

Evaluation of Aromatherapy Lavender and White Noise Use on Infants Sleep Quality: Literature Review

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Abstract

(1) Introduction: Sleep quality is an important component of general health that is associated with a range of mental and physical health outcomes. The quality of an infant's sleep can affect their development because with good sleep, their growth will also be good, and vice versa if there is a sleep disorder their growth will be disrupted. To overcoming sleep disorders and improving sleep quality can be done with non-pharmacology method. Non-pharmacological method is a safe alternative, namely by giving aromatherapy and listening to white noise. One of the most popular essential oils for aromatherapy is lavender. Lavender have a main compound that is Linalool that can make our body relax. White noise is a monotonous sound that can mask all the sounds form the surrounding environment that are quite distracting.; (2) Methods: Literature review sourced from 11 research articles published in 2019-2024 and took from Google Scholar and Pubmed; (3) Results: Based on the result of 11 journal articles cllted and the author's analysis, it was found that there was an effect of lavender aromatherapy and white noise on infant sleep quality; (4) Conclusions: Evaluation of lavender aromatherapy and white noise is needed to increase knowledge in improving the quality of infant sleep. Factors related to the evaluation of lavender aromatherapy and white noise in improving the quality of infant sleep, namely: maintaining the temperature of the sleeping room, keeping the sleeping room quiet, and placing the baby in a comfortable bed environment.

Keywords: Aromatherapy Lavender; White Noise; Infants Sleep Quality

INTRODUCTION

Sleep is one of need base every human, fine For need physique nor mental needs. When Sleep There is a restorative process (repairing) the body's organs (Khairiah & Fitriani, 2022) . Quality Sleep is component important from health in a way commonly associated with various results mental and physical health (Lucchini et al., 2022). Quality Sleep Babies have a big influence on growth and development baby. When Sleep baby experience repair cell brain and growth hormone production. Sleep have great effect to mental, emotional, physical health as well as system immunity body, then from That If baby own quality bad sleep as well as own disturbance Sleep can confirmed its growth will disturbed (Royhanaty et al., 2019). Baby said own quality bad sleep or experience disturbance Sleep Sleep if at night day Sleep not enough from 9 o'clock, woke up more from 3 times and took a long time to wake up more from 1 hour. During sleep baby seen rewerl , often crying and difficult For Sleep back (Khairiah & Fitriani, 2022).

Disturbance Sleep can overcome with do it in 2 ways , namely pharmacological and non-pharmacological. Non- pharmacological methods is safe alternative that is with giving aromatherapy and listening to white noise (Tay & Nelista, 2024). One of oil the most popular essentials as aroma therapy For calm as well as increase quality Sleep is lavender (Yulita & Intani, 2021). Content main lavender flowers are linalyl acetate and linalool (C₁₀H₁₈O), linalool is content chemistry active the main one who created it relaxation. By physiological, content elements therapeutic of the lavender scent will repair imbalance that occurs within system body. The smell will generated from aroma therapy will stimulates the raphe nucleus For emit transmitting serotonin secretion We For Sleep (Apriandari et al., 2024). Another way to overcome problem disturbance Sleep is with listening to white noise. White noise consists from combination variation frequency a constant, originating sound from environment, monotonous sound that can be disguise all voice from environment about enough bother. A

number of overseas research shows that listening to white noise can increase quality Sleep in a way Keep going continuously with method increase threshold limit acoustic in a way maximum so that voice noisy around not enough capable stimulating brain during Sleep. A number of research also shows that white noise affects activity electricity brain and improve quality Sleep with reduce Sleep onset latency and triggering more sleep restful so that can repair architecture Sleep somebody (Umbas et al., 2021). Listening to white noise can help baby fall asleep, baby can asleep after 5 minutes listening to white noise. White noise can played through application or song introduction Sleep integrated baby white noise sound (Riedy et al., 2021) .

