but express a post-traumatic dimension. Our findings have already borne out this fact in a psychiatric population [11].

5. 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, or 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. It then appears that victims need specialized psychiatric care at an early stage.

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