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Exploring Occupation-Based Sleep Interventions for School-Aged Children

Experiencing Homelessness: A Critically Appraised Topic

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Aspen DeLano, Joslynn Sauer & Emily Vieth, 2023

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Exploring Occupation-Based Sleep Interventions for School-Aged Children Experiencing Homelessness: A Critically Appraised Topic

Focus Question

What are the most effective occupation-based interventions to address sleep deprivation among elementary-aged children, between the ages of 6 and 12, in the homeless population?

Clinical Scenario

Sleep is a crucial component of healthy neurological development throughout childhood. According to Suni (2023a), elementary school-aged children between the ages of 6 and 12 experience sleep deprivation when they obtain less than 9 hours of sleep per night. Contie (2022) found that children experiencing insufficient sleep had more mental health and behavioral challenges than those who had sufficient sleep. Additionally, Contie (2022) found that children experiencing sleep deprivation had less gray matter and volume in their brains. This impacts cognitive functioning, specifically decision-making, conflict-solving, working memory, and learning. The brain undergoes critical development of the basal ganglia, ganglia-thalamus-cortex circuit, and prefrontal cortex; underdevelopment of these areas leads to inattention, affective changes, and information processing (Yang, et al., 2022). According to Jiang (2020), neuroimaging studies have suggested that sleep deprivation was associated with a 60% greater magnitude of activation of the amygdala. Diminished connectivity between the amygdala and the prefrontal cortex suggests that sleep deprivation may cause a lack of cognitive control over emotions. Sleep deprivation can have an immense impact on emotional regulation and cognitive function (Jiang, 2020). Altogether, sleep plays a crucial role in brain development in children.

Sleep impacts occupational performance in education, and both sleep and education are integral components of childhood development. The American Occupational Therapy



Association (AOTA, 2022) defined education as “Activities needed for learning and participating in the educational environment” (p. 33). Orenstein and Lewis (2022) noted Erickson’s theory of cognitive development includes a stage devoted to the School-Age period, which examines industry vs inferiority. In this stage of cognitive development, children develop either a sense of competency or passivity, which may be exacerbated by difficulties in education and lack of sleep. Occupational therapists can address sleep to improve education outcomes. AOTA (2020) recognized rest, sleep preparation, and sleep participation as necessary components of sleep. The National Heart, Lung, and Blood Institute (2022) recognized that sleep deprivation in school-aged children may result in inattention, hyperactivity, and poor behavioral control, all of which impact educational performance. Suni (2023b) noted sleep deprivation in children also negatively impacts memory, processing, sequencing, and creativity. He further recognized lack of sleep was correlated with truancy. According to Cook, et al. (2020), each additional hour of sleep a child gets is associated with a 16% decrease in the likelihood that a child will experience out-of-school suspension. Therefore, sleep significantly correlates to educational performance.

Homelessness has a profound impact on children’s mental and physical well-being, including lack of sleep, leading to sleep deprivation. Coughlin et al. (2020) defined homelessness as “... not just living in a shelter or on the street; people experiencing homelessness, especially children and families, are often couch surfing, ‘doubling up’ with friends or relatives, or living in motels, hotels, or campgrounds” (p. 1). The authors of a mixed methods study examining the perceptions of homeless families who have children between 5 and 18 recognized the link between sleep and education (Scanlon & McKenna, 2018). The majority of the families in the study, 16 out of 19, indicated poor sleep and disrupted sleep routines negatively impacted their children’s ability to participate in education. The families further identified specific barriers to



adequate sleep. Lack of transportation necessitated early wake times to arrive at school on time. Other barriers included difficulty maintaining sleep routines and noisy environments waking the children. Disrupted or inadequate sleep led to children falling asleep in class, preventing them from engaging in school (Scanlon & McKenna, 2018). These barriers to adequate sleep necessitate interventions that allow children experiencing homelessness the opportunity to have adequate rest and the opportunity to engage in class in a meaningful way.

