

From Falling Apart to Disturbing Dreams: A Preliminary Examination of Self-Fragmentation and Nightmares

William E. Kelly

Department of Psychology, University of the Incarnate Word

Previous theory suggested a relationship between fragmentation of the self-structure and nightmares. This article examines this possibility by providing an overview of the theoretical rationale for their relationship and a preliminary empirical study exploring the relationships between a brief measure of fragmentation proneness, distress, and nightmares among 307 undergraduate students. The results indicated that fragmentation proneness and distress were both significantly related to nightmares. Fragmentation proneness, but not distress, accounted for significant independent variance in nightmares after accounting for age and gender. These results suggest that self-fragmentation may play a role in experiencing nightmares and potentially partly explain the relationship between distress and nightmares. The results and suggestions for future research are discussed.

Keywords: nightmares, self-fragmentation, self-psychology, psychological distress

In his theory of self psychology, Kohut (1971, 1977, 1984) theorized the existence of the self, an overarching mental structure responsible for regulation and organization of subjective perception and initiative. The self provides a sense of “I” through relatively clear and consistent identity and goals linking the past, present, and future (Kohut, 1971, 1977, 1984). Though the full theory is beyond the reach of this article, aspects relevant to the current research will be outlined below.

The organization of the self is an important aspect of the theory and can be thought of as ranging on a continuum from disorganized to cohesive (Kohut & Wolf, 1978). A cohesive, or integrated, self is considered healthy and indicates consistent values, ambitions, and understanding of one’s experiences. A disorganized, or incohesive, self-structure is considered less healthy and leaves the individual susceptible to feeling aimless, empty, and easily overwhelmed by frustrations; that is, more easily distressed (Kohut, 1977).

This article was published Online First December 5, 2024.

Deirdre Barrett served as action editor.

William E. Kelly  <https://orcid.org/0000-0002-7022-6924>

The author has no conflicts of interest to disclose.

Correspondence concerning this article should be addressed to William E. Kelly, Department of Psychology, University of the Incarnate Word, 4301 Broadway, CPO 388, San Antonio, TX 78209, United States. Email: wkelly@uiwtx.edu

A disorganized self-structure is prone to fragmentation (Kohut & Wolf, 1978). Fragmentation can be described as a process in which the self becomes less organized; that is, less consistent. This experience might be expressed colloquially as “falling apart” or “coming undone” and can occur when conceptions are challenged (Kohut, 1977). More technically, fragmentation is the experience of a relative loss of integrated cohesion in conceptions of the self-narrative (Lingiardi & McWilliams, 2017) and implies a fracturing of the self into “countless pieces that cannot be easily linked together” (Berney et al., 2014, p. 436).

It should be noted that a less cohesive self is prone to fragment more often and more severely, even to the point of psychosis (Kohut & Wolf, 1978). Yet, fragmentation does not usually result in psychosis. Individuals with relatively cohesive self-structures also might experience occasional, but perhaps less severe, instances of fragmentation which leave the individual deflated and confused by their experiences and mental states rather than psychotic. A less organized self-structure may be described as having some degree of fragmentation proneness: a propensity to experience fragmentation.

The above description intimates both relationships and distinctions between fragmentation and similar psychoanalytic concepts. For instance, there is a similarity between fragmentation and the defense mechanism of splitting. Comparatively, splitting generally describes a two-dimensional fracture of the self (i.e., between “good” and “bad” aspects), whereas fragmentation suggests a more global disruption with several unintegrated conceptions (Berney et al., 2014). Both could result from difficulties of the integration function of the ego (Bellack et al., 1973). Another seemingly related concept is ego strength: the ability to remain calm in the face of external and internal stressors (Kelly & Daughtry, 2018). Though it might be expected that lower levels of ego strength leave one open to experiences of fragmentation due to weakness of the integration function, ego strength represents more global functioning of the self, not merely a tendency to fragment (Bellack et al., 1973; Besharat, 2017; Cabaniss et al., 2016). The purpose of the current study was to conduct a preliminary investigation of the relationship between fragmentation proneness and one possible outcome—nightmares.

