

Impact of Childhood Trauma on Dreams in Adulthood: An Argentine Survey

Alejandro Parra

Facultad de Psicología, Universidad Isalud

The aim of this study was to assess whether participants who present more frequently with nightmares or distressing dreams have had traumatic experiences in their childhood and their relationship with current personality traits. Three instruments were administered to a sample of 446 adults from the Argentine population: the Dreams Questionnaire, Negative Childhood Experiences Questionnaire, and an abbreviated version of the Symptoms Assessment. The results showed that participants presented specific dream content, such as hearing voices/music in dreams (88%), lucid dreams (79%), night terrors (64%), evil/demonic presences (61%), and dreams about a traumatic events (40%). The results also showed a correlation between the frequency of dream experiences and parental maltreatment (emotional, sexual, and physical abuse) and a positive and significant correlation between dream recall with propensity for mental health vulnerability symptoms, which confirmed the two main hypotheses. In addition, a gender difference showed that males tended to have greater dream recall compared to females, and females tended to show predominantly more auditory dreams and night terrors compared to males.

Keywords: nightmares, childhood trauma, mental health, disturbing dreams

According to Clara Hill's model (Hill & Rochlen, 2002), dreams are experiences that represent significant life experiences and unresolved conflicts that intrude on the attention of the sleeper. The authors also postulate that dreams are unique to each individual and therefore cannot be interpreted through standardized symbols. As an alternative, he proposes the "cognitive-experiential" model, which integrates the psychoanalytic theory of the patient's own interpretation and feelings with cognitive psychology, which studies the thought patterns that are formed and stored by memory

Deirdre Barrett served as action editor.

Alejandro Parra  <https://orcid.org/0000-0001-7943-2794>

We are grateful to the Bial Foundation for its financial support of this research project (Grant 08/18). We thank Juan Carlos Argibay for his methodological advices.

Alejandro Parra served as lead for conceptualization.

Correspondence concerning this article should be addressed to Alejandro Parra, Facultad de Psicología, Universidad Isalud, Venezuela 931 C1095AAS, Ciudad Autónoma de Buenos Aires, Argentina. Email: rapp_ale@fibertel.com.ar

(Hill & Rochlen, 2002). A type of disturbing dream popularly known as “nightmare” may be associated with psychopathology, particularly in young adults (Aquino Cías & Alonso López, 2006; López Romera, 2006). Navarro Egea (2006) defined them as: “intense and fearful dreams,” which may awaken leaving an acute sensation of fear and anxiety, almost always projecting emotional disorders or conflicts, and 50% of adults have had nightmares at some time in their lives (López Romera, 2006). Parra (2023) differentiated “nightmares” from “night terrors” considering that the former occurs in a rapid eye movement (REM) phase of sleep (zero muscle tone), while the latter are disorders typical of non-REM sleep.

Miró-Morales and Martínez Narváez (2004) argued that nightmares usually appear after the second half of the night when the REM phase lasts longer and generates a subjective discomfort that can produce deterioration in different areas of the sufferer because they can lead to the presence of high levels of anxiety, various fears, feelings of helplessness, and a worsening in the quality of sleep. On the other hand, people who suffer from nightmares may present deterioration in their daytime functioning because of the anguish that may be associated with the memory of the dream, physical fatigue because of the interruption in the sleep cycle, and the worries that are generated about the state of their own mental health (Miró-Morales & Martínez Narváez, 2004).

Disturbing dreams are vivid dreams characterized by intense negative emotions such as fear, anxiety, and anger (Levin & Nielsen, 2007; Zadra et al., 2006). Disturbing dreams, including nightmares and dreams of distress, are among the most frequent symptoms of trauma victims and dream-related disorders. They can persist for years and even decades after the trauma (Mellman & Hipolito, 2006; Schreuder et al., 2000). The frequency with which trauma-related sleep disorders are experienced over time can vary depending on the severity of the trauma, the degree of exposure to the trauma, and the associated danger (Duval & Zadra, 2010; Wood et al., 1992). Childhood abuse constitutes one of the best-documented chronic traumas so the impact on behavioral, psychological, and social variables can appear throughout an individual’s development (Cicchetti & Lynch, 1995; Margolin & Gordis, 2000), and children who are victims of abuse and neglect are at greater risk for developing psychopathology and psychological distress in adulthood (Banyard et al., 2001). Other authors (Bearden, 1994) consider that there is some similarity between nightmares and psychotic disorders such as schizophrenia. This author suggests that nightmares could represent a transition between normality and psychotic disorder at the oneiric level. On the other hand, the importance of early diagnosis and treatment for nightmares could serve to detect and prevent possible psychotic episodes (Miró-Morales & Martínez Narváez, 2004).

