



A Review Study: Relationship between Sleep Paralysis and Sexual Abuse

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Abstract

Sleep paralysis is relatively common but an under researched phenomenon. While the causes are unknown, several studies have investigated potential high risk. One of the causes or variables for sleep paralysis was sexual abuse. Sleep disturbances are widespread and more prevalent in sexually abuse individuals.

Sleep paralysis is a feeling of being conscious but unable to move. It occurs when a person passes between stages of wakefulness and sleep. During these transitions, one may not be able to move or speak for a few minutes and few seconds. Some people may also feel pressure or a sense of choking. Sleep paralysis may also accompany other sleep disorders like narcolepsy which is an overpowering need to sleep caused by a problem with the brain's ability to regulate sleep. It occurs one of two times, while you are falling asleep, it's called hypnagogic or post dormital sleep paralysis. The aim of the current review is to study the relationship between sleep paralysis and sexual abuse. Sleep paralysis can be prevented by reducing stress, maintaining a proper sleep schedule, using medications, sleeping on your side of your bed, cognitive behavioral therapy, trauma counseling, yoga, breathing and mindfulness exercises. Physical exercise ensures that the body is tired enough to sleep through the REM cycle without disruption. CBT can improve sleep by changing behavior and ways of thinking that keeps one from falling asleep. Since sleep disorders can trigger emotional health problems like anxiety and depression, therapy is an effective way of treating the underlying problems rather than just symptoms.

Keywords : Sleep paralysis, sexual abuse, childhood sexual abuse, sleep disturbances, REM sleep, Narcolepsy

Introduction

Sleep paralysis is a phenomenon where a person awakens from sleep to find they are unable to move or speak. It often occurs during transitions from REM sleep, a paradoxical sleep stage where vivid dreams are coupled with complete muscle paralysis, to inhibit the body from acting out dreams. During sleep paralysis, the mind awakens from REM sleep before body paralysis has subsided. This terrifying experience is accompanied by awakening in darkness, helplessness, and paralysis, not being able to open eyes or scream. The mind is still clouded from sensory spill of the dream world which may cause the person to perceive hallucinations. This condition can be triggered by sleep deprivation, psychological stress, or abnormal sleep cycles. The main symptom is being unable to move or speak during awakening. Sounds like humming, hissing, static, zapping and buzzing sounds, whispers, voices, and roars are also experienced. Other symptoms can include feeling of being pushed down, feeling of fear, hypnagogic and hypnopompic experiences, difficulty in breathing, sweating, muscle aches, headaches, and paranoia.

Causes of sleep paralysis include insomnia, narcolepsy, anxiety disorders, sexual abuse, depression, PTSD, bipolar disorders. Some causes also include poor hygiene, poor sleep habits and sleep apnea.

Sleep paralysis which occurs in isolation does not require a typical medical treatment whereas the one that occurs with narcolepsy, requires treatment especially when symptoms interfere with the day to day work and home life. The most prescribed medications include stimulants, selective serotonin reuptake inhibitors (SSRI) such as fluoxetine as they help you stay awake and treat narcolepsy as well. In some cases, healthcare providers place electrodes on the chin, scalp, and outer edge of eyelids, to measure electrical activity in brain and muscle waves as well as monitor the heart and breathing rates.

It can be treated through medications and cognitive behavioral therapy (CBT). The first step to treat sleep paralysis is to identify any underlying cause that may be triggering it which can be plenty from narcolepsy to family history and other psychiatric mental disorders. Once the primary issue and underlying cause has been identified, the doctor will suggest ways of eliminating triggers and eliminate medications. Counseling can also be suggested if the cause is PTSD. CBT addresses negative thoughts and behavior patterns that contribute to sleeping problems and involves two main components i.e cognitive therapy which teaches to recognize and change negative beliefs and thoughts (cognitions) that contribute to sleep problems, and behavioral therapy that teaches to avoid behaviors that keeps one awake at night and replace them with better sleep habits. It involves three main processes, identifying negative thoughts, challenging the negative thoughts and replacing them with realistic thoughts. Behavioral techniques that are used in CBT for sleep disorders are sleep restriction therapy which reduces the time spent on bed awake and forcing one to stay awake beyond their normal bedtime,

stimulus control therapy which helps to identify changes in sleep habits that prevents from sleeping well, improving sleep environment and hygiene, remaining passively awake (paradoxical intention), relaxation training, hypnosis and biofeedback.

