Further Evidence for the Proposed Relationship Between Frequent Nightmares and Schizotypal Personality Organization

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The relationship between several measures of schizotypic signs and the reported frequency of nightmares was evaluated in a college student population. A significant relationship to nightmare frequency was found for three of the four schizotypy measures (somatic symptoms, perceptual aberration, and intense ambivalence). Further, the observed relationships appeared to be stronger for women than for men. There was no relationship between physical anhedonia and nightmare frequency. The results are discussed within the context of an ego boundary model and are consistent with previous research independently implicating boundary impairment in the etiology of both phenomena.

Nightmares, vivid and terrifying episodes that wake the dreamer, can be so severe that they have been likened to brief psychotic episodes (Detre & Jarecki, 1971; Fischer, Byrne, Edwards, & Kahn, 1970; Hartmann, 1984; Mack, 1970). The possible relationship between frequent nightmares and schizophrenia and/or schizotypal personality has received considerable attention (Hartmann, 1984; Hartmann, Russ, Oldfield, Sivan, & Cooper, 1987; Hartmann, Russ, Van der Kolk, Falke, & Oldfield, 1981; Kales, Kales, Soldatos, Caldwell, Charney, & Martin, 1980; Mack, 1970). The nightmare (Detre & Jarecki, 1971; Mack, 1970; Sullivan, 1962) is not only similar to an acute psychotic episode, but frequent and severe nightmares often immediately precede the onset of a psychotic episode (Arieti, 1974). Frequent nightmare sufferers produce MMPI profiles typical of schizophrenics (Hartmann et al., 1981, 1987; Kales et al., 1980) and are more likely than controls to receive a schizophrenia spectrum diagnosis based on interview data (Hartmann et al., 1981, 1987; Van der Kolk, Blitz, Burr, Sherry, & Hartmann, 1984). Hartmann (1984) also reports a greater incidence of mental illness in family members of his nightmare sufferers as compared to controls.

Hartmann (1984) hypothesized that nightmares are caused by defective ego defenses or faulty ego boundaries emanating from an incomplete or malignant internalization of early parental objects. He suggests that nightmare sufferers have permeable psychic boundaries and show inordinate interpersonal openness and a lack of higher-level defense mechanisms.

Ego boundary disturbances have likewise been implicated in the etiology of schizophrenia and pre-schizophrenia (i.e., Blatt & Wild, 1976; Federn, 1952) and can be useful concepts in explaining many of the clinical phenomena associated with these disorders (overinclusiveness, thought insertion and broadcasting, depersonalization, and estrangement). A number of studies have demonstrated a significant linear relationship between severity of ego boundary disturbance and the degree of cognitive and emotional impairment in schizophrenic patients (Blatt & Ritzler, 1974; Quinlan & Harrow, 1974). If frequent nightmares reflect internal structural deficits associated with schizophrenia and/or schizotypal personality, frequent nightmare sufferers should demonstrate the same oddities of perception and cognition as have been documented in psychosis-prone individuals.

Based on the work of Rado (1956) and Meehl (1962), the Chapmans and their colleagues have developed reliable self-report scales to identify various facets of schizotypal personality organization including anhedonia (Chapman, Chapman, & Raulin, 1976), perceptual aberration (Chapman, Chapman, & Raulin, 1978),

intense ambivalence (Raulin, 1984) and somatic symptoms (Raulin, Chapman, & Chapman, 1978). Reliability for these scales ranges from .79 to .90 (Grove, 1982) with good discriminative validity between schizophrenics, non-psychotic psychiatric outpatients, and normals (Chapman et al., 1976; 1978). Concurrent validation has also been documented with the Rorschach (Edell & Chapman, 1979), MMPI (Chapman, Chapman, & Miller, 1982), and psychiatric interviews (Chapman, Edell, & Chapman, 1980).

Given the proposed structural similarities between nightmares and psychosis, one would expect schizotypal features to be prevalent in frequent nightmare sufferers. In the present study, undergraduates completed both a nightmare frequency checklist and the four schizotypy scales mentioned above. It was predicted that frequent nightmares would be associated with high scores on the schizotypy scales. These data represent preliminary findings from a comprehensive research project investigating the degree of thought disorder and ego boundary impairment in frequent nightmare sufferers.

Method

Subjects included 669 introductory psychology students (446 females and 223 males). Each subject completed screening versions (Raulin, Van Slyck, & Rourke, 1983) of four schizotypy scales (physical anhedonia, perceptual aberration, intense ambivalence and somatic symptoms) as well as an Infrequency Scale to screen for random responders. The screening scales are shorter versions of the original scales designed to be maximally discriminating at the high end of the scale. In addition, subjects completed a six-point nightmare frequency checklist worded to tap lifetime frequency (not at all, very infrequently, once a year, few times a year, once a month, once a week, more than once a week). Nightmares were defined as "a scary dream that awakens the dreamer from sleep."