However, few studies have investigated the frequency and correlates of adult disturbing dreams and their relationship to childhood trauma. Indeed, the frequency of disturbing dreams and wakefulness-generating distress dreams and nightmares (dreamer’s restlessness reactions during waking hours to the experience of the disturbing dream) are moderately correlated and that stress predicts waking psychopathology (e.g., Belicki, 1992; Blagrove et al., 2004; Levin & Nielsen, 2007). Distress related to disturbing dreams may reflect a personality characterized by heightened reactive emotional distress (Levin & Nielsen, 2007) and possibly mediates the relationship between disturbing dream frequency and psychopathology.

By definition, nightmares are frightening dreams that awaken a dreamer to dreaming (Zadra et al., 2006) or, more precisely, to the REM state (Levin &

Nielsen, 2007). Nightmare and distress dreams are on the same continuum, but the former can be clearly memorized and recalled upon awakening because of its distinct intensity of emotion (Levin & Nielsen, 2007; Schredl, 2003, 2006), fear-provoking features (Zadra et al., 2006), and association with psychopathological symptoms (Zadra & Donderi, 2000). Undoubtedly, in addition to being related to anxiety and distress, nightmares have been associated with a wide spectrum of psychological disorders and negative traits in relation to psychopathologies, such as posttraumatic stress disorder (Ohayon et al., 1997), depression (Levin, 1998), schizophrenia (Berquier & Ashton, 1992; Levin & Fireman, 2002), and dissociative disorder (Berquier & Ashton, 1992; Molina, 1996). Generally speaking, people with mental health problems may have predisposed personal distress and anxiety, which significantly affects their quality of sleep and daily life (Levin & Nielsen, 2009). Nightmares become the sign of their mental conditions and, in turn, intensify their stress and anxiety levels.

Consequently, health professionals should be aware of individuals who have a high frequency of nightmares in order to improve their diagnostic quality in clinical practice. The question here is to what extent do traumatic events in childhood trigger nightmares and how do nightmares enhance the development of psychopathology in adulthood? The aim of this study is to evaluate individuals in the general population who experience nightmares and dreams of distress (disturbing dreams) in relation to childhood traumatic experiences and their effect on present mental health.

The hypotheses are that (H1) a positive and significant correlation will be found between disturbing dream experiences and the degree of childhood maltreatment; in other words, childhood traumas produce a higher frequency of nightmares in adulthood, (H2) a positive and significant correlation will be found between dreams (total of the frequency of dream experiences) and the degree of indicators of psychopathology; in other words, individuals who score high on psychopathological traits will tend to produce a higher frequency of nightmares, and (H3) a positive and significant correlation will be found between childhood trauma and an increase in the degree of psychopathology (measured with the Symptoms Assessment [SA-45]) in individuals who present a higher frequency of dreams; in other words, childhood trauma increases the risk of suffering a greater number of psychopathological symptoms in frequent dreamers.

Method

Participants

The sample consisted of 446 cases, 73 (16.4%) males and 373 (83.6%) females, whose age range was 18–55 years ($M = 36.06$, $SD = 9.56$). The sample was recruited through two sources, 81 (18%) cases in printed format (distribution of questionnaires between July and November 2023) and 365 (82%) received through an online platform generated by Google Survey. For the printed format, the three hand-delivered instruments were distributed and instructions were given for completion. Both formats (printed and online) included an informed consent. Due to the nature of the responses given, particularly the Childhood Trauma Questionnaire, the data were treated with confidentiality and anonymity in their responses.