There are interventions to improve both sleep and education; however, very few studies have examined how these interventions could be applied to homeless elementary school-aged children. Ho and Sui (2018) outlined potential occupational therapy interventions to improve sleep using adaptive equipment, mind-body activities including yoga, meditation, and breathing exercises, cognitive behavioral therapy for insomnia (CBT-i), and lifestyle interventions. Adaptive equipment, such as weighted blankets or pillows may be difficult for transient homeless children to access. However, mind-body activities, CBT-i, and lifestyle interventions may be more feasible for this population. Dewald-Kaufman et al. (2019) noted that CBT-i has been tested with school-aged children and has been shown to be effective. There is a need for occupational therapy interventions to address sleep deprivation among elementary school-aged children who are experiencing homelessness due to its impact on education.

Summary of Key Findings

Three interventions decreased sleep deprivation among elementary school-aged children who were experiencing homelessness. These interventions were mindfulness, cognitive behavioral therapy for insomnia, and setting an earlier bedtime. None of the interventions required additional materials, allowing them to be feasible for the homeless population. Due to the lack of research on sleep intervention for elementary-aged children experiencing



homelessness, articles that examined at least two of the three key concepts– homelessness, elementary-aged children, and interventions to improve sleep– for this critically appraised topic were included.

Occupation-Based Interventions

Mindfulness Interventions

Mindfulness-based interventions (MBIs) were used to focus on the present moment and individual self-reflection. SantaMaria et al. (2020) examined the effectiveness of MBIs with homeless youth between the ages of 18-21 years using a mixed methods study, a level NA design. While this study did not include children ages 6-12, it incorporated mindfulness– a sleep intervention– and homelessness. According to SantaMaria et al. (2020), the participants in this study had to be 18-24 years of age, speak and understand English, plan on participating for the duration of the intervention, and be currently staying at the shelter, on the streets, or unsure of where they would be staying for the next 30 days on the day of enrollment. The results of this study found significant improvements in the individual’s pre-post outcomes when looking at frustration, restlessness, stress, depression, boredom, and mindlessness. Although this study did not focus on how mindfulness affects sleep, it recognized the importance of emotion regulation and calmness. Furthermore, sleep and emotion were connected; according to Triantafillou et al. (2019), sleep and mood were positively correlated. Therefore, interventions that improved mood had beneficial effects on sleep. Other studies have also examined the effects of mindfulness on sleep.

Blake et al. (2017) conducted a level 2 parallel randomized control trial using the SENSE Study to test whether a cognitive-behavioral and mindfulness-based group sleep intervention would improve behavior problems in at-risk adolescents aged 11-20 years and whether these



improvements were specifically related to improvements in sleep. This study was relevant to the topic since it focused on mindfulness interventions and sleep quality; furthermore, some of the children fit within the specific 6-12 age range identified as the age group for this critically appraised topic. According to Blake et al. (2017), the inclusion criteria demonstrated a vigorous process of contacting specific schools, receiving parent consent, having participants complete the screening questionnaire followed by the completion of a diagnostic interview, and then completing the pre-intervention assessments before being admitted into the actual intervention. The study started with 123 adolescents experiencing high levels of sleep problems and anxiety symptoms. The participants were randomly placed in either a sleep improvement intervention or an active control “study skills” educational intervention. This study provides evidence that both a cognitive-behavioral and mindfulness-based group sleep intervention improved behavior problems in at-risk adolescents by improving perceived sleep quality.