Nightmares, readily recalled disturbing dreams that result in waking (Hartmann, 1999), are experienced “often” and “occasionally” by about 4% and 40% of the general population, respectively (Sandman et al., 2013). On days following nightmares, individuals often report negative mood as well as behavioral and cognitive effects (Lemyre et al., 2019). Nightmare etiology can be conceptualized using a disposition–stress model whereby certain individuals are more susceptible to experiencing nightmares when overwhelmed (Levin & Nielsen, 2009). Several dispositions for nightmares have been supported empirically including “thin” psychological boundaries (Hartmann, 1984; Levin, 1990; Schredl et al., 2009), heightened sensory sensitivity (Carr et al., 2021), the self-fracturing experience of trauma (Nielsen et al., 2019), and neuroticism (Schredl & Göritz, 2021). The dispositions noted above also could be interpreted as indicating a disturbance in the self-structure (Bellack et al., 1973; Durmaz & Ünsal, 2019) resulting in fragmentation.

If nightmares are related to self-structure disturbances, this might occur through several means. In terms of a disposition–stress conceptualization, the disruption of the self-structure may facilitate the activation of nightmares because of associated distress

(Blagrove & Fisher, 2009). Alternatively, Kohut (1977) suggested that nightmarish dreams are concretized representations of a fragmenting self. These “self-state dreams” are attempts to symbolize and manage the vague, existentially threatening experience of fragmentation. Havron (2019) clarified that such dreams are a means of preserving the self, attempting to bind the tension of “... situations that are dangerous to the self” (p. 130). If successful, Havron continues, these dreams maintain a degree of self-cohesion and allow for personal growth. However, nightmares generally are not considered successful dreams particularly if they result in waking (Freud, 1900/1996; Kramer, 1991; Tousignant et al., 2022). As such, if self-state dreams are attempts to represent and maintain the fragmenting self, in at least some instances, there could be a point during the dream at which their material overwhelms an already enfeebled self to become nightmares (Kelly, 2024). Wakening from the dream could lead to additional fragmentation.

Quantitative examination of self-fragmentation and nightmares has been limited. In one study, nightmare frequency was correlated with a single-item measure of fragmentation as strongly as with measures of distress and neuroticism (Kelly & Mathe, 2020). Other studies have found that states resembling fragmentation were related to nightmare frequency. For instance, Levin and Hurvich (1995) found that nightmares were related to fear of annihilation of the self. Levin (1990) found that individuals with more ego boundary impairment, conceptually similar to a less cohesive self, reported more nightmares. Similarly, relationships have been found between nightmares and Hartmann’s (1984, 1991) “thin” boundary concept (Kelly & Mathe, 2024; Pietrowsky & Köthe, 2003; Schredl et al., 2009). Consistent with the description of a less cohesive, easily fragmented self (Kohut, 1977; Kohut & Wolf, 1978), thin boundaries indicate more sensitivity, fluidity of identity, and vulnerability to stressors (Hartmann, 1991). Moreover, less ego strength has been related to more nightmares (Kelly, 2020; Levin, 1989). Finally, nightmares have been related to splitting (Yu, 2011). The latter, conceivably, could be the result of thwarted attempts to keep “bad” representations of self or other separated from “good” aspects during sleep states (Kroth et al., 1997).

A further consideration in the relationship between fragmentation proneness and nightmares is affective distress. Across several studies, affective distress has been associated with nightmares (Gieselmann et al., 2019). Further, fragmentation appears to be associated with distress (Kohut, 1977; Stav et al., 2021). Shared associations among distress, fragmentation, and nightmares might occur through several mechanisms and directions. For example, distress could lead to experiences of fragmentation which, in turn, result in nightmares through attempts to make the confusing experience of fragmentation more concrete (Kohut, 1977).

The review above suggests that individuals with a less cohesive self might experience unpleasant dreams in connection with fragmentation of the self or perceived imminent fragmentation. However, to date, this possibility has received limited direct empirical investigation. Based on the above review, it was hypothesized that a measure of fragmentation proneness would be significantly related to nightmares. Further, based on an assumption that fragmentation and distress should be related, though separable, it was hypothesized that a measure fragmentation proneness would be significantly related to nightmares independent of distress.

Method

Participants

Participants included 307 (159 female, 122 female, and 26 did not identify) students enrolled in introductory psychology courses at a university in the United States. The average age of the sample was 19.80 years ($SD = 2.55$, $Mdn = 19.00$) ranging from 18 to 49.

Measures

Nightmares

Nightmares were measured using the item “I have nightmares often” (Kelly et al., 2018). Participants responded using a 5-point scale from 0 (*strongly disagree*) to 4 (*strongly agree*). Validity has been supported by strong correlations with two measures of nightmares frequency, and moderate correlations with neuroticism, distress, and trauma symptoms (Kelly, 2022). The measure had retest reliability of .80 across 2 weeks (Kelly & Daughtry, 2021).