Instruments

The Dream Questionnaire-Form A (Parra, 2009, 2014) assesses 17 types of dreams using the classification created by van de Castle (1994) with a Likert-type response scale ranging from 0 = *never* to 3 = *almost always*. For the present study, only six questions were selected from the original 17; three questions connoting predominantly “negative” dreams (evil/demonic presence, dreams repeating a traumatic event, and night terrors), two connoting dreams with a more positive or benign tone (dreams lucid and hearing voices/music), and dreams that can have both negative and positive connotations (recurrent dreams). For the present study, a score was also obtained to obtain a total score by summing the responses for each type of dream response (range = 0–18, $M = 7.44$, $SD = 2.79$). The questionnaire has high discriminant validity and reliability value with a Cronbach’s $\alpha = .83$ (Parra, 2023).

Childhood Trauma Questionnaire (Bernstein et al., 1994, 1997; Fink et al., 1995)

It is a self-administered retrospective profile questionnaire that measures the degree of abuse suffered during childhood. The factors it assesses are three types of abuse (physical, emotional, and sexual) and two types of neglect (physical and emotional), and a total score (except for traumatic events such as death of a parent or serious illness). The questionnaire contains 28 items that are answered with a 4-point Likert scale (0 = *never*, 1 = *once*, 2 = *sometimes*, and 3 = *almost always*), indicating that the higher the score, the higher the degree of child maltreatment. It has high discriminant validity (Bernstein et al., 1997) and the reliability value obtained a Cronbach’s $\alpha = .93$ (Parra & Ugarte, 2018; see also Parra, 2023).

SA-45 (Sandin, 2008)

It is an instrument derived from the symptom checklist-90 that assesses 45-item psychopathological symptoms with a 5-point Likert-type response scale (0 = *has not bothered you at all* to 4 = *has bothered you a lot*). It consists of nine scales of five items each assessing the same dimensions as the symptom checklist-90: somatization, obsession compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. Cronbach’s α coefficient for the total SA-45 for the present sample was .95.

Results

Regarding the frequency of dream recall, almost half reported dreaming “Almost every morning” to “Once or twice a week” (both 65%), and the sharpness of their dreams was shown to be “very to moderately” clear and intense (79%; see Table 1).

Regarding the type of dreams, 88% reported hearing voices/music in dreams, 61% experienced evil/demonic presences in dreams, 73% had recurrent dreams, 79% had lucid dreams, 40% had dreams repeating a traumatic event, and 64% experienced night terrors (see Table 2).

A hypothesis test on the normality of the variables was carried out using a Kolmogorov–Smirnov analysis (> 100 cases). From the values obtained, a highly asymmetric distribution of the scores of the three instruments was assumed.

Table 1
Frequency of Recall and Dream Clarity

Recall and clarity	<i>N</i>	%
I recall		
Almost every morning	94	21.1
Once or twice a week	198	44.4
Once or twice a month	83	18.6
Almost never	71	15.9
Sharpness and clarity		
Perfectly clear and intense as reality	91	20.4
Moderately clear and vivid	266	59.6
Unclear and vivid	66	14.8
Vague and diffuse	22	4.9
So vague and diffuse that it is impossible to discern	1	0.2

Consequently, it was decided to use for statistical analysis the Mann–Whitney *U* test to compare groups and Spearman’s *r* to correlate the scores of the scales.

H1 predicts that a positive and significant correlation would be found between the Dream Index (sum of the frequency of dream experiences) and the degree of child maltreatment, which was confirmed ($r_s = .23, p < .001$). Significant correlations were also found in abuse ($r_s = .22, p < .001$), but not in neglect with the Dream Index, as well as correlations with dream types, such as hearing voices/music in dreams ($r_s = .09, p < .037$), evil/demonic presence ($r_s = .13, p = .004$), recurrent dreams

