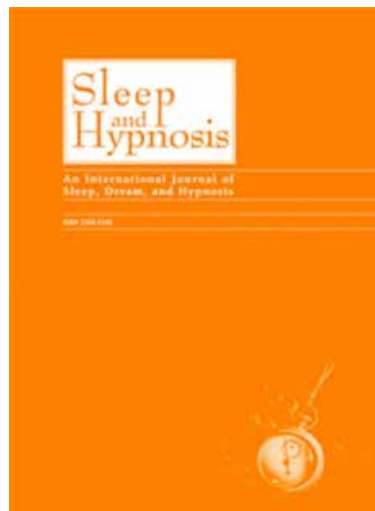


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**Some Personality Characteristics of College Students Reporting Frequent Nightmares**

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### **Abstract**

This study examined whether college students reporting frequent nightmares would score differently on scales of the Ausburg Multidimensional Personality Instrument (AMPI; Kelly, 2012) relative to a comparison group. University students ( $N=373$ ) completed the AMPI and a questionnaire to assess how frequently they experienced nightmares. The results indicated that individuals with frequent nightmares scored higher on the AMPI validity scale Unlikeliness (unusual signs of distress) and the clinical scales Somatization (frequent bodily discomforts), Dysphoria (sadness and meaninglessness), Hystericality (desire to be liked, avoidance of responsibility, and limited insight), Paranoia (interpersonal suspiciousness), Anxiousness (anxiety and stress), Schizotypic (unusual perceptual experiences), and Hypomania (high energy). Regression analyses revealed that only Schizotypic and Hypomania scores significantly predicted unique variance in experiencing frequent nightmares. The results and limitations were discussed.

**Keyword:** Nightmares, personality, dreams, mental health

Nightmares have been defined as lengthy, elaborate dreams that are associated with unpleasant emotions (American Psychiatric Association, 2013). A substantial percentage of adults have reported frequent nightmares. The occurrence of nightmares of at least once a month among nonclinical samples has ranged from 8.3% to 52% (Belicki & Belicki, 1986; Schredl, 2003).

The etiological mechanisms of nightmares have yet to be established. Freud's (1900) writings suggested that nightmares may be the result of unconscious wishes that are too disturbing to be dealt with directly and are subsequently experienced in a distressing symbolic form. Levin & Nielsen (2007) proposed a neuro-cognitive model in which individuals with a propensity for negative affect experience nightmares as the brain's attempt to extinguish fear-related memories. After observing the patterns of nightmare experiences and daily events among war veterans, Lansky (1991) posited that nightmares might be the mind's unconscious attempt to transform the dissociated waking experience of shame into the less painful and more acceptable experience of danger.

The continuity hypothesis of dreams (Domhoff, 1996) proposed that dream experiences, and nightmares, reflect waking states. There has been research support for this. For instance, nightmares have been associated with a myriad of unusual or distressing waking experiences including depression and suicidality (Cukrowicz et al., 2006), anxiety disorders (Coolidge, Segal, Coolidge, Spinath, & Gottschling, 2010), schizotypal traits (Watson, 2001), and neuroticism (Schredl, Landgraf, & Zeiler, 2003). Also in line with the continuity hypothesis are findings that nightmares were associated with some combination of waking experiences of unusual thinking and negative mood *states* rather than *traits* (Blagrove & Fisher, 2009).

Hartmann (1991) proposed that nightmares partly result from thin psychological boundaries - separations between contents of the mind such as conscious and unconscious elements. Previous studies have supported that individuals with thinner psychological boundaries experience more

unpleasant and bizarre dreams (i.e., nightmares) than those with thicker boundaries (Kunzendorf, Hartmann, Cohen, & Cutler, 1997; Miro & Martinez, 2005; Schredl, 2003).

Taken together, these models and findings suggest that nightmares provide some unconscious attempt to defend against, or work through, painful wishes or emotions that may be a continuation or result of waking emotional experiences. These experiences appear to be more common for individuals with fewer defenses against primitive, unpleasant emotional processes, i.e., those with thinner boundaries.

One limitation of previous research on nightmares has been the lack of inclusion several personality measures simultaneously, especially measures designed for nonclinical populations. The aim of the current research was to examine in a nonclinical college student sample the relationship between nightmares and several personality variables that denote waking experiences simultaneously in order to determine which ones best predict nightmares. Based on previous research, it was hypothesized that individuals classified as having nightmares would score higher than those without nightmares on scales reflecting depression, neuroticism, anxiety, and schizotypal characteristics.

## **Method**

### ***Participants and Procedure***

After obtaining informed consent, 373 (200 females) students enrolled in undergraduate psychology courses at a small American university completed the measures described below. The average age of the sample was 18.8 years ( $SD=1.4$ ).

### ***Measures***

*Ausburg Multidimensional Personality Instrument (AMPI)*. The 52-item AMPI (Kelly, 2012a, 2012b) includes 10 clinical scales measuring personality domains and three validity scales assessing respondents' approach to the test. The AMPI was intended as a brief instrument (all scales

consist of 4 items each) for nonclinical samples with content similar to the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1943). The AMPI validity scales (Kelly, 2012b) include Virtuousness (positive self-portrayal), Unlikeliness (possible feigned unusual responses), and Guardedness (defensive denial of uncomfortable experiences).