Fragmentation Proneness

To operationalize fragmentation proneness, a simple four-item measure of the tendency to experience fragmentation was developed following the description provided by Kohut (1977). The intention was not to devise a thorough measure to explore aspects of fragmentation, the full self-structure, or associated outcomes of fragmentation of the idealized and grandiose self, which has been done previously (e.g., Stav et al., 2021). Rather, this measure was intended to provide a brief metric for a general tendency toward fragmentation. It was reasoned that fragmentation proneness could be assessed through summative self-reports of fragmentation experiences and perceptions of an incohesive self-structure. Thus, after pilot testing among small samples of undergraduate students, the following items were selected from a larger pool and termed the Fragmentation Proneness Scale:

- “Sometimes I feel like I can’t contain myself.”
- “At times I have felt as if I were coming undone.”
- “Parts of me don’t seem to fit together very well.”
- “I don’t feel whole or complete as a person.”

Participants responded using a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Responses were summed to produce a total score. Higher scores were interpreted to indicate more fragmentation proneness.

Because the scale had not been used previously, basic psychometric indices were examined. First, because an underlying construct of fragmentation proneness was expected, items were subjected to maximum likelihood factor analysis (Tavakol & Wetzel, 2020). One factor was extracted, which accounted for 62.21% of the systematic variance (eigenvalue = 2.49). A unidimensional factor structure was confirmed by a clear “elbow” in a scree plot after the first factor. To further examine the instrument’s validity, a pilot sample of the university students ($N = 100$; $M_{age} = 19.51$, 65% female) completed the fragmentation proneness scale along with measures of ego strength (Kelly & Daughtry, 2018) and egocentricity in relationships

(Bell, 2003). The fragmentation proneness scale had a large negative correlation with ego strength ($r = -.71, p < .001$) and a comparatively small positive correlation with egocentricity ($r = .26, p = .001$). The difference between correlation coefficients was significant, $z = 4.33, p < .001$. The fragmentation proneness scale distribution was relatively normally distributed (skewness = 0.52). Taken together, these findings provide preliminary evidence for the factorial, convergent, and discriminant validity of the instrument. Coefficient α reliability in the validity pilot sample was .89.

Distress

Distress was measured using the six-item Kessler-6 Distress scale (Kessler et al., 2002). Participants indicated how often they experienced distress symptoms over the past month, for example, “worthless” and “nervous,” using a 5-point scale ranging from 0 (*none of the time*) to 4 (*all of the time*). Responses were summed to create a total score. Higher scores indicated more distress. The Kessler-6 was rigorously developed using item response theory (Kessler et al., 2002). Though brief, previous findings indicated the measure had good psychometrics including a unidimensional factor structure, good sensitivity and specificity identifying serious mental illness, and a retest reliability of .79 over 6 weeks (Kang et al., 2015).

Procedures

Participants were recruited prior to regular class meetings of undergraduate psychology courses to complete a questionnaire on “Nightmares and Personality.” After obtaining informed consent, participants completed a “paper and pencil” survey anonymously in small groups. Questionnaires were administered during regular class meetings not during weeks that included exams or quizzes. Participation was voluntary, and no incentives were offered. No time limits were imposed for questionnaire completion, and no exclusionary criteria were used.

Statistical Analyses

Analyses were conducted using SPSS 28 for Windows. Gender differences for variables were explored using t tests with Cohen’s d as a measure of effects size. Given the ordinal nature of the nightmare measure, Spearman correlations were calculated to examine the relationships between variables. An ordinal regression was calculated using nightmare scores as the criterion. Distress and fragmentation proneness scores were used as predictors along with age and gender as control variables. Because the correlation between distress and fragmentation proneness (reported below) neared the upper limits for collinearity (Hair et al., 2014), fragmentation proneness and distress scores were centered for the regression analysis (Iacobucci et al., 2016). An α level of $p < .05$ (two-tailed) was used to determine statistical significance.