Table 2
Dream Experience Types

Experience types	<i>N</i>	%
Hearing voices/music in dreams		
Never	52	11.7
Once	34	7.6
Sometimes	264	59.2
Almost always	96	21.5
Evil/demonic presence in dreams		
Never	172	38.6
Once	102	22.9
Sometimes	165	37.0
Almost always	7	1.6
Recurring dreams		
Never	116	26.0
Once	100	22.4
Sometimes	210	47.1
Almost always	20	4.5
Lucid dreams		
Never	94	21.1
Once	76	17.0
Sometimes	245	54.9
Almost always	0	0
Dreams repeating a traumatic event		
Never	264	59.2
Night terrors		
Never	161	36.1
Once	94	21.1
Sometimes	180	40.4
Almost always	11	2.5

Table 3
Correlation Between Frequency of Dreams and Child Abuse

Variable	Hearing voices/ music	Presence malignant/ demonic	Recurrent	Lucid	Repeat event traumatic	Terrors nocturnal	Dreams
Physical abuse	.05	.07	.09	.01	.09	.02	.11**
Emotional abuse	.12	.12*	.14**	.15**	.15***	.03	.22***
Sexual abuse	.06	.11*	.04	.06	.05	.07	.12**
Physical abuse	.02	.02	.06	.07	.01	.03	.08
Emotional abuse	.02	.005	.07	.02	.05	.03	.05
F1. Abuse	.12**	.12**	.16***	.12***	.14***	.03	.22***
F2. Abandonment	.006	.02	.08	.05	.02	.03	.07
Child abuse	.09*	.13**	.16***	.14**	.13**	.05	.23***

Note. Bonferroni correction = adjusted $p = .03$.
* $p < .05$. ** $p < .01$. *** $p < .001$.

($r_s = .16, p < .001$), lucid dreams ($r_s = .14, p = .003$), and dreams repeating a traumatic event ($r_s = .13, p = .003$), except night terrors (see Table 3).

H2 predicted that a positive and significant correlation would be found between the Dream Index (sum of dream frequency) and degree of psychopathology (measured with the SA-45), which was confirmed ($r_s = .22, p < .001$). Significant correlations were also found in eight of the nine psychopathologies measured by the SA-45 (with $Mr_s = .16$ and $p < .001$), except phobic anxiety (see Table 4).

Due to the low number of nondreamers ($n = 2$), it was decided to divide by the *Mdn* of 7 the total dream frequency (range = 0–16) to obtain two groups of dreamers: low dream frequency ($n = 167, 37.4\%$) and high dream frequency ($n = 279, 62.6\%$). H3 predicts that a positive and significant correlation would be found between childhood trauma and an increase in the degree of psychopathology (measured with the SA-45) in individuals presenting higher dream frequency, which was confirmed ($r_s = .41, p < .001$), although—strictly speaking—the low dream frequency group also presented a positive and significant correlation, but it is less robust compared to the high dream frequency group ($r_s = .21, p < .005$; see Table 5).

Table 4
Correlation Between Sleep Type (Index) With Psychopathological Traits

Variable	Hearing voices/ music	Presence malignant/ demonic	Recurrent	Lucid	Repeat event traumatic	Terrors nocturnal	Dreams
1. Hostility	.12**	.10*	.06	.02	.11*	.21***	.20***
2. Somatization	.12**	.05	.08	.04	.13**	.20***	.19***
3. Depression	.07	.11*	.02	.05	.17***	.12***	.18***
4. Obsession/compulsion	.07	.09	.07	.03	.11	.14**	.18***
4. Anxiety	.14**	.07	.02	.06	.16***	.14***	.19***
5. Interpersonal sensitivity	−.02	.06	.06	.07	.11**	.12***	.14***
6. Phobic anxiety	.04	−.02	−.019	−.03	.10**	.16***	.08
7. Paranoid ideation	.06	.12	.05	−.00	.17***	.13***	.18***
8. Psychoticism	−.01	.06	.089	.07	.17***	.16***	.18***
Symptoms (total)	.09*	.10*	.06	.05	.17***	.19***	.22**

Note. Bonferroni correction = p adjusted = .03.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5
Correlation Between Child Abuse and Psychopathological Traits in Dreamers With Low/High Dream Frequency

Factors of child abuse	Symptoms (SA-45)	
	Low frequency: dreams (n = 167)	High frequency: dreams (n = 279)
F1. Abuse	.24**	.39***
F2. Abandonment	.07	.35***
Child abuse	.21**	.41***

Note. Bonferroni correction adjusted p adjusted $p = .03$. SA-45 = Symptoms Assessment. 0–6 = *low frequency*; 7–16 = *high frequency* ($Mdn = 7$).
** $p < .01$. *** $p < .001$.