The study by SantaMaria et al. (2020) was guided by a theoretical framework informed by the Risk Amplification Model (RAM) and the Minority Stress Model (MSTM). The article by Blake et al. (2017) did not specify a theoretical framework, but the Person-Environment-Occupation Model (PEO; Law, et al., 1996) would have been the best fit to address mindfulness among children and adolescents due to the interplay between the child, their unstable environment, and the occupation of sleep. Individuals experiencing homelessness may not have control over their environments, making an effective person x environment transaction less feasible; therefore, studies that used a person x occupation transaction, such as this one, show promise for the targeted population. This study showed that using mindfulness and cognitive-behavioral interventions improved the quality of sleep in the participants concerning school nights. The articles by SantaMaria et al. (2020) and Blake et al. (2017) incorporated



mindfulness-based sleep interventions which showed improvements in relaxation and quality of sleep. Both mindfulness and cognitive behavioral therapy for insomnia (CBT-i) addressed the client's cognitive states to promote adequate sleep; furthermore, both utilize cognitive restructuring to quiet the mind in preparation for sleep.

Cognitive Behavioral Therapy for Insomnia

Cognitive behavioral therapy for insomnia (CBT-i) was an effective intervention for sleep deprivation among children according to Dewald-Kaufman et al. (2019) and Schlarb et al. (2018). Dewald-Kaufman et al. (2019) examined the effectiveness of CBT-i for children between the ages of 5 and 13 years using a qualitative scoping review, a level NA design. The authors did not determine specific exclusion criteria for the articles, and they included 78 articles focused on CBT-i, sleep problems in children, and insomnia among adolescents. Dewald-Kaufman et al. (2019) found CBT-i was particularly effective for children above the age of 7; CBT-i required metacognition, the ability to reflect on one's thoughts. Dewald-Kuarfman (2019) noted metacognition was not prevalent in children under the age of 7, so they could not confront their dysfunctional thoughts. Both the children and their parents participated in CBT-i; the therapists taught CBT-i to the parents to emphasize the importance of positive reinforcement to promote healthy sleep behaviors. Other concerns addressed through CBT-i were better sleep onset, thought challenges, and sleep hygiene. To improve sleep onset, parents used faded bedtimes in which bedtimes were pushed later into the night to encourage the child to feel more tired during bedtime. As the association between the concepts of bedtime and sleep improved, the bedtimes gradually became earlier until the desired final bedtime was reached. There were two steps for thought challenging. The first step was identifying dysfunctional thought, and the second step was challenging the thought inhibiting sleep by considering whether the thought was accurate or



by replacing the thought. According to Dewald-Kaufman et al. (2019) sleep hygiene included: not napping during the day, regular bedtimes, avoiding drinks with caffeine, decreasing stimulating activities immediately before bed, and having adequate physical activity during the day. Components of sleep hygiene could be implemented among the homeless population; however, it included factors outside of the parents' and children's control such as having a consistent place to sleep (Dewald-Kaufman, et al., 2019). Dewald-Kaufman et al. (2019) demonstrated CBT-i combined with sleep hygiene was an effective, multi-component intervention that improves sleep among children and does not require physical materials to carry out. Supporting the article by Dewald-Kaufman et al. (2019), a study by Schlarb et al. (2018) also demonstrated the effectiveness of CBT-i.

Schlarb et al. (2018) conducted a level 2 randomized control trial to examine the effects of CBT-i for insomnia on 119 children between the ages of 5 and 10 who had a non-somatic-caused sleep disorder and who did not have a current mental disorder. Of these children, five withdrew for family or business reasons and two were referred to a mental health facility. The researchers randomly assigned the remaining 112 families to the control or intervention groups. The control group was composed of 26 children. The children in the control group did not receive intervention for 6 weeks. The intervention group comprised 81 children who received CBT-i. The CBT-i intervention included five integrated interventions: “sleep restriction, stimulus control therapy, sleep hygiene, relaxation, and cognitive therapy” (Schlarb, et al., 2018, p. 383). Schlarb et al. (2018) collected data 2 weeks before delivering the intervention, right after treatment, after 3 months, after 6 months, and after 12 months. Sleep onset latency (SOL), number of nightly awakenings, sleep efficiency, and sleeping independently were all significantly improved ($p < .05$) for the intervention group compared to the control group



immediately after receiving the intervention. After the 12-month follow-up, children who received CBT-i still displayed significant improvements in the sleep parameters listed above. The only area unimproved by CBT-i was total sleep time. CBT-i showed promise for children with insomnia.