Results

Means and standard deviations for nightmares, distress, and fragmentation proneness were 1.29 ($SD = 1.18$), 9.23 ($SD = 6.43$), and 9.54 ($SD = 4.49$), respectively. Coefficient α reliabilities of the distress and fragmentation proneness scales

Table 1
Frequencies for Levels of Agreement of Having Nightmares Often

Response	<i>n</i>	%
<i>Strongly disagree</i>	100	32.6
<i>Disagree</i>	86	28.0
<i>Not sure or neutral</i>	69	22.5
<i>Agree</i>	37	12.1
<i>Strongly agree</i>	15	4.9
Total	307	100.0

in the current sample were .90 and .89, respectively. Table 1 presents the frequency of responses for agreement level of having nightmares often.

Female ($M = 1.50$, $SD = 1.17$) scored significantly higher than male ($M = 0.90$, $SD = 1.11$) on nightmares ($t = 4.37$, $p < .001$, $d = 0.53$). Female ($M = 10.09$, $SD = 6.86$) also scored higher than male ($M = 7.82$, $SD = 5.47$) on distress ($t = 3.00$, $p = .003$, $d = 0.36$). Differences for female ($M = 9.82$, $SD = 4.84$) and male ($M = 8.90$, $SD = 3.95$) were not significantly different for fragmentation proneness ($t = 1.71$, $p = .088$, $d = 0.21$). Age was not significantly correlated with nightmares ($r_s = .07$, $p = .251$), distress ($r_s = .22$, $p = .700$), or fragmentation proneness ($r_s = .01$, $p = .947$).

Nightmares were significantly correlated with distress ($r_s = .31$, $p < .001$) and fragmentation proneness ($r_s = .26$, $p < .001$). Distress and fragmentation proneness were strongly, significantly correlated ($r_s = .71$, $p < .001$). The correlation between centered fragmentation proneness and distress terms was $r_s = .64$, $p < .001$.

Ordinal regression results are presented in Table 2. As seen in the table, fragmentation proneness significantly independently predicted nightmares after accounting for distress, age, and gender. Distress approached but did not reach significance. Though not originally planned, a follow-up exploratory regression was calculated to examine if fragmentation proneness and distress interacted to predict nightmares. For this analysis, the ordinal regression using the centered terms was recalculated predicting nightmares adding an interaction variable of Fragmentation Proneness \times Distress. These results are presented in Table 3. As shown in the table, again, age, gender, and fragmentation proneness significantly predicted nightmares, but distress and the interaction of distress and fragmentation proneness did not.

Discussion

As hypothesized, the results supported an association between fragmentation proneness and nightmares independent of distress, age, and gender. Given the lack

Table 2
Ordinal Regression With Distress and Fragmentation Proneness Predicting Nightmares

Variable	<i>SE</i>	χ^2	<i>p</i>
Age	0.04	10.10	.001
Gender (1 = male, 2 = female)	0.23	18.99	<.001
Distress	0.02	3.10	.078
Fragmentation proneness	0.06	8.24	.004

Note. $\chi^2(4) = 59.23$, $p < .001$, $R^2 = .185$. R^2 = Nagelkerke pseudo R^2 .

Table 3
Exploratory Ordinal Regression Predicting Nightmares Including Interaction of Distress and Fragmentation Proneness

Variable	SE	χ^2	p
Age	0.04	10.47	.001
Gender (1 = male, 2 = female)	0.23	19.26	<.001
Distress	0.02	3.18	.075
Fragmentation proneness	0.06	7.62	.006
Distress \times Fragmentation Proneness	0.00	0.18	.668

Note. $\chi^2(4) = 54.41$, $p < .001$, $R^2 = .186$. R^2 = Nagelkerke pseudo R^2 .

of significant interaction in the exploratory analysis, it is possible that distress and fragmentation proneness influence nightmares in an additive fashion rather than an interaction. Also, given the lack of significance of distress after accounting for fragmentation, it is also possible that fragmentation, at least partly, accounts for the relationship between distress and nightmares. Mediational and longitudinal research would be needed to substantiate and further clarify this.

The findings of an independent relationship between nightmares and fragmentation proneness are in line with previous studies. Kelly and Mathe (2020) reported that a single-item measure of fragmentation was related to nightmares. Moreover, previous research empirically related nightmares to variables which appear conceptually similar to fragmentation proneness and related variables such as thin psychological boundaries (Hartmann, 1991; Kelly & Mathe, 2024; Pietrowsky & Köthe, 2003), ego strength and ego boundary impairments (Kelly, 2020; Levin, 1989, 1990), and more self-annihilation anxiety (Levin & Hurvich, 1995). With regard to influences of distress, the present results were consistent with Blagrove and Fisher’s (2009) findings that thinner boundaries of the self may create nightmares additively with distress.