Discussion

The aim of the present study was to assess whether individuals who present more frequently with nightmares or distress dreams have had traumatic experiences in their childhood and present current psychopathological traits. More specifically, to evaluate psychopathological traits (or tendencies) that are more frequently present in individuals who experience nightmares, and their relationship to childhood trauma. The results showed that the participants had a predominant tendency to hear speakers/music in dreams (88%), have lucid dreams (79%), experience night terrors (64%), and evil/demonic presences in dreams (61%), and dreams that repeat a traumatic event (40%). In addition, 65% indicated having dreams quite frequently (“Almost every morning” to “Once or twice a week”) and increased clarity and sharpness in their dreams (79%).

Relationship Between Dream Experiences and Child Abuse

First, the results showed a positive correlation between the frequency of dream experiences and the of childhood maltreatment, with an emphasis on the abuse factor, where emotional abuse (e.g., “My family abused me emotionally, called me names, humiliated me, or belittled me”), sexual abuse (e.g., “They groped me”), and physical abuse (e.g., “Someone in my family punished me so hard that I had to see a doctor”) demonstrate that negative childhood experiences tend to show some “causality” (e.g., “I was groped”), and physical abuse (e.g., “Someone in my family punished me so severely that I had to see a doctor”) demonstrates that negative childhood experiences tend to show some “causality” with current disturbing dream experiences, particularly nightmares, such as evil presences and dreams that replay traumatic situations. Recurrent dreaming showed a more robust correlation, which could indicate that the recurrence (and persistence) of the dream—even if it repeats traumatic experiences or if they are disturbing—could be the functional equivalent of a nocturnal experience that contributes to “releasing” accumulated psychic tension, which confirms the findings of [Hartmann and Basile \(2003\)](#) suggesting that these dreams are more frequent in individuals who have gone through negative events (abuse) contributing to decompress the psychic tension that gives rise to them.

In other words, these dreams may well be therapeutic per se and have great value in the emotional life of the dreamer who experienced child abuse. However, this same

relationship was not present for situations of abandonment, both physical and emotional, so that the abandonment may have a different valence with respect to the abusive situation. Possibly, situations of child neglect—although clearly traumatic—may be somewhat compensated by the strengths and resilience of some individuals. On the other hand, the experience of a night terror, defined as “abrupt awakening, sensation of threat, physical risk, or distress but not being able to recall the content of the dream,” may not connote nightmare in the strict sense, or it may result from other processes independently of childhood trauma situations, such as stress (Blagrove et al., 2004; Levin & Nielsen, 2009; Zadra & Donderi, 2000).

Relationship Between Dream Experiences and Psychopathological Traits

Second, the results also showed a positive and significant correlation between the frequency of dream experiences (index) with psychopathological traits, where almost all traits (except phobic anxiety) tended to show positive relationships. However, although the correlations are weak (range of $r_s = .06-.19$, $M = .07$) because of the high skewness of the sample size, dreams repeating a traumatic event and “night terrors” tended to show indicators of psychopathology, followed by “evil presences” and to a lesser degree “hearing music/speakers.”

This is possibly because of two possible causes: first, psychopathological traits may somehow “shape” negative dream experiences, for example, depressive individuals tend to experience dreams of “falling” (Parra, 2009, 2023) or “grinding teeth”; phobic or paranoid ideation individuals present more dreams associated with malignant presence (Levin & Nielsen, 2007), and individuals who present greater somatization tend to present dreams that repeat traumatic events (Noll et al., 2006). So, it is consistent to argue that traits—or even specific clinical pictures—present a common pattern of dream experiences, including many of these with rich symbolic language in terms of their potential dynamic interpretation. Second, individuals who experience such dreams are more vulnerable—or at greater risk—to experience psychological disturbance; indeed, dreams replaying traumatic events and night terrors were associated with traits such as hostility (e.g., frequent arguments), tendency to somatization (e.g., muscle aches), depression (e.g., muscle pains), and depression (e.g., depression). In fact, dreams repeating traumatic events and night terrors were associated with traits such as hostility (e.g., frequent arguments), tendency to somatization (e.g., muscle aches), depression (e.g., feeling hopeless about the future), obsession (e.g., having to check everything he does over and over again), phobic anxiety (e.g., avoiding certain places or situations because they make him afraid), and psychoticism (e.g., others pick up on his thoughts).