Sexual abuse is any sexual activity that occurs without consent. Also referred to as sexual violence and sexual assault, it is a pervasive problem. It includes unwanted sexual touching, forced oral sex and rape among other sexual acts. The abuse can lead to shock, fear, sadness, anxiety, suicidal thoughts, sleep disturbances, low self-esteem, and depressive disorders. Therapy, coping skills, social support can help relieve the burden and help survivors heal. Sexual abuse can be traumatic. In the two weeks following an assault, 94% of women in a study reported experiencing post-traumatic stress disorder symptoms, such as flashbacks, insomnia, hypervigilance, and avoidance. They also struggled with anger, anxiety, and depression. There are many types of sexual abuse victims, from marital rape, child abuse, sexual abuse of people with developmental disabilities to elderly people with dementia, poor people, minorities and animals.

Sleep Paralysis

According to Hishikawa & Shimizu (1995), sleep paralysis is defined as “a phenomenon that results when rapid eye movement (REM) activity, which includes concomitant paralysis of the skeletal muscles, persists as individual awakens and becomes more aware of his/her surroundings.”

According to APA (2022) dictionary of psychology sleep paralysis is a “brief inability to move or speak just before falling asleep or upon awakening, often accompanied by terrifying hallucinations. It may occur in any individual but is seen especially in individuals with narcolepsy and may be due to a temporary dysfunction of the reticular activating system.”

Dahlitz & Parkes (1993) aimed to study sleep paralysis which has a prevalence of 5-62%. In their study of 22 subjects with frequent sleep paralysis and excessive daytime sleepiness, episodes continued between 5-32 years of age. Sleep paralysis was familial in 19 of the subjects. A non-HLA linked genetic factor, in addition to environmental factors, may predispose to sleep paralysis.

Denis et al., (2018) aimed to conduct a systematic review on the available literature regarding variables associated with both the frequency and intensity of sleep paralysis episodes. A total of 42 studies were used to extract results of analyses looking at the relationship between sleep paralysis and associated variables. Many variables were associated like substance abuse, stress, trauma, physical illness, personality, sleep disorders and many more. It is particularly prevalent in post-traumatic stress disorder and to a less degree, panic disorder.

Fukuda et al., (1987) aimed to study a set of experiences called kanashibari which is considered identical to isolated sleep paralysis in Japan. A questionnaire was administered to 635 college students out of which at least 40% had experienced at least one episode of kanashibari (k+). About half of k+ subjects reported that they had been under physical or psychological stress or in disturbed sleep and wakefulness cycle immediately before the episode. The peak occurred in earlier age in women subjects than men subjects. Thus, the two factors that influence the occurrence of this phenomenon are exogenous physical or psychological load and other is endogenous biological development.

Cheyne (2002) aimed to study the situational factors affecting sleep paralysis and associated hallucinations. Two situational conditions were investigated i.e. body position and timing of sleep in two studies involving 6730 subjects including 4699 sleep paralysis experiences. A great number of individuals reported sleep paralysis in supine position which was more prevalent at middle and end of sleep suggesting that sleep paralysis episodes at later times might arise from brief micro arousals during REM, possibly induced by apnea. Reported frequency of sleep paralysis was greater among those consistently reporting episodes at beginning and middle of sleep. Modest effects were found for sleep paralysis timing but not body position and reported intensity of hallucinations and fear during sleep paralysis. Body position and timings of the episodes appear to affect the incidence and quality of sleep paralysis experience.