On a theoretical level, the current findings were consistent with Kohut’s (1977) theory that fragmentation of the self may influence nightmarish dreams. However, the reason for this remains unclear. It could be that nightmares are sleeping concretizations, which partly serve to manage the terror of a fragmenting self (Kelly, 2024; Kohut, 1977). However, the current results cannot confirm this. The inclusion of a measure of concretization would be needed to examine this further. It is also possible that a less cohesive, fragmentation prone self might make the individual susceptible to experiencing more nightmares through other mechanisms. For instance, fragmentation proneness may indicate thinner boundaries of the self-structure, which allow unpleasant affects and information to cross into awareness during sleep states (Hartmann, 1984, 1991). Further, fragmentation proneness may relate to more sensory sensitivity, which facilitates nightmares during times of distress (Carr et al., 2021). Still further, fragmentation proneness might indicate that a less organized set of mental representations (i.e., looser associations of thoughts and memories) might, in turn, increase activation of fear memories and imagery to create nightmares (Kelly, 2023; Levin & Nielsen, 2009).

The strong relationship between distress and fragmentation proneness warrants comment. From a conceptual standpoint, fragmentation proneness seems to indicate periods of heightened disorganization of representations of the self and others (Kohut, 1977, 1984). Distress seems to indicate a period of being overwhelmed and feeling unable to cope, which creates psychological discomfort (Ridner, 2004). These are likely related

concepts which might influence each other, as evidenced by the strong correlation in the current study. It could be that individuals with a “weaker” self-structure are more easily overwhelmed by circumstances and threatening mentation leading to fragmentation which, in turn, results in what is typically considered distress. On the other hand, Kohut (1977) posited that distressing events may result in fragmentation. Studies with more sophisticated methodologies are needed to examine these possibilities.

It also is possible that fragmentation proneness and distress could be off-shoots of a latent variable, which also influences nightmares. This may have influenced the current results. Neuroticism would be a possible underlying variable influencing fragmentation, distress, and nightmares. While neuroticism might make one susceptible to distress (Ormel et al., 2013), it is theoretically debatable as to whether neuroticism or the self-structure have primacy. Psychoanalysis has long suggested that the inner workings and structure of the self are foundational for experiences of both neurosis and psychosis (Fink, 2017). Conversely, many trait-based researchers argue that neuroticism is a general fundamental factor of personality, which accounts for specific negative affectivity traits and psychopathologies without the explanatory need for a self-structure (Widiger & Oltmanns, 2017).

Ego strength is another possible latent variable which could contribute to both distress and fragmentation proneness. As noted above, in preliminary work, fragmentation proneness correlated strongly with ego strength. Also, ego strength has been strongly correlated with distress (Kelly, 2020). These findings are consistent with the possibility that distress and fragmentation proneness are a function of ego strength. This warrants additional systematic research. Finally, a psychobiological model also should not be overlooked. From a biological perspective, nightmares, fragmentation, and distress could represent threat reactions of the autonomic nervous system (Ellis, 2023).

The current study has several limitations, which should be considered. For instance, all data were self-reported, which may have limited their accuracy. Further, the measures were relatively brief, which limits their ability to fully capture the complex constructs being assessed. Similarly, the nightmare measure consisted of a single-item retrospective assessment. Though retrospective single-item nightmare measures are typical, they risk increased error, a lack of variability, and may be less accurate than prospective diaries (Robert & Zadra, 2008). The sample was a further limitation. Consisting primarily of relatively young and educated individuals (university students), this sample might not be representative of the general population, limiting generalizability. Finally, the measure of fragmentation proneness should be acknowledged as a potential limitation. Though its psychometrics appears promising, the instrument is relatively brief and was not extensively validated.

It would be useful for future research to replicate the study using a larger representative community sample. Given that clinical populations are theorized to experience more fragmentation (Kohut, 1977), it would seem useful to replicate the study using a clinical sample as well. The use of a prospective nightmare measure would also be useful in future research. Future research should also include measures of trauma symptomatology, neuroticism, ego strength, and splitting as possible contributing variables. Further, the inclusion of measures of boundary thinness, sensory sensitivity, and self-structure would provide contexts in which fragmentation is related to nightmares. Longitudinal work would allow more understanding of possible direction of relationships between fragmentation and nightmares. Finally, additional study of the fragmentation proneness scale is to validate and better understand its meaning.