Although the authors in both articles did not specify a theoretical framework, the PEO model (Law, et al., 1996) would be appropriate to address insomnia among children. Since CBT-i focused on cognition and its role in the occupation of sleep, it demonstrated a person x occupation transaction. The studies above showed CBT-i increased the occupational fit for sleep. CBT-i in conjunction with mindfulness improved sleep quality (Dewald-Kaufman, et al., 2019; Schlarb, et al., 2018); however, based on the article by Dewald-Kaufman et al. (2019), sleep hygiene should be integrated with these interventions. One particularly effective sleep hygiene intervention was setting an earlier bedtime.

Earlier Bedtime

There is limited research on interventions regarding sleep routines and their effectiveness. However, existing research suggested improving sleep routines was useful in increasing sleep duration (Magee et al., 2022). Magee et al. (2022) examined 45 randomized clinical trials in a level 1 systematic review. The inclusion criteria were studies that involved a population of 1-18 years of age without a known medical condition or disability. Magee et al. (2022) used a verification process to assure data consistency; two researchers extracted the articles and one researcher reviewed the articles for discrepancies. Additionally, the researchers used Cochrane's Risk of Bias Tool to control for bias. After the synthesis of the studies, the authors concluded that the location of the interventions and the age of the participants did not affect the intervention outcomes. Although this systematic review did not directly address homelessness, the



researchers noted the location of the interventions had no effect on the outcomes. This suggests that earlier bedtimes would be a beneficial intervention to implement with the homeless population. Magee et al. (2022) noted that although 3 out of the 45 studies examined the effectiveness of an earlier bedtime, those three studies demonstrated a greater significance than any other intervention they explored. Encouraging earlier bedtimes increased sleep duration by 47 minutes. This systematic review concluded that specific domain interventions, which focused on one aspect of an individual's routine, were more effective than broad-focused interventions, which focused on lifestyle changes.

In homeless children, the environment may be unknown, but by implementing earlier bedtimes, sleep duration lengthened, which in turn decreased the number of children experiencing sleep deprivation; as Magee et al. (2022) noted, the outcome of an earlier bedtime did not change as a result of age or location. Therefore, encouraging an earlier bedtime could be used consistently across various types of homelessness and ages of children. Although Magee et al. (2022) identified no theoretical framework, the PEO model (Law, et al., 1996) would be suitable for addressing sleep routines in children. Implementing earlier bedtimes increased sleep duration, which in turn increased occupational performance, this was representative of a person x environment x occupation transaction. An earlier bedtime created an adequate fit between the person and their occupation regardless of their environment. According to Magee et al. (2022), specific domain interventions were more effective when addressing sleep routines, particularly setting an earlier bedtime. This, in turn, showed a positive correlation between an early bedtime and increased sleep duration, which improved occupational performance.



Summary of Literature

Of the evidence reviewed, there were no articles that examined sleep interventions for homeless elementary school-aged children; however, multiple authors considered the impacts on sleep for adolescent homeless individuals. Four of the articles examined sleep interventions for children. Although none of these articles followed the exact operational definition of school-aged children used in this study (6 to 12 years), these studies included children that fit within this age range (Blake, et al., 2017; Dewald-Kaufman, et al., 2019; Magee et al., 2022; Schlarb, et al., 2018). Only one article addressed the homeless population (SantaMaria et al., 2020). All the interventions from these articles could be at least partially implemented with the homeless population to improve sleep (Blake, et al., 2017; Dewald-Kaufman, et al., 2019; Magee et al., 2022; SantaMaria et al., 2020; Schlarb, et al., 2018). Based on the findings from these studies, mindfulness, CBT-i, and implementing an earlier bedtime were the most effective occupation-based interventions to address sleep deprivation among elementary-aged children between the ages of 6 and 12 in the homeless population.