It is remarkable that recurrent dreams—even if lucid dreams did not show any indicators associated with psychopathological features, considering that lucid dreams tend to be interpreted as more positive than disturbing experiences (Parra, 2023). In fact, recurrent traumatic dreams also occur in patients with acute stress disorder; therefore, nightmares seem to be an effective coping mechanism (at some unconscious level) in trauma victims. Childhood traumatic events may play a key role in this association (see Wood & Bootzin, 1990).

Finally, post hoc analyses with demographic variables, such as differences in gender, age, and marital status, showed no relevant results, except that males tended to have greater dream recall compared to females and that females tended

to show predominantly more auditory dreams (hearing voices/music) and night terrors compared to males. With respect to other variables, younger males tended to report abusive situations and psychopathology but did not tend to have more nightmares, and no differences were found in the frequency of dreaming or dream clarity.

This study allows inferring at least two potential predictions for future studies: First, that dream activity may be a variable that “modulates” the possible psychogenesis of mental disturbance associated with abusive situations in childhood, which may develop into a clear clinical picture in adulthood. In fact, a linear logistic regression analysis showed that childhood maltreatment predicts a pattern of psychopathological features, which confirms that maltreatment situations, particularly situations of physical, emotional, and sexual abuse in childhood could be “actualized” in the dreamer’s adult life. Second, a question that emerges from this model is to determine whether the dream experience—which is interpreted by the subject as a “nightmare” with emotionally negative connotations—emerges as an adaptive rather than dysfunctional pre-conscious response that helps to cope with the disturbing or traumatic effect of the negative childhood experience that later results in psychopathology in adult life.

Conclusions

One limitation of the study is the need for more data to confirm these speculations, such as the childhood age at which such abuse occurred, and a more qualitative (narrative) analysis of the dream experience, which is beyond the scope of the objective stated here. Another limitation is the age range of the sample, with emphasis on rather young individuals (no older than 25/30 years) instead of a more representative sample of the general population’s age range (close to a $M = 43$ years), as well as the number of individuals in the sample who responded to the online survey ($n = 367$, 81%), producing a possible bias simply because they are more interested in seeking meaning in their dreams than the general population. However, to address this limitation, we compared both responses but found no significant differences in child abuse, dream frequency, or psychopathological traits between the two groups, both online and printed questionnaires.

Second, is the negative/positive connotation of the dream in the present study? Indeed, we assume here that, for example, recurrent dreams tend to be “negative” because of their repetitive nature or that lucid dreams are more “benign” than disturbing (Parra, 2023), but we are not completely certain of this unless we have the dreamers’ narratives or a measure of their benign or disturbing effect, which could be of great interest to analyze more introspectively their nature associated with the evolution of clinical pictures and the consequences of negative events in childhood.

Future studies should test the “continuity hypothesis” widely accepted as a convincing explanation for why people with a psychiatric history or relevant psychopathological traits have nightmares. Perhaps, emotional feelings or dissociative experiences in waking life are simply a form of sleep continuity (Schredl, 2003, 2006).

References

- Aquino Cías, J., & Alonso López, C. (2006). Apnea del sueño-en niños y adolescentes [Apean of dreams in children and teenargers]. *Revista Habanera de Ciencias Médicas*, 5, 1–19.