References

- Bell, M. (2003). Bell object relations inventory for adolescents and children: Reliability, validity, and factorial invariance. *Journal of Personality Assessment*, 80(1), 19–25. https://doi.org/10.1207/S15327752JPA8001_09
- Bellack, L., Hurvich, M., & Gediman, H. (1973). *Ego functions in schizophrenics, neurotics, and normals*. Wiley.
- Berney, S., de Roten, Y., Beretta, V., Kramer, U., & Despland, J. N. (2014). Identifying psychotic defenses in a clinical interview. *Journal of Clinical Psychology*, 70(5), 428–439. <https://doi.org/10.1002/jclp.22087>
- Besharat, M. (2017). Development and validation of ego strength scale: A preliminary study. *Journal of Psychological Science*, 15(60), 445–467. <https://psychologicalscience.ir/article-1-163-en.html>
- Blagrove, M., & Fisher, S. (2009). Trait–state interactions in the etiology of nightmares. *Dreaming*, 19(2), 65–74. <https://doi.org/10.1037/a0016294>
- Cabaniss, D. L., Douglas, C. J., Schwartz, A., & Cherry, S. (2016). *Psychodynamic psychotherapy: A clinical manual* (2nd ed.). Wiley.
- Carr, M., Matthews, E., Williams, J., & Blagrove, M. (2021). Testing the theory of Differential Susceptibility to nightmares: The interaction of Sensory Processing Sensitivity with the relationship of low mental wellbeing to nightmare frequency and nightmare distress. *Journal of Sleep Research*, 30(3), Article e13200. <https://doi.org/10.1111/jsr.13200>
- Durmaz, Y. Ç., & Ünsal, G. (2019). Study of validity, reliability in accordance with Turkey conditions in ego functions assessment scale. *Perspectives in Psychiatric Care*, 55(3), 509–516. <https://doi.org/10.1111/ppc.12357>
- Ellis, L. A. (2023). Solving the nightmare mystery: The autonomic nervous system as missing link in the aetiology and treatment of nightmares. *Dreaming*, 33(1), 45–74. <https://doi.org/10.1037/drm0000224>
- Fink, B. (2017). *A clinical introduction to Freud: Techniques for everyday practice*. Wiley.
- Freud, S. (1900/1996). *The interpretation of dreams*. Random House.
- Gieselmann, A., Ait Aoudia, M., Carr, M., Germain, A., Gorzka, R., Holzinger, B., Kleim, B., Krakow, B., Kunze, A. E., Lancee, J., Nadorff, M. R., Nielsen, T., Riemann, D., Sandahl, H., Schlarb, A. A., Schmid, C., Schredl, M., Spoormaker, V. I., Steil, R., ..., Pietrowsky, R. (2019). Aetiology and treatment of nightmare disorder: State of the art and future perspectives. *Journal of Sleep Research*, 28(4), Article e12820. <https://doi.org/10.1111/jsr.12820>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis* (7th ed.). Pearson.
- Hartmann, E. (1984). *The nightmare*. Basic Books.
- Hartmann, E. (1991). *Boundaries in the mind: A new psychology of personality*. Basic Books.
- Hartmann, E. (1999). The nightmare is the most useful dream. *Sleep and Hypnosis*, 1(4), 199–203. <https://www.sleepandhypnosis.org/ing/abstract.aspx?MkID=33>
- Havron, E. (2019). About three “self-state dreams”. *International Journal of Dream Research*, 12(1), 130–133. <https://doi.org/10.11588/ijodr.2019.1.51839>
- Iacobucci, D., Schneider, M. J., Popovich, D. L., & Bakamitsos, G. A. (2016). Mean centering helps alleviate “micro” but not “macro” multicollinearity. *Behavior Research Methods*, 48(4), 1308–1317. <https://doi.org/10.3758/s13428-015-0624-x>
- Kang, Y. K., Guo, W. J., Xu, H., Chen, Y. H., Li, X. J., Tan, Z. P., Li, N., Gesang, Z. R., Wang, Y. M., Liu, C. B., Luo, Y., Feng, J., Xu, Q. J., Lee, S., & Li, T. (2015). The 6-item Kessler psychological distress scale to survey serious mental illness among Chinese undergraduates: Psychometric properties and prevalence estimate. *Comprehensive Psychiatry*, 63, 105–112. <https://doi.org/10.1016/j.comppsy.2015.08.011>
- Kelly, W. E. (2020). Nightmares and ego strength revisited: Ego strength predicts nightmares above neuroticism and general psychological distress. *Dreaming*, 30(1), 29–44. <https://doi.org/10.1037/drm0000118>
- Kelly, W. E. (2022). Validity and reliability of a self-report Likert-type measure of nightmare frequency. *Journal of Sleep Sciences*, 7(3–4), 75–79. [https://doi.org/10.18502/jss.v7i\(3-4\).15249](https://doi.org/10.18502/jss.v7i(3-4).15249)
- Kelly, W. E. (2023). Clarifying negative affect and distressing past imagery in predicting nightmare frequency. *International Journal of Dream Research*, 16(2), 173–176. <https://doi.org/10.11588/ijodr.2023.2.93949>
- Kelly, W. E. (2024). Exploring the role of a concretizing style and its manifestations in nightmare etiology: A cross-sectional study. *Psychiatry and Behavioral Sciences*, 14(1), 1–10. <https://doi.org/10.5455/PBS.20231217074456>
- Kelly, W. E., & Daughtry, D. (2018). A shorter short version of Barron’s Ego Strength Scale. *College Student Journal*, 52(2), 227–231. <https://eric.ed.gov/?q=18&id=EJ1180199>
- Kelly, W. E., & Daughtry, D. (2021). Gender differences in retrospective nightmare frequency among young adults: Effects of nightmare distress and affective distress. *International Journal of Dream Research*, 14(1), 131–135. <https://doi.org/10.11588/ijodr.2021.1.73786>