Separate analyses were conducted for each schizotypy scale without regard to subjects' scores on the other scales. High and low scorers served as the independent variables and nightmare frequency as the dependent variable. High scorers scored at least 1 1/2 standard deviations above the sample mean (7-8% of sample) while controls scored no greater than 1/2 standard deviation above the sample mean (70% of sample). Respondents whose scores fell between these levels were excluded from the data analysis.

Results

All 4 schizotypy scales showed a statistically significant relationship to nightmare frequency although physical anhedonics reported less frequent nightmares: ambivalence, $t(580) = 3.16$, $p < .01$; perceptual aberration, $t(582) = 3.19$, $p < .01$; somatic symptoms, $t(575) = 2.27$, $p < .05$; physical anhedonia $t(593) = -2.05$, $p < .05$. Most of the overall effects were due to the female subjects. While none of the tests were significant for the males, 3 of the 4 were significant for the females. Consistent with Grove (1982), the perceptual aberration scale had the highest discriminative value. Both the mean ratings of nightmare frequency and the percentage of subjects in each group who report nightmare frequency of at least once per week are presented in Table 1.

Discussion

The results provide confirmation for the hypothesis that high scorers on several measures of schizotypic signs report a higher frequency of nightmares than controls. These results are consistent with previous research on the personality of

the nightmare sufferer and provide empirical support for the proposed conceptual link in the etiology of frequent nightmares and schizotypal traits (Hartmann et al., 1981; Kales et al., 1980). Importantly, these data go beyond descriptive yet broad categorizations of psychopathological disorders and point to specific aberrations of thought and perception theoretically germane to the concept of ego boundary impairment. It is interesting to note that physical anhedonia, a trait associated with negative symptomatology such as social withdrawal (Chapman, Edell, & Chapman, 1980) and psychophysiological nonresponsivity (Simons, 1981), is predictive of low nightmare frequency. Future research will need to examine the degree to which increased nightmare frequency is specific to schizotypal personality organization rather than a concomitant by-product of generalized pathology.

Table 1
Ratings of Nightmare Frequency

	Males Control/Experimental		Females Control/Experimental	
Somatic Symptoms				
Mean Ratings	2.18 / 1.88		2.63 / 3.09	**
Frequent Nightmares[1]	2.7 / 0.0		4.5 / 11.8	
Sample Size	(182 / 8)		(352 / 34)	
Perceptual Aberration				
Mean Ratings	2.13 / 2.47		2.64 / 3.19	**
Frequent Nightmares[1]	2.8 / 5.3		5.7 / 16.2	*
Sample Size	(179 / 19)		(348 / 37)	
Physical Anhedonia				
Mean Ratings	2.24 / 1.93		2.67 / 2.67	
Frequent Nightmares[1]	3.8 / 3.7		5.8 / 13.3	
Sample Size	(156 / 27)		(396 / 15)	
Intense Ambivalence				
Mean Ratings	2.09 / 2.56		2.65 / 3.18	**
Frequent Nightmares[1]	2.3 / 12.5	*	5.0 / 20.5	***
Sample Size	(172 / 16)		(359 / 34)	

[1]Percentage of subjects reporting a nightmare frequency of once per week or more.
* $p < .05$; ** $p < .02$; *** $p < .005$

Ambivalence ("Love and hate tend to go together."), perceptual aberration ("Parts of my body occasionally seem dead or unreal.") and somatic symptoms ("I have often had a puzzling numbness in some part of my body.") can all be explained by a temporary loss or abandonment of the ego's ability to keep perceptions and thoughts distinct, particularly in times of stress. These experiences are related to episodes of depersonalization/derealization as well as illusions and feelings of estrangement and deja vu and have been extensively discussed in the clinical literature (i.e., Federn, 1952) with regards to ego boundary impairment. The finding that frequent nightmare sufferers are significantly more likely to share these experiences suggests that these subjects, all relatively well-functioning college students, may lack the capacity to maintain a consistent, firm boundary

around the mental representation of the self and differentiate separate internal representations of different external objects. An alternative hypothesis is that subjects who self-report nightmares may have increased rates of substance abuse. While the present study did not assess this directly, Levin (1987) found no difference in substance abuse between nightmare sufferers and controls. In fact, nightmare sufferers reported refraining from such usage because of previous bad experiences, perhaps another indication that artificial loosening of control may precipitate a psychotic episode.

An interesting note in the present study was the disproportionate degree to which the women contributed to the overall significance of the findings. This finding is consistent with data showing that women are significantly more likely to report having nightmares (Belicki & Belicki, 1982). Given that the base rates of schizotypal personality disorder are equal in men and women, the disproportionate effect of the female subjects on the overall data may be attributable to the fact that female nightmare responders are more disturbed by their attacks than their male counterparts and that these effects become more readily generalized to their waking experiences (i.e., elevated scores). Indeed, in an earlier study, Levin (1987) found that women reported significantly greater attention and distress to both their nightmares and non-nightmare dreams than men. Previous research has demonstrated that the degree of perceived distress may be a mediating factor in the degree of pathology associated with nightmare frequency (Belicki & Parry, 1987). While gender differences in the degree of subjective distress to nightmares was not assessed in this study, it would appear to be a worthwhile variable to investigate in further research.

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