- Banyard, V. L., Williams, L. M., & Siegel, J. A. (2001). The long-term mental health consequences of child sexual abuse: An exploratory study of the impact of multiple traumas in a sample of women. *Journal of Traumatic Stress, 14*(4), 697–715. <https://doi.org/10.1023/A:1013085904337>
- Bearden, C. (1994). The nightmare: Biological and psychological origins. *Dreaming, 4*(2), 139–152. <https://doi.org/10.1037/h0094408>
- Belicki, K. (1992). Nightmare frequency versus nightmare distress: Relations to psychopathology and cognitive style. *Journal of Abnormal Psychology, 101*(3), 592–597. <https://doi.org/10.1037/0021-843X.101.3.592>
- Bernstein, D. P., Ahluvalia, T., Pogge, D., & Handelsman, L. (1997). Validity of the *Childhood Trauma Questionnaire* in an adolescent psychiatric population. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*(3), 340–348. <https://doi.org/10.1097/00004583-199703000-00012>
- Bernstein, D. P., Fink, L., Handelsman, L., & Foote, J. (1994). Initial reliability and validity of a new retrospective measure of child abuse and neglect. *American Journal of Psychiatry, 151*(8), 1132–1136. <https://doi.org/10.1176/ajp.151.8.1132>
- Berquier, A., & Ashton, R. (1992). Characteristics of the frequent nightmare sufferer. *Journal of Abnormal Psychology, 101*(2), 246–250. <https://doi.org/10.1037/0021-843X.101.2.246>
- Blagrove, M., Farmer, L., & Williams, E. (2004). The relationship of nightmare frequency and nightmare distress to well-being. *Journal of Sleep Research, 13*(2), 129–136. <https://doi.org/10.1111/j.1365-2869.2004.00394.x>
- Cicchetti, D., & Lynch, M. (1995). Failures in the expectable environment and their impact on individual development: The case of child maltreatment. In D. Cicchetti & D. J. Cohen (Eds.), *Wiley series on personality processes. Developmental psychopathology, Volume 2: Risk, disorder, and adaptation* (pp. 32–71). John Wiley & Sons.
- Duval, M., & Zadra, A. (2010). Frequency and content of dreams associated with trauma. *Sleep Medicine Clinics, 5*(2), 249–260. <https://doi.org/10.1016/j.jsmc.2010.01.003>
- Fink, L. A., Bernstein, D., Handelsman, L., Foote, J., & Lovejoy, M. (1995). Initial reliability and validity of the Childhood Trauma Interview: A new multidimensional measure of childhood interpersonal trauma. *American Journal of Psychiatry, 152*(9), 1329–1335. <https://doi.org/10.1176/ajp.152.9.1329>
- Hartmann, E., & Basile, R. (2003). Dream imagery becomes more intense after 9/11/01. *Dreaming, 13*(2), 61–66. <https://doi.org/10.1023/A:1023398924124>
- Hill, C. E., & Rochlen, A. B. (2002). The Hill cognitive-experiential model of dream interpretation. *Journal of Cognitive Psychotherapy: An International Quarterly, 16*(1), 75–89. <https://doi.org/10.1891/jcop.16.1.75.63705>
- Levin, R. (1998). Nightmares and schizotypy. *Psychiatry, 61*(3), 206–216. <https://doi.org/10.1080/00332747.1998.11024832>
- Levin, R., & Fireman, G. (2002). Nightmare prevalence, nightmare distress, and self-reported psychological disturbances. *Sleep, 25*(2), 205–212. <https://pubmed.ncbi.nlm.nih.gov/11902430/>
- Levin, R., & Nielsen, T. (2007). Disturbed dreaming, posttraumatic stress disorder, and affect distress: A review and neurocognitive model. *Psychological Bulletin, 133*(3), 482–528. <https://doi.org/10.1037/0033-2909.133.3.482>
- 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>
- López Romera, A. (2006). Sleep disorders. In I. Suárez Richards (Ed.), *Introduction to psychiatry* (3rd ed., pp. 697–709). Polamos.
- Margolin, G., & Gordis, E. B. (2000). The effects of family and community violence on children. *Annual Review of Psychology, 51*(1), 445–479. <https://doi.org/10.1146/annurev.psych.51.1.445>
- Mellman, T., & Hipolito, M. M. S. (2006). Sleep disturbances in the aftermath of trauma and posttraumatic stress disorder. *CNS Spectrums, 11*(8), 611–615. <https://doi.org/10.1017/S1092852900013663>
- Miró-Morales, E., & Martínez Narváez, P. (2004). Psychological treatments of nightmares: A review. *International Journal of Psychology and Psychological Therapy, 4*(1), 123–132.
- Molina, J. M. (1996). Dissociation in dreams: The impact of dissociative tendency on dream content. *The Sciences and Engineering, 57*(6), 4076–4080.
- Navarro Egea, J. (2006). Dreams and nightmares. *International Journal of Developmental and Educational Psychology, 3*(1), 265–279.
- Noll, J. G., Trickett, P. K., Susman, E. J., & Putnam, F. W. (2006). Sleep disturbances and childhood sexual abuse. *Journal of Pediatric Psychology, 31*(5), 469–480. <https://doi.org/10.1093/jpepsy/jsj040>
- Ohayon, M. M., Morselli, P. L., & Guilleminault, C. (1997). Prevalence of nightmares and their relationship to psychopathology and daytime functioning in insomnia subjects. *Sleep, 20*(5), 340–348. <https://doi.org/10.1093/sleep/20.5.340>
- Parra, A. (2009). *El mundo ocultos de los sueños* [The hidden world of dreams]. Kier.