- Kelly, W. E., & Mathe, J. R. (2020). Comparison of single- and multiple-item nightmare frequency measures. *International Journal of Dream Research*, 13(2), 136–142. <https://doi.org/10.11588/ijodr.2020.2.64362>
- Kelly, W. E., & Mathe, J. R. (2024). Revisiting trait and state predictors of nightmare frequency and nightmare distress. *Dreaming*, 34(3), 242–256. <https://doi.org/10.1037/drm0000266>
- Kelly, W. E., Mathe, J. R., & Yu, Q. (2018). Specific versus scaled estimates: A comparison of two approaches to measuring retrospective nightmare frequency. *International Journal of Dream Research*, 11(2), 203–206. <https://doi.org/10.11588/ijodr.2018.2.48486>
- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S. L. T., Walters, E. E., & Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32(6), 959–976. <https://doi.org/10.1017/s0033291702006074>
- Kohut, H. (1971). *The analysis of the self*. International Universities Press.
- Kohut, H. (1977). *The restoration of the self*. International Universities Press.
- Kohut, H. (1984). *How does analysis cure?* University of Chicago Press. <https://doi.org/10.7208/chicago/9780226006147.001.0001>
- Kohut, H., & Wolf, E. S. (1978). The disorders of the self and their treatment: An outline. *The International Journal of Psychoanalysis*, 59(4), 413–425. <https://psycnet.apa.org/record/1991-57508-001>
- Kramer, M. (1991). The nightmare: A failure in dream function. *Dreaming*, 1(4), 277–285. <https://doi.org/10.1037/h0094339>
- Kroth, J., Jensen, L., & Haraldsson, M. (1997). Correlations of splitting and phobic anxiety with dreaming. *Perceptual and Motor Skills*, 85(1), 333–334. <https://doi.org/10.2466/pms.1997.85.1.333>
- Lemyre, A., St-Onge, M., & Vallières, A. (2019). The perceptions of nightmare sufferers regarding the functions, causes, and consequences of their nightmares, and their coping strategies. *International Journal of Dream Research*, 12(2), 35–48. <https://doi.org/10.11588/ijodr.2019.2.62396>
- Levin, R. (1989). Relations among nightmare frequency and ego strength, death anxiety, and sex of college students. *Perceptual and Motor Skills*, 69(3, Pt 2), 1107–1113. <https://doi.org/10.1177/00315125890693-208>
- Levin, R. (1990). Ego boundary impairment and thought disorder in frequent nightmare sufferers. *Psychoanalytic Psychology*, 7(4), 529–543. <https://doi.org/10.1037/0736-9735.7.4.529>
- Levin, R., & Hurvich, M. S. (1995). Nightmares and annihilation anxiety. *Psychoanalytic Psychology*, 12(2), 247–258. <https://doi.org/10.1037/h0079625>
- Levin, R., & Nielsen, T. (2009). Nightmares, bad dreams, and emotion dysregulation: A review and new neurocognitive model of dreaming. *Current Directions in Psychological Science*, 18(2), 84–88. <https://doi.org/10.1111/j.1467-8721.2009.01614.x>
- Lingiardi, V., & McWilliams, N. (Eds.) (2017). *Psychodynamic diagnostic manual: PDM-2* (2nd ed.). The Guilford Press.
- Nielsen, T., Carr, M., Picard-Deland, C., Marquis, L. P., Saint-Onge, K., Blanchette-Carrière, C., & Paquette, T. (2019). Early childhood adversity associations with nightmare severity and sleep spindles. *Sleep Medicine*, 56, 57–65. <https://doi.org/10.1016/j.sleep.2019.03.004>