Sexual Abuse

According to Russell (1984) sexual abuse is defined as “any unwanted sexual experience before age of 14, or attempted or completed rape by age 17, or any attempted or completed sexual contact between relatives before the victim turned 18.”

According to Friedrich et al., (1986) defined childhood sexual abuse as “sexual contact with an adult, whether by force or consent, to include direct contact (intercourse) and observed contact (adult exposing self to child).”

According to Rind et al., (1998) defined childhood sexual abuse as “a sexual interaction involving either physical contact or no contact e.g. (exhibitionism) between either a child or adolescent and someone significantly older, or between two peers who are children or adolescents when coercion is used.”

According to APA dictionary (2022) of psychology sexual abuse is a “violation or exploitation by sexual means. Although the term typically is used with reference to any sexual contact between adults and children, sexual abuse can occur in any relationship of trust.”

Johnson (2004) aimed to study the worldwide concern of child sexual abuse. It affects 2-62% of women and 3-26% of men as victims. Pain and tissue injury can completely heal in time, but psychological and medical consequences can persist through adulthood. Associated sexually transmitted diseases and suicidal attempts can also be fatal. Treatment of children is best accomplished through training and routine examinations of anus and genitals of children. As many as 96% of children assessed for suspected sexual abuse will have normal genital and anal examinations, forensic interview must be relied upon to document suspicion of abuse.

Zucker et al., (1992) aimed to study the long-term effects of child sexual abuse. Evidence suggested that adult women with history of childhood sexual abuse show greater evidence of sexual disturbances or dysfunction, homosexual experiences in adulthood, depression and are more likely than non-abused women to be revictimized. Anxiety, fear and suicidal ideas and behavior have also been associated with history of childhood sexual abuse. Male victims show disturbed adult sexual functioning. Greater long-term harm is associated with abuse involving a father or stepfather and abuse involving penetration. Long duration is associated with greater impact, and use of force is associated with greater harm.

Paolucci et al., (2010) studied the effect of child sexual abuse. The meta-analysis was undertaken for 6 outcomes i.e PTSD, depression, suicide, sexual promiscuity, victim perpetrator cycle and poor academic performance which were all coded and effect sizes (d) were computed for each outcome. Average unweighted and weighted ds for each of the respective outcome variables were .50 & .40, .63 & .44, .64 & .44, .59 & .29, .41 & .16, .24 & .19 respectively. A file drawer analysis indicates that 27 studies with null ds would be required to negate the present findings. The analyses provide clear evidence confirming link between child sexual abuse and subsequent negative short- and long-term effects on development. The results of present meta-analysis support the multifaceted model of traumatization rather than a specific sexual abuse syndrome of child sexual abuse.

Review of Literature

Steine et al., (2012) aimed to study whether sexual abuse is associated with sleep disturbances which were conducted in electronic databases PsycINFO and PubMed up until October 2010. Across the 32 studies which fulfilled inclusion criteria, sleep disturbances were widespread and more prevalent in sexually abused victims as compared to in non-abused victims. The symptoms reported by sexually abused victims included nightmare related distress, sleep paralysis, night awakenings, restlessness and tiredness. Results were also divergent with regards to sleep onset difficulties, nightmare frequency, nocturnal activity, sleep efficiency and concerning proportion of each sample reporting sleep disturbances.

Barnett & Crowther (2006) aimed to examine the manifestation of panic disorder in a sample of 15 predominantly middle class African American women. They were compared to a group of 35 predominantly middle class African American women without panic disorders on factors including presence of isolated sleep paralysis, presence of other anxiety disorders, help seeking behavior and victimization. Results indicate that African American women with panic disorders experienced isolated sleep paralysis and both the groups had high levels of sexual victimization. Help seeking among women with panic and anxiety disorders was limited to relationship difficulties, sexual assault and bereavement.

