A study on association between dissociation and dreaming in patients with major depressive disorder

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Dissociation can be described as a structured separation of mental processes (for example, perception, conation, emotions, memories, and identity) that are ordinarily integrated in and accessible to conscious awareness. Dissociation may present itself in a variety of symptoms which could be seen in a normal population, and on the other hand may form various syndromes, or so called dissociative disorders.[1] Theoretically, increased rapid eye movement (REM) density sleep in major depressive disorder causes more dreaming and nightmares, but in clinical practice, we observed some depressed patients who did not report dream recall and nightmares. We tested the relationship between dissociation vulnerability and frequent dreams in a group of patients who met the criteria of major depressive disorder.

In this descriptive study, 100 outpatient department patients who met the DSM-IV criteria for major depressive disorder were enrolled. They underwent a semi structured interview to confirm diagnosis, then their demographic factors were assessed. Dissociation was assessed by means of the dissociative experience scale (DES), a 28 item self-reported instrument that can be completed in a few minutes. Each item scored between 0 and 100, the overall DES score is the sum of the 28-item scores divided by 28. Score 30 was chosen as a cut off score for the pathological range by many investigators. In this study patients were divided into 2 groups according to their scoring below or above 30. Subjects were requested to freely remember the number and contents of their dreams in the previous 2 months. Dream contents were evaluated by a 15-item checklist including (death, separation, frightening animals, frightening situations, natural disasters, aggression, falling, punishment, suicide & homicide, sexual harm, waste matters, blood and others). These items were selected according to the authors' unpublished previous pilot study, and using Hall/Van de Castle major categories.[2] Each dream which at least received point 4 from Schredl's dream questionnaire, was considered as a recurrent dream. Schredl's dream questionnaire is a 7-point scale, and point 4 means that a dream has occurred at least once a week. The retest reliability of this scale, for an average interval of 70 days is high (r=0.83).[3] Data were analyzed by chi-square and Spearman logistic regression tests using SPSS-10 software.

One hundred patients with major depressive disorder were enrolled in this study, of whom 71% were female. The mean±SD of age was 35.5±0.52 years. There was no statistical difference between age of female and male patients. Seventy-four percent of subjects were married, 20% were single and 6% were divorced or widowed. The mean score±SD of the DES test was 16.3±12. Fifteen percent of subjects had DES score above 30 and 75% had a score below 30. Fourteen (93.3%) patients with DES score above 30 reported recurrent dreams and 46 (54.1%) patients with DES score below 30 had recurrent dreams (χ^2=8.17, p<0.001). There were no statistical differences between,

Table 1 - Comparison between patients with dissociative experience scale (DES) score above and below 30.

Dream contents	Patients with DES score >30 (n=15) n (%)	Patients with DES score <30 (n=85) n (%)	Analysis χ^2	*P*-value
Death	12 (80)	27 (31.8)	12.47	<0.001
Separation	4 (26.7)	12 (14.1)	NS	
Frightening animals	2 (13.3)	10 (11.8)	NS	
Frightening situations	5 (33.3)	13 (15.3)	NS	
Natural disasters	4 (26.7)	7 (8.2)	NS	
Aggression	9 (60)	22 (25.9)	6.06	0.01
Falling	7 (46.7)	24 (28.2)	NS	
Waste matters	4 (26.7)	3 (3.5)	7.91	<0.005
Blood	2 (13.3)	3 (3.5)	NS	
Negative emotions	5 (33.3)	8 (9.4)	NS	
Bizarre elements	4 (28.7)	6 (7.1)	NS	
Punishment	0 (0)	2 (2.4)	NS	
Suicide and homicide	4 (26.7)	4 (4.7)	6.23	0.01
Sexual harm	2 (13.3)	2 (2.4)	NS	
Others	1 (6.7)	3 (3.5)	NS	

NS - not significant

marital status, level of education, sex, and occupational status of these 2 groups. An increase in the score of DES was associated with an increase in number of dreams (Spearman logistic regression=0.65, p=0.0001). Frequency distribution of dreams of death, aggression, waste matter, and suicide & homicide were higher among patients with DES score above 30 than those with DES score below 30, results are shown in **Table 1**.

Despite increased REM sleep in patients, there are some patients who did not complain of nightmares or did not report frequent and long lasting dreams. The dissociative background of the patient could play a role as a contributing factor to dream content in patients with major depressive disorder. A few studies exist regarding association of dissociation and depression. In one study conducted in fantasy–prone college students, showed that the fantasizer reported a higher frequency of past diagnosis of major depression (50%) than the non-fantasizer (12%), and more dissociative experiences and symptoms, as indexed by structured interview.[4] In another research, the authors examined the associations among sleep-related experiences, including dreams, dissociation, schizotypy, and the 5 personality traits in 2 large student samples. A general measure of sleep experiences was substantially correlated with both schizotypy and dissociation (especially the latter) and more weekly related to personality traits.[5]

In this research, we showed patients with major depressive disorder who had higher score of dissociative experience scale had higher rate of frequent dreams than who had lower score. In addition, the number of dreams increases with an increase in dissociative scale. We also suggested that a highly dissociative background could determine the dream contents in patients with depression. Further research is needed to clarify the role of dissociation as a one of the basic elements which could affect depressive symptoms.

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