Clinical Bottom Line

The purpose of this critically appraised topic was to examine the most effective occupation-based interventions to address sleep deprivation among elementary-aged children, between the ages of 6 and 12, in the homeless population. It is important to note that many of the interventions recommended for sleep were not applicable for people in the homeless population either due to the transient nature of the individual or the inability to acquire the materials necessary to carry out the intervention, such as weighted blankets (Ho & Sui, 2018). However, based on the results of the literature search, mindfulness, CBT-i, and implementing an earlier bedtime were linked to better sleep for children and did not require additional materials or



specific settings, making them feasible for the homeless population. All three interventions were occupation-based; they focused on improving the occupation of sleep. Mindfulness addressed poor mood and behavior problems, which may improve sleep (SantaMaria, et al., 2020; Blake, et al., 2017). CBT-i included interventions for sleep hygiene, thought challenging, and sleep onset. This intervention was particularly effective for children older than 7 (Dewalad-Kaufman, 2019). CBT-i improved sleep onset latency (SOL), number of nightly awakenings, sleep efficiency, and independent sleeping but it did not improve total sleep time (Schlarb, et al., 2018). The authors of a systematic review of 45 articles noted setting an earlier bedtime, an approach used in 3 of their reviewed articles, was identified as more impactful than any other intervention used in the remaining articles (Magee et al., 2022).

The levels of evidence for these interventions varied when looking at the articles selected for this critically appraised topic. Two of the five articles were level NA designs (SantaMaria et al., 2020; Dewald-Kaufman et al., 2019), two of the articles were level 2 (Blake et al., 2017; Schlarb, et al., 2018), and one article was a level 1 systematic review (Magee et al., 2022). This wide variety of research suggests that this issue is being examined from both quantitative and qualitative perspectives. The qualitative studies examined the lived experience of the participants, providing a unique point of view on this issue (SantaMaria et al., 2020; Dewald-Kaufman et al., 2019). Few quantitative studies have been conducted on sleeplessness among homeless elementary-aged children, suggesting there is a need for further research on this topic.

Although the primary focus of this critically appraised topic was on addressing sleep interventions and not educational interventions, the literature suggests improved sleep is correlated to better educational outcomes (The National Heart, Lung, and Blood Institute, 2022; Suni, 2023b). Mindfulness, CBT-i, and implementing an earlier bedtime were the most effective



occupation-based interventions to address sleep deprivation among elementary-aged children between the ages of 6 and 12 in the homeless population.

Interprofessional Team

Occupational therapists frequently work with interprofessional teams to address the needs of homeless elementary-aged children. Other professions that aid this population include educators and social workers. Educators who addressed problems arising from homelessness noted they advocated for their students, demonstrated sensitivity to their student's needs, and promoted their emotional well-being (Scanlon & McKenna, 2018). Both teachers and principals coordinated support services for their students and reached out to external agencies including mental health specialists when necessary (Scanlon & McKenna, 2018). However, not all teachers recognize the signs of homelessness nor know how to aid their students in the homeless population. Training teachers to recognize the signs of homelessness may enable them to provide their students with the resources they need (Beiner, 2022). Social workers advocate for their clients and assist children and their families experiencing homelessness by providing them with community resources. When social workers address homelessness, they benefit from using a holistic paradigm that centers on autonomy and individual resilience (Cronley, et al., 2019). Social workers in the United States do not need to learn about their role in addressing homelessness to obtain their degree; therefore, not all social workers are equipped to work with this population post-graduation (Cronley, et al., 2019). Social workers may need to seek supplemental education to learn how to address the needs of the American homeless population. Occupational therapists work alongside these professionals to meet their clients' needs. Occupational therapists' role is to advocate for their clients, enable them to have beneficial routines, educate family members on low-cost ways to engage with their children, and refer them



to community resources that will enable them to engage in meaningful occupations (O'Donnell & McKinnon, 2022). Occupational therapists may need to receive additional training to competently administer CBT-i or mindfulness. Each member of the interprofessional team must work collaboratively to ensure their clients who are experiencing homelessness have the best possible outcomes.