Abrams et al., (2008) aimed to evaluate relationships between childhood sexual abuse and sleep paralysis. Based on self-report, 263 participants were categorized into groups of confirmed, unconfirmed and no history of childhood sexual abuse. Participants reporting childhood sexual abuse reported more frequent and distressing episodes of sleep paralysis. Post hoc analyses revealed participants with post traumatic symptoms also reported more frequent and distressing episodes of sleep paralysis. Significant correlations were found among sleep paralysis indices and measures of post traumatic symptoms, depression dissociation and absorption.

McNally & Clancy (2005) aimed to study sleep paralysis in adults reporting repressed, recovered or continuous, memories of childhood sexual abuse. They administered a sleep paralysis questionnaire to people reporting either repressed, recovered or continuous memories of childhood sexual abuse, or to a control group reporting no history of childhood sexual abuse.

The prevalence of sleep paralysis was 44% in the repressed memory group, 43% in the recovered memory group, 47% in the continuous memory group and 13% in the control group. Among 6 individuals in recovered memory group who experienced sleep paralysis, one interpreted it as related to sexual abuse. Other participants embraced other interpretations.

Higgs et al., (2020) aimed to examine the relation of childhood sexual abuse to a range of sleep symptoms and several mechanisms through which childhood sexual abuse might be related to disturbed sleep. Participants included 234 US residents who completed online measures of trauma, 21 different aspects of disturbed sleep, health behavior, and sleep hygiene. Four groups were compared using Kruskal-Wallis omnibus test, childhood sexual abuse, childhood physical abuse, both and no childhood abuse. There were no differences between those reporting childhood sexual abuse and physical abuse while all abuse groups differed from those reporting no history of abuse. Thus, childhood sexual abuse is a general, nonspecific risk factor for sleep disorders which might be partially mitigated through improved sleep hygiene.

Guidi et al., (2016) aimed to investigate the association between dissociation and sleep problems in a sample of 179 preschool age (3-6 years) sexual abuse victims and their non offending parents. The parents completed questionnaires assessing their child's dissociative symptoms and sleep problems along with their own level of psychological distress. Regression analyses revealed that sleep problems were significantly associated with dissociative symptoms. A longer duration of sexual abuse also predicted greater dissociative symptoms in pre school children and highlighted the association between sleep problems and dissociation in pre school age victims of childhood sexual abuse.

Belleville (2019) aimed to investigate whether characteristics of sexual abuse are associated with sleep disturbances and explore whether correlates of sleep disturbances are distinguishable from those PTSD symptom severity. Sample included 44 adult sexual abuse victims seeking treatment of PTSD and sleep disturbances who completed self report questionnaires. Results showed that age at time of sexual abuse contributed to severity of distress associated with nightmares whereas the number of penetrators contributed to frequency of nightmares. Findings also showed that sleep disturbances had different correlates compared to those of overall PTSD symptoms.

Noll et al., (2006) aimed to examine the relationship between childhood sexual abuse and later sleep problems in adolescence while taking into account cooccurring pathology that is closely related to sleep disruption. Sample included 147 females (78 sexually abused; 69 comparison) who were assessed

ten years after disclosure of substantiated abuse through self report questions regarding typical sleep patterns, sleep disturbances, depression, anxiety and PTSD. results showed a significant correlation of sleep disturbances with PTSD and depression. Hierchail regression analysis showed that sexually abused participants reported significantly greater rates of sleep disturbances than comparison participants.

Conclusion

Sleep paralysis was a relatively common but under researched phenomenon. While the causes are unknown, several studies have investigated potential high risk. One of the causes or variables for sleep paralysis was sexual abuse. Sleep disturbances were widespread and more prevalent in sexually abused individuals. Sleep paralysis, a feeling of being conscious but unable to move. It occurs when a person passes between stages of wakefulness and sleep. During these transitions, one may not be able to move or speak for a few minutes and few seconds. Some people may also feel pressure or a sense of choking and may also accompany other sleep disorders like narcolepsy which is an overpowering need to sleep caused by a problem with the brain's ability to regulate sleep. It occurs one of two times, while falling asleep, it's called hypnagogic or post dormital sleep paralysis. The aim of the current research is to study the relationship between sleep paralysis and sexual abuse.