The clinical scales (Kelly, 2012a) include Somatization (attention to bodily discomfort), Dysphoria (sadness and lack of personal meaning), Hystericality (neurotic conflicts manifested in responsibility avoidance, low insight, and desire to be liked), Psychodeviance (deviant behaviors, lack of concern for others), Feminine Interests (feminine gender role interests), Paranoia (suspiciousness), Anxiousness (anxious reactions to stressors), Schizotypic (schizotypal-related experiences), Hypomania (unusually high energy levels), and Introversion (social avoidance). Participants responded to items using a 7-point scale ranging from 1="Strongly Disagree" to 7="Strongly Agree." Preliminary research has found support for the reliability and validity of the scales (Kelly, 2012a, 2012b, 2014). Hystericality was conceptualized as a representation of general neuroticism for the current study (Kelly, 2014).

*Nightmares.* Participants estimated the number of nightmares they experience. Response options were 0 = never, 1 = less than once a year, 2 = about once a year, 3 = about 2 to 4 times a year, 4 = about once a month, 5 = about 2 to 3 times a month, 6 = about once a week, 7 = several times a week. Using the International Classification of Sleep Disorders, 2nd edition criteria (American Academy of Sleep Medicine, 2005), individuals who reported more than one nightmare per week (option 7, several times a week) were assigned to the nightmare group. All other participants were assigned to the comparison group.

## **Results**

Using the criteria defined above, nine participants (2.4%) were classified as having frequent nightmares. The remaining 364 who responded to the nightmare item were used as the comparison

group. To reduce Type I error, a significance level of  $p < .01$  was set for all analyses. Comparisons of AMPI scores between the nightmare and comparison groups are presented in Table 1. As seen in the table, individuals with frequent nightmares scored significantly higher on the validity scale Unlikelihood, and the clinical scales (listed in order of decreasing strength of  $t$  ratios) Schizotypic, Hypomania, Dysphoria, Paranoia, and Anxiousness.

*Insert Table About Here*

To examine which AMPI scales accounted for the most unique variance in frequent nightmares, a stepwise regression was calculated by simultaneously entering the 13 AMPI scales as predictors and frequent nightmares (dummy coded, 1= several a week, 0=all other) as the criterion. The overall model was significant accounting for 6.7% (adj.  $R^2$ ) of the variance,  $F(13, 359)=2.9$ ,  $p < .001$ . Only the Schizotypic (Step1,  $\beta=.19$ ,  $t=3.4$ ) and Hypomania (Step 2,  $\beta=.12$ ,  $t=2.1$ ) scales loaded on steps.

### Discussion

The results were generally consistent with the hypothesis that individuals with frequent nightmares would score higher on scales measuring depression (AMPI - Dysphoria), neuroticism (Hystericality), anxiety (Anxiousness), and schizotypal (Schizotypic) characteristics and as such were consistent with previous research (Levin & Nielsen, 2007). The only hypothesized relationship that was not observed was between frequent nightmares and Hystericality, though it did near significance. The findings were also consistent with previous research involving the MMPI (Berquier & Ashton. 1992).

It was not expected that the nightmare group would obtain higher scores on the Paranoia or Hypomania scales. However, these findings make some sense. For instance, the Schizotypic and Paranoia scales were two of the most highly correlated AMPI clinical scales (Kelly, 2012a); they might both be tapping schizotypal characteristics. Indeed, suspiciousness has been included in

measures of schizotypal personality (Cohen, Matthews, Najolia, & Brown, 2010). Higher Hypomania scores for the nightmare group in the current study also were not expected. These results could be interpreted in the context of the thinner psychological boundaries that have been observed among individuals with hypomanic symptoms and nightmare sufferers (Hartmann, 1991).

Considering the continuity hypothesis, unusual waking experiences associated with schizotypal characteristics, and consistent findings of thin boundaries associated with schizophrenia-related phenomena (Hartmann, 1991), it is understandable that the AMPI Schizotypic scale was a strong predictor of nightmares in the current study. Further, given Lansky's (1991) suggestion that nightmares may be the sleeping mind's defense against the experience of shame, it is intriguing that the self-referential style of individuals high in schizotypal characteristics seems to be intermixed with the experience of shame (Lenzenweger, Bennett, & Lilienfeld, 1997) and to some extent hypomania (Morrison, 1989). It is possible, then, that individuals with schizotypal and hypomanic characteristics might possess a defensive structure that unconsciously transforms the experience of shame experienced in their waking life to the experience of danger and fear in their dreams as a means of regulating that painful emotion (Levin & Nielsen, 2007). Future research is needed to examine this possibility perhaps by examining if shame serves as a mediating variable in the relationship between nightmares and schizotypy.

The current study has several limitations which should be considered when attempting to generalize the results. For example, study utilized a college sample. Therefore, the results may not generalize to the general population. Also, the AMPI scales are very brief and, though some support for their validity has been provided (Kelly, 2012a, b, 2014) they may not fully capture the constructs they were intended to measure. Future research is needed to replicate the current findings in community samples and with more thorough instrumentation. It might also be informative to use additional nightmare measures in addition to nightmare frequency, such as nightmare distress.

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**Table 1**

*Comparison of AMPI Scores for Nightmare and Comparison Groups*

Scale	Group		<i>t</i>	<i>p</i>
	Nightmare	Comparison		
Virtuousness	12.0	13.8	1.3	.20
Unlikeliness	14.2	8.7	4.1	.001
Guardedness	14.4	15.8	.86	.40
Somatization	12.7	9.7	2.0	.05
Dysphoria	13.7	8.8	3.2	.001
Hystericality	17.2	13.9	2.2	.03
Psychodeviance	12.1	10.2	1.4	.17
Feminine Interests	13.3	13.2	0.1	.91
Paranoia	17.2	12.5	2.8	.01
Anxiousness	19.9	15.5	2.3	.01
Schizotypic	18.4	10.1	4.9	.001
Hypomania	23.2	16.3	4.0	.001
Introversion	17.2	13.9	1.7	.09

Note: *N*=373. Nightmare group included 9 participants, Comparison group included 364.