

Nightmares, Awakening, and Dream Distress: Preliminary Evidence for a Dimensional Model from Last Night Dream Reports

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ABSTRACT – Nightmares have commonly been defined as dysphoric dreams that awaken the sleeper. However, DSM-5/DSM-5-TR criteria emphasize distress rather than awakening, suggesting that non-waking bad dreams may also be clinically meaningful. This study examined dysphoric dream experiences from the previous night in adults ($N = 311$). Eighteen percent reported a dysphoric dream; 54% of these involved awakening. Awakening from dysphoric dreams was associated with somewhat higher median dream distress levels. Partial correlations indicated that dysphoric dreams with and without awakening independently related to distress, supporting a dimensional interpretation. Gender differences were prominent in frequency patterns but did not emerge in mean-level distress. Age effects were small. Findings support the view that awakening reflects intensity but is not necessary for emotional impact. Non-awakening dysphoric dreams can produce meaningful distress and may warrant assessment in research and clinical contexts focused on nightmare vulnerability.

Keywords:

Nightmares;
Nightmare distress;
Waking criterion;
Gender differences;
Sleep and emotion

Introduction

Nightmares are commonly distinguished from bad dreams by the requirement that they awaken the sleeper (American Psychiatric Association [APA], 1994). On the other hand, bad dreams are dysphoric dreams without awakening (Zadra & Donderi, 2000). This distinction

historically reflected classification of nightmares as a parasomnia (Fleetham & Fleming, 2014) where awakening signaled pathological sleep disruption (APA, 1994). This categorical boundary, and the assumption that dysphoric dreams without awakening are qualitatively different, has been increasingly challenged and may involve an interpretive bias, e.g., ‘I woke so it must be distressing’ (Blagrove & Haywood, 2006). A growing body of research indicates that emotional disturbance may occur with or without awakening during dysphoric dreams, and that awakening may reflect a threshold of arousal rather than a distinct phenomenon (Levin & Nielsen, 2007, 2009). In response to accumulating evidence, the DSM-5 and DSM-5-TR removed the waking requirement for nightmare disorder (APA, 2013, 2022), emphasizing distress and daytime impairment instead.

Affect-distress models propose that nightmares arise from dysregulated emotional processing during sleep, with distress severity existing along a continuum (Levin & Nielsen, 2007; Zadra et al., 2006). Sleep-dependent emotion regulation frameworks similarly suggest that nightmares represent failures in affect decoupling processes (Walker & van der Helm, 2009).

Nightmares are also associated with greater negative emotion, arousal, and impaired well-being (Blagrove et al., 2004; Kelly, 2018). Nightmare treatment, particularly imagery rehearsal therapy, reduces distress (Casement & Swanson, 2012; Krakow et al., 2001; Spoormaker et al., 2006). Importantly, usually dream distress, not awakening, predicts impairment and treatment-seeking (Scarpelli et al., 2019).

Additionally, individual differences play a role. Women reliably report more nightmares, greater dream recall, and stronger emotional responses to dreams (Schredl & Göritz, 2019; Schredl & Reinhard, 2008). Age effects are less clear within young adult samples, though stress and sleep disruptions may increase vulnerability (Germain, 2013).

This brief report uses a simple, ecologically proximal approach, assessing last-night dream experience, to examine whether awakening meaningfully marks dream distress. We hypothesized that awaking dysphoric dreams would show higher distress but that non-waking dysphoric dreams would still demonstrate emotional impact. We also examined gender and age as potential moderators.

Method

Participants

Participants were 311 adults (64 male, 247 female) aged 18–45 ($M = 19.57$, $SD = 3.18$) enrolled in undergraduate social science classes. Cases with missing values were excluded pairwise.

Measures and Procedure

Participants completed the present items as part of a larger online questionnaire study examining emotional and cognitive experiences in daily life. Embedded within the survey were items assessing dysphoric dream experience from the previous night, an approach that enhances ecological validity by reducing retrospective recall biases common in dream research (Schredl, 2010).

Participants first reported whether they had a bad dream the previous night (0 = *no*, 1 = *yes*). Those endorsing a bad dream then indicated whether it awakened them (0 = *no*, 1 = *yes*) and rated their post-dream distress on a 5-point scale ranging from 0 (*not at all*) to 4 (*very much*). This distress item is consistent with the nightmare distress indicator included in the Mannheim Dream Questionnaire (MADRE), which demonstrates adequate retest reliability over 14 days (.673) and sensitivity to individual differences (Schredl et al., 2014). Participants also provided demographic information, including age and gender.

The study protocol adhered to ethical standards and the principles outlined in the Declaration of Helsinki. Participation was voluntary and anonymous, and no identifying information was collected.

Results

Dream Frequency and Awakening

Fifty-seven participants (18.3%) reported a bad dream the previous night; 31 (54.4%) of those awoke from it (see Table 1).

Table 1: Frequency of bad dream types from previous night

Category	<i>n</i>	%
No bad dream	254	81.7
Bad dream, no waking	26	8.4
Bad dream, waking	31	10.0

Note: $N = 311$

Distress Differences

Median distress was higher for waking bad dreams (3 = “quite a bit”) than non-waking bad dreams (2 = “a little”). High distress (≥ 3) occurred in 48% of waking nightmares versus 16% of non-waking bad dreams, indicating greater intensity but a continuum of emotional response (see Table 2). Nonparametric correlations supported this pattern, with waking moderately associated with higher distress (Spearman’s $\rho = .53, p < .001$). Bad dreams without waking were also related to higher distress (Spearman’s $\rho = .63, p < .001$). The difference between correlations neared but was not significant, $z = 1.84, p = .066$. After controlling waking, bad dreams without waking remained associated with distress, $r = .47, p < .001$. After controlling for having a bad dream, waking was still related to distress, $r = .30, p < .001$.