Culture

There is a stigmatizing culture that surrounds homelessness. However, the culture of homelessness may look different in varying contexts. In school, children may make a sizable effort to mask the effects of homelessness to avoid the stigma. As a result, homelessness often goes undetected in the school system (Beiner, 2022). In addition, parents' attitudes toward homelessness shape the way their children perceive it. Parents who do not stereotype the homeless population forge a path of acceptance rather than stigmatization. If the stigma toward homelessness was decreased, more children may be willing to express their needs to those in their community who could support them.

Summary

Although there has been little research on interventions to improve sleep for elementary-aged children who are experiencing homelessness, mindfulness, CBT-i, and setting an earlier bedtime may be feasible for this population. Occupational therapists can address sleeplessness among this population by working alongside interprofessional teams and combating the stigmas associated with homelessness. There is a critical need to research sleep interventions for children experiencing homelessness to provide the rest these children need to thrive scholastically.



References

- American Occupational Therapy Association. (2020). Occupational therapy practice framework: Domain and process (4th ed.). *American Journal of Occupational Therapy*, 74(2).
<https://doi.org/10.5014/ajot.2020.74S2001>
- Beiner, C. (2022). *Homeless youth and children are wildly undercounted, advocates say*. Wyoming Public Radio.
<https://www.npr.org/2022/02/15/1073791409/homeless-youth-and-children-are-wildly-undercounted-advocates-say>
- Blake, M., Waloszek, J. M., Schwartz, O., Raniti, M., Simmons, J. G., Blake, L., Murray, G., Dahl, R. E., Bootzin, R., Dudgeon, P., Trinder, J., & Allen, N. B. (2016). The SENSE study: Post intervention effects of a randomized controlled trial of a cognitive-behavioral and mindfulness-based group sleep improvement intervention among at-risk adolescents. *Journal of Consulting and Clinical Psychology*, 84(12), 1039–1051. <https://doi.org/10.1037/ccp0000142>
- Chellappa, S. & Aeshbach, D. (2022) Sleep and anxiety: From mechanisms to interventions. *Sleep Medicine Reviews*, 61. <https://doi.org/10.1016/j.smr.2021.101583>
- Contie, V. (2022). *Children's sleep linked to brain development*. National Institute of Health.
<https://www.nih.gov/news-events/nih-research-matters/children-s-sleep-linked-brain-development>
- Cook, J., Peppard, P., Blair, E., Tran, K., & Plante, D. (2020). 0267 School night sleep duration effect on risk for in-and-out of school suspensions: An investigation in a middle-school aged sample. *Sleep*, 1(43). <https://doi.org/10.1093/sleep/zsaa056.266>