- Ormel, J., Jeronimus, B. F., Kotov, R., Riese, H., Bos, E. H., Hankin, B., Rosmalen, J. G. M., & Oldehinkel, A. J. (2013). Neuroticism and common mental disorders: Meaning and utility of a complex relationship. *Clinical Psychology Review*, 33(5), 686–697. <https://doi.org/10.1016/j.cpr.2013.04.003>
- Pietrowsky, R., & Köthe, M. (2003). Personal boundaries and nightmare consequences in frequent nightmare sufferers. *Dreaming*, 13(4), 245–254. <https://doi.org/10.1023/B:DREM.0000003146.11946.4c>
- Ridner, S. H. (2004). Psychological distress: Concept analysis. *Journal of Advanced Nursing*, 45(5), 536–545. <https://doi.org/10.1046/j.1365-2648.2003.02938.x>
- Robert, G., & Zadra, A. (2008). Measuring nightmare and bad dream frequency: Impact of retrospective and prospective instruments. *Journal of Sleep Research*, 17(2), 132–139. <https://doi.org/10.1111/j.1365-2869.2008.00649.x>
- Sandman, N., Valli, K., Kronholm, E., Ollila, H. M., Revonsuo, A., Laatikainen, T., & Paunio, T. (2013). Nightmares: Prevalence among the Finnish General Adult Population and War Veterans during 1972–2007. *Sleep*, 36(7), 1041–1050. <https://doi.org/10.5665/sleep.2806>
- Schredl, M., Bocklage, A., Engelhardt, J., & Mingebach, T. (2009). Psychological boundaries, dream recall, and nightmare frequency: A new Boundary Personality Questionnaire (BPQ). *International Journal of Dream Research*, 2(1), 12–19. <https://doi.org/10.11588/ijodr.2009.1.162>
- Schredl, M., & Göritz, A. S. (2021). Stability of nightmare frequency and its relation to neuroticism: A longitudinal study. *Journal of Sleep Research*, 30(3), Article e13126. <https://doi.org/10.1111/jsr.13126>
- Stav, O. S., Mikulincer, M., & Sharabany, R. (2021). Studying self-fragmentation from Kohut's self psychology perspective: Development and validation of the Fragmented Self Inventory. *Psychoanalytic Psychology*, 38(1), 39–48. <https://doi.org/10.1037/pap0000309>

- Tavakol, M., & Wetzel, A. (2020). Factor Analysis: A means for theory and instrument development in support of construct validity. *International Journal of Medical Education*, 11, 245–247. <https://doi.org/10.5116/ijme.5f96.0f4a>
- Tousignant, O. H., Glass, D. J., Suvak, M. K., & Fireman, G. D. (2022). Nightmares and nondisturbed dreams impact daily change in negative emotion. *Dreaming*, 32(3), 292–313. <https://doi.org/10.1037/drm0000213>
- Widiger, T. A., & Oltmanns, J. R. (2017). Neuroticism is a fundamental domain of personality with enormous public health implications. *World Psychiatry*, 16(2), 144–145. <https://doi.org/10.1002/wps.20411>
- Yu, C. K.-C. (2011). The mechanisms of defense and dreaming. *Dreaming*, 21(1), 51–69. <https://doi.org/10.1037/a0022867>

E-Mail Notification of Your Latest Issue Online!

Would you like to know when the next issue of your favorite APA journal will be available online? This service is now available to you. Sign up at <https://my.apa.org/portal/alerts/> and you will be notified by e-mail when issues of interest to you become available!