- Parra, A. (2014). Individual differences in the frequency of exotic dream recall. *Suma Psicológica*, 21(1), 63–69. [https://doi.org/10.1016/S0121-4381\(14\)70008-6](https://doi.org/10.1016/S0121-4381(14)70008-6)
- Parra, A. (2023). *Sueños: Herramientas para el terapeuta y el soñador* [Dreams: Tools for the therapist and the dreamer]. Kier.
- Parra, A., & Ugarte, M. (2018). Negative childhood experiences and dominant parental style in individuals reporting paranormal experiences. *Perspectives in Psychology*, 15(1), 86–97. <https://doi.org/10.16888/interd.2021.38.3.14>
- Sandin, B. (2008). *El estrés psicosocial. Conceptos y consecuencias clínicas* [The psychosocial stress]. Klinik.
- Schredl, M. (2003). Effects of state and trait factors on nightmare frequency. *European Archives of Psychiatry and Clinical Neuroscientist*, 253(5), 241–247. <https://doi.org/10.1007/s00406-003-0438-1>
- Schredl, M. (2006). Factors affecting the continuity between waking and dreaming: Emotional intensity and emotional tone of the waking-life event. *Sleep and Hypnosis*, 8(1), 1–5.
- Schreuder, B. J., Kleijn, W. C., & Rooijmans, H. G. (2000). Nocturnal re-experiencing more than forty years after war trauma. *Journal of Traumatic Stress*, 13(3), 453–463. <https://doi.org/10.1023/A:1007733324351>
- van de Castle, R. L. (1994). *Our dreaming mind: A sweeping exploration of the role that dreams have played in politics, arts, religion, and psychology*. Ballantine Books.
- Wood, J. M., & Bootzin, R. R. (1990). The prevalence of nightmares and their independence from anxiety. *Journal of Abnormal Psychology*, 99(1), 64–68. <https://doi.org/10.1037/0021-843X.99.1.64>
- Wood, J. M., Bootzin, R. R., Rosenhan, D., Nolen-Hoeksema, S., & Jourden, F. (1992). Effects of the 1989 San Francisco earthquake on frequency and content of nightmares. *Journal of Abnormal Psychology*, 101(2), 219–224. <https://doi.org/10.1037/0021-843X.101.2.219>
- Zadra, A., & Donderi, D. C. (2000). Nightmares and bad dreams: Their prevalence and relationship to well-being. *Journal of Abnormal Psychology*, 109(2), 273–281. <https://doi.org/10.1037/0021-843X.109.2.273>
- Zadra, A., Pilon, M., & Donderi, D. C. (2006). Variety and intensity of emotions in nightmares and bad dreams. *Journal of Nervous and Mental Disease*, 194(4), 249–254. <https://doi.org/10.1097/01.nmd.0000207359.46223.dc>