Table 2: Distress ratings of bad dreams by awakening status

Distress	Non-waking <i>n</i> (%)	Waking <i>n</i> (%)
Not at all	5 (19.2)	4 (12.9)
Not much	6 (23.1)	4 (12.9)
A little	10 (38.5)	8 (25.8)

Table 2: Distress ratings of bad dreams by awakening status

Distress	Non-waking <i>n</i> (%)	Waking <i>n</i> (%)
Quite a bit	4 (15.4)	12 (38.7)
Very much	0 (0)	3 (9.7)

Note: *n* = 57. One case with missing values for distress not included.

Gender Differences

Gender differences were notable in nightmares and emotional response. In this sample, all waking nightmares occurred among women (31 of 31; 100%), and women represented the majority of those reporting moderate-to-high distress (45 of 58 cases; 77.6% with distress ≥ 2). In contrast, 69.5% of men (41 of 59) reported no distress, compared with 72.5% of women (174 of 240) reporting non-distressing or low-distress dreams (0–1 on the scale). Thus, using raw scores, men primarily reported no or minimal distress, whereas women were more likely to report distressing dreams and awakening from them. These descriptive frequency patterns reflect prior evidence for higher nightmare vulnerability among women (see Table 3). However, at the mean level, there was no significant difference between men and women for distress, $t(297) = 0.01, p = .995$.

Table 3: Gender by bad dream type

Group	Male	Female
No bad dream	57	197
Bad dream, no waking	6	20
Bad dream, waking	0	31

Note: *N* = 311.

Age

Students reporting a bad dream were slightly older than those who did not ($M = 20.32$ vs. 19.40), $t(306) = -1.97, p = .050, d = .29$. Those awakened by a dream were also older ($M = 20.69$ vs. 19.44), $t(294) = 2.27, p = .024, d = .39$. Distress was not significantly correlated with age, $r_s = .05, p = .42$. These effects were small to medium statistically (Cohen, 1988), but the actual differences appeared small practically, (i.e., less than one year in age)

Discussion

Findings support a dimensional model of dysphoric dreaming. Both awakening and non-awakening dysphoric dreams appeared to have distress impacts. Although awakening was associated with higher post-dream distress, a substantial proportion of non-awakening dysphoric dreams also produced distress, consistent with the view that distress—not awakening—is the clinically relevant marker. These results align with DSM-5/DSM-5-TR revisions and affect-regulation models of dreaming (APA, 2013, 2022; Levin & Nielsen, 2007, 2009) that

conceptualize nightmares along a continuum of negative dream experiences rather than as a discrete categorical state.

The inferential results reinforce this dimensional interpretation. Both awakening and non-awakening dysphoric dreams showed significant associations with distress, and partial correlations demonstrated that each contributed unique variance. That is, awakening increased the likelihood of higher distress, yet distress remained significantly related to dysphoric dreaming even when awakening did not occur. Thus, awakening appears to index severity rather than define a qualitatively distinct subtype. These findings provide event-level evidence that distress and awakening are correlated but partially separable features of dysphoric dream experiences.

Importantly, this study contributes to existing work by providing ecologically proximal, last-night evidence that distress can occur even when dysphoric dreams do not awaken the sleeper. Prior research has largely relied on retrospective frequency estimates over longer periods or clinical samples; in contrast, these findings were derived from recent real-time experience sampling of nonclinical respondents. This design allows a direct comparison of waking and non-waking dysphoric dreams, reinforcing dimensional conceptualizations and supporting current diagnostic frameworks that prioritize subjective distress over awakening.

Consistent with Hartmann's continuum model of emotional dreaming (Hartmann, 1998, 2010), nightmares appear to reflect heightened emotional load rather than a categorical phenomenon. Levin and Nielsen's (2007, 2009) affect-distress model extends this perspective by identifying neurocognitive and affect-regulation mechanisms underlying nightmare vulnerability.

Descriptive frequencies showed pronounced gender differences, with women more likely to experience awakening and higher distress, consistent with established evidence for increased nightmare vulnerability and emotional dream reactivity among women (Schredl & Göritz, 2019; Schredl & Reinhard, 2008). However, inferential tests did not reveal mean-level gender differences in distress. It is important to acknowledge that inferential tests may have been constrained by modest subgroup sizes, especially for awakening events, limiting power and warranting cautious interpretation of gender effects.

Age effects were small and may reflect variability in stress exposure and sleep patterns typical of young adults rather than developmental trends per se (Lund et al., 2010). Although inferential tests were limited by the smaller subgroup reporting bad dreams, descriptive patterns were consistent with the primary hypothesis.

Clinically, these findings reinforce that non-awakening dysphoric dreams may still warrant clinical attention, as they can reflect emotional arousal and distress. Nightmare-focused interventions, including imagery rehearsal therapy, may therefore be relevant even when awakening is absent (Krakow et al., 2001; Casement & Swanson, 2012).

Limitations include the use of a student sample, unvalidated single-night recall items, and absence of personality, affective, and sleep-quality measures. Future work may incorporate dream diaries, trait affectivity measures, and objective sleep parameters to clarify mechanisms underlying distress in waking and non-waking dysphoric dreams. Replication in clinical samples may further inform diagnostic and treatment implications. Overall, the results highlight the value of assessing individual differences in dream-related distress, rather than relying solely on awakening, when characterizing nightmare vulnerability.

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