Suggestions

Keeping in view all the studies in order to avoid sleep paralysis and improve sleep hygiene it is recommended to avoid blue light prior to sleep and ensuring a low room temperature. Sleep paralysis can be prevented by reducing stress in life, exercising regularly to ensure that the body is tired enough to sleep through the REM cycle without disruption, getting sufficient rest, maintaining a proper sleep schedule, keeping track of medications as well as knowing the side effects of medications to avoid them. The most prescribed medications include stimulants, selective serotonin reuptake inhibitors (SSRI) such as fluoxetine as well as use of electrodes. Sleeping patterns like sleeping on your side of your bed, avoiding sleeping on your back and staying relaxed during paralysis. Some other suggestions include cognitive behavioral therapy, trauma counseling as well as yoga, breathing and mindfulness exercises. Cognitive Behavioural Therapy (CBT) can improve sleep by changing behavior before bedtime as well as changing the ways of thinking that keeps one from falling asleep. It also focuses on changing lifestyle habits as well as improving relaxation skills. Since sleep disorders can be caused by and trigger emotional health problems like anxiety and depression, therapy is an effective way of treating the underlying problems rather than just symptoms.

References

- A meta-analysis of the published research on the effects of child sexual abuse.* Taylor & Francis. (n.d.). Retrieved November 19, 2022, from <https://www.tandfonline.com/doi/abs/10.1080/00223980109603677>
- Abrams, M. P., Mulligan, A. D., Carleton, R. N., & Asmundson, G. J. G. (2008, March 13). *Prevalence and correlates of sleep paralysis in adults reporting childhood sexual abuse.* Journal of Anxiety Disorders. Retrieved November 19, 2022, from <https://www.sciencedirect.com/science/article/abs/pii/S0887618508000704>
- Academic.oup.com. (n.d.). Retrieved November 19, 2022, from <https://academic.oup.com/sleep/article/10/3/279/2742574>
- Academic.oup.com. (n.d.). Retrieved November 24, 2022, from <https://academic.oup.com/jpepsy/article/31/5/469/876405>
- Additional Information Funding this research was funded by grants from the Fonds québécois de recherche sur la société et la culture and the Social Sciences Humanities Research Council awarded to Martine Hébert. (n.d.). *Sleep problems and dissociation in preschool victims of sexual abuse.* Taylor & Francis. Retrieved November 24, 2022, from <https://www.tandfonline.com/doi/abs/10.1080/15299732.2016.1240739>
- American Psychological Association. (n.d.). *Apa Dictionary of Psychology.* American Psychological Association. Retrieved November 19, 2022, from <https://dictionary.apa.org/sexual-abuse>
- American Psychological Association. (n.d.). *Apa Dictionary of Psychology.* American Psychological Association. Retrieved November 19, 2022, from <https://dictionary.apa.org/sleep-paralysis>
- Authors, A., & Belleville, G. (n.d.). *Sleep disturbances and nightmares in victims of sexual abuse with post-traumatic stress disorder: An analysis of abuse-related characteristics.* Taylor & Francis. Retrieved November 24, 2022, from <https://www.tandfonline.com/doi/full/10.1080/20008198.2019.1581019>
- Beitchman, J. H., Zucker, K. J., Hood, J. E., DaCosta, G. A., Akman, D., & Cassavia, E. (2002, June 22). *A review of the long-term effects of child sexual abuse.* Child Abuse & Neglect. Retrieved November 19, 2022, from <https://www.sciencedirect.com/science/article/abs/pii/S014521349290011F>
- Dahlitz, M., & Parkes, J. D. (2003, September 21). *Sleep paralysis.* The Lancet. Retrieved November 19, 2022, from <https://www.sciencedirect.com/science/article/abs/pii/S0140673693929923>
- Denis, D., French, C. C., & Gregory, A. M. (2017, June 8). *A systematic review of variables associated with sleep paralysis.* Sleep Medicine Reviews. Retrieved November 19, 2022, from <https://www.sciencedirect.com/science/article/pii/S1087079217301120>