- Coughlin, C., Sandel, M., & Stewart, A. (2020). Homelessness, children, and COVID-19: A looming crisis. *Pediatrics (Evanston)*, *146*(2), 7-9.
<https://doi.org/10.1542/peds.2020-1408>
- Cronley, C., Murphy, E., & Petrovich, J. (2019). Homelessness from a holistic paradigm: Bridging gaps in curriculum through supplemental education opportunities. *Journal of Social Work Education*, *56*(1), 16-27. <https://doi.org/10.1080/10437797.2020.1723762>
- Dewald-Kaufmann, J., Bruin, E., & Michael, G. (2019). Cognitive behavioral therapy for insomnia in school-aged children and adolescents. *Sleep Medicine Clinics*, *17*(3).
<https://doi.org/10.1016/j.jsmc.2019.02.002>
- Ho, E. & Siu, A. (2018). Occupational therapy practices in sleep management: A review of conceptual models and research evidence. *Occupational Therapy International*, 2018.
<https://doi.org/10.1155/2018/8637498>
- Jiang, F. (2020). Sleep and early brain development. *Annals of Nutrition & Metabolism*, *75*(1), 44–54. <https://doi-org.ezproxylr.med.und.edu/10.1159/000508055>
- Law, M., Cooper, B., Strong, S., Stewart, D., Rigby, P., & Letts, L. (1996). The person-environment-occupation model: A transactive approach to occupational performance. *Canadian Journal of Occupational Therapy*, *63*(1), 9-23.
<https://doi-org.ezproxylr.med.und.edu/10.1177/000841749606300103>
- Magee, L., Goldsmith, L. P., Chaudhry, U. A. R., Donin, A. S., Wahlich, C., Stovold, E., Nightingale, C. M., Rudnicka, A. R., & Owen, C. G. (2022). Nonpharmacological interventions to lengthen sleep duration in healthy children: A systematic review and meta-analysis. *JAMA Pediatrics*, *176*(11), 1084–1097.
<https://doi.org/10.1001/jamapediatrics.2022.3172>



National Heart, Lung, and Blood Institute. (2022). *How sleep affects your health*.

<https://www.nhlbi.nih.gov/health/sleep-deprivation/health-effects#:~:text=Studies%20also%20show%20that%20sleep%20deficiency%20changes%20activity,been%20linked%20to%20depression%2C%20suicide%2C%20and%20risk-taking%20behavior.>

O'Donnell, M. & McKinnon, S. (2022). Advocating for change to meet the developmental needs of young children experiencing homelessness. *American Journal of Occupational Therapy*, 76(5). <https://doi.org/10.5014/ajot.2022.050114>

Orenstein, G. & Lewis, L. (2022). Erickson's stages of psychosocial development. *StatPearls*. <https://www.ncbi.nlm.nih.gov/books/NBK556096/>

SantaMaria, D., Cuccaro, P., Bender, K., Cron, S., Fine, M., & Sibinga, E. (2020). Feasibility of a mindfulness-based intervention with sheltered youth experiencing homelessness. *Journal of Child and Family Studies*, 29(1), 261–272. <https://doi.org/10.1007/s10826-019-01583-6>

Scanlon, G. & McKenna, G. (2018). *Home works: A study on the educational needs of children living in homelessness and living in emergency accommodation*. Children's Rights Alliance. <https://doras.dcu.ie/24808/1/HOMEWORKS.pdf>

Schlarb, A., Bihlmaier, I., Velten-Schurian, K., Poets, C., & Hautzinger, M. (2018). Short- and long-term effects of CBT-I in groups for school-age children suffering from chronic insomnia: The KiSS-Program. *Behavioral Sleep Medicine*, 16(4), 380–397. <https://doi-org.ezproxy.library.und.edu/10.1080/15402002.2016.1228642>

Suni, E. (2023a). *How much sleep do babies and kids need?* Sleep Foundation. <https://www.sleepfoundation.org/children-and-sleep/how-much-sleep-do-kids-need>



Suni, E. (2023b). *Improve your child's school performance with a good night's sleep*. Sleep Foundation.

<https://www.sleepfoundation.org/children-and-sleep/sleep-and-school-performance>

Triantafillou, S., Saeb, S., Lattie, E. G., Mohr, D. C., & Kording, K. P. (2019). Relationship between sleep quality and mood: Ecological momentary assessment study. *JMIR Mental Health*, 6(3). <https://doi.org/10.2196/12613>

Yang, F., Xie, W., & Wang, Z. (2022). Effects of sleep duration on neurocognitive development in early adolescents in the USA: A propensity score matched, longitudinal, observational study. *The Lancet Child and Adolescent Health*, 6(10), 705-712.

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