- Higgs, E., Drolet, C. E., & Belicki, K. (2020, June 7). *The impact of childhood sexual abuse on sleep in adulthood*. Child Abuse & Neglect. Retrieved November 19, 2022, from <https://www.sciencedirect.com/science/article/abs/pii/S0145213420302222>
- Iris M. Steine, Allison G. Harvey, John H. Krystal, Anne M. Milde, Janne Grønli, Bjørn Bjorvatn, Inger H. Nordhus, Jarle Eid, Ståle Pallesen, *Sleep disturbances in sexual abuse victims: A systematic review*, Sleep Medicine Reviews, Volume 16, Issue 1, 2012, Pages 15-25, ISSN 1087-0792, <https://doi.org/10.1016/j.smrv.2011.01.006>. (<https://www.sciencedirect.com/science/article/pii/S1087079211000086>)
- Johnson, C. F. (2004, July 30). *Child sexual abuse*. The Lancet. Retrieved November 19, 2022, from <https://www.sciencedirect.com/science/article/abs/pii/S0140673604167718>
- Lashkari, C. (2019, February 27). *Sleep paralysis treatment and prevention*. News. Retrieved November 24, 2022, from <https://www.news-medical.net/health/Sleep-Paralysis-Treatment-and-Prevention.aspx>
- McNally, R. J., & Clancy, S. A. (2004, July 20). *Sleep paralysis in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse*. Journal of Anxiety Disorders. Retrieved November 19, 2022, from <https://www.sciencedirect.com/science/article/abs/pii/S088761850400057X>
- Neal-Barnett, A.M. and Crowther, J.H. (2000), *To be female, middle class, anxious, and black*. Psychology of Women Quarterly, 24: 129-136. <https://doi.org/10.1111/j.1471-6402.2000.tb00193.x>
- O'Connell, K. (2021, July 1). *Sleep paralysis: Factors, symptoms & treatments*. Healthline. Retrieved November 24, 2022, from <https://www.healthline.com/health/sleep/isolated-sleep-paralysis#causes-risk-factor>
- Situational factors affecting sleep paralysis ... - wiley online library*. (n.d.). Retrieved November 23, 2022, from <https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1365-2869.2002.00297.x>
- Steine, I. M., Harvey, A. G., Krystal, J. H., Milde, A. M., Grønli, J., Bjorvatn, B., Nordhus, I. H., Eid, J., & Pallesen, S. (2011, May 19). *Sleep disturbances in sexual abuse victims: A systematic review*. Sleep Medicine Reviews. Retrieved November 19, 2022, from <https://www.sciencedirect.com/science/article/abs/pii/S1087079211000086>
- Sussex Publishers. (n.d.). *Sleep paralysis*. Psychology Today. Retrieved November 19, 2022, from <https://www.psychologytoday.com/us/blog/dream-factory/201409/sleep-paralysis>
- Sussex Publishers. (n.d.). *Sexual abuse*. Psychology Today. Retrieved November 19, 2022, from <https://www.psychologytoday.com/us/basics/sexual-abuse>
- Therapy for sleep disorders*. HelpGuide.org. (n.d.). Retrieved November 24, 2022, from <https://www.helpguide.org/articles/sleep/therapy-for-sleep-disorders.htm>
- WebMD. (n.d.). *Sleep paralysis - causes, symptoms, treatment, and prevention*. WebMD. Retrieved November 24, 2022, from <https://www.webmd.com/sleep-disorders/sleep-paralysis>
- Wikimedia Foundation. (2022, November 7). *Sexual abuse*. Wikipedia. Retrieved November 19, 2022, from https://en.wikipedia.org/wiki/Sexual_abuse
- Wikimedia Foundation. (2022, November 18). *Sleep paralysis*. Wikipedia. Retrieved November 19, 2022, from https://en.wikipedia.org/wiki/Sleep_paralysis