Based on a number of study previous has prove influence as well as effectiveness use lavender aromatherapy and white noise for overcome disturbance Sleep as well as increase quality Sleep. Needed evaluation from a number of study the To use improve and strengthen information as well as maximizing application use lavender aromatherapy and deep white noise overcome disturbance sleep and improve quality sleep in babies.

METHOD AND MATERIAL

Design study or the method applied in writing This use literature review method, namely A good literature search from international or abroad or national or domestic. Literature review study is style used For collect related data and sources with A subject or theme certain results are obtained from various type source that is from journals, internet, books and libraries other. In research This is secondary data used is originate from results research from researcher previously. The data has been obtained quick explained in a way written easily digested by readers later.

Place search article study done with using internet media, namely search done via Google Scholar and Pubmed. At stage beginning search article research on Google Scholar and Pubmed using influence keywords lavender aromatherapy against quality sleep, the effect of white noise on quality sleep, and quality Sleep baby 18,809 articles were obtained from 2019 to 2024, will but it's coming in in criteria inclusion only 15 articles relevant research, then The critical appraisal process carried out 11 articles study.

Data analysis is explore and collect systematic data For upgrade understanding research researched and reviewed it as meet other people. This literature review For analyze it use method literature that is with method sort and classify the data obtained from results obtained in accordance criteria inclusion, and then explained One one by one and give conclusion For every the source related what is written inside it. Research article will answer objective research and then entered related theories with article study as well as assumption from researchers were also included.

RESULT

Based on results search literature with use system searches on Google Scholar and Pubmed with use keywords influence lavender aromatherapy against quality sleep, the effect of white noise on quality sleep and quality sleep in babies there are 18,809 articles study then screened based on criteria inclusion that is range time 6 year journal latest (2019-2024), type original journal in form full text. Journal speak Indonesian and other languages English, and journals themed lavender aromatherapy, white noise and quality Sleep baby . From the results filtering the so article research obtained from Google Scholar there are 7 and from Pubmed there are 4 articles, then the total is obtained through filtering is 11 articles.

DISCUSSION

Sleep is need basics that everyone needs. Need rest and sleep must enough for the body works normally (Fadlilah et al., 2020) . Ordinary baby Sleep 16-20 hours a day, good sleep is very important for growth baby, because moment Sleep growth body baby reach peak (Hartutik

& Titik Suhartini, 2023) . Based on results article collected and analyzed research in accordance with criteria inclusion there are 11 articles research taken originate from in nor overseas. All article study discuss influence aromatherapy and white noise against quality sleep in babies. There is two method For overcome disturbance sleep in babies that is with giving lavender aromatherapy and white noise.

Lavender aromatherapy has sedative and anti- neurodepressive compounds and are present content mainly linalool acetate, linalool acetate This can relax joints as well as tense muscles. Inhale this aroma reminded alpha waves and circumstances This associated with relaxation, and can treating insomnia as well can guard balance body, stress, pain headache and convulsions muscle (Ayuningtyas & Burhanto, 2021) . By physiological content elements therapeutic of the lavender scent will repair imbalance that occurs within system body. The aroma produced from lavender aromatherapy will stimulates the raphe nucleus For emit transmitting serotonin secretion For Sleep (Apriandari et al., 2024) . White noise has an effect positive to nutrition, sleep and duration crying in babies. White noise can increase quality Sleep Because sound emitted own characteristic increase or wake lulling nature brain For sleep, like voice rain, the sound of a vacuum cleaner and voices moment is in the mother's womb (Augustin et al., 2024) . White noise can cover existence another voice that could bother Sleep (Riedy et al., 2021) . System hearing man still active during sleep and react to considered signal relevant. Probability the body responds noise during Sleep increase along with increasing voice with level during Sleep to acoustic stimulus (Pratiwi et al., 2023) Played white noise stimulation every Evening for 60 minutes as introduction sleep, where white noise can influence activity electric brain and improve quality Sleep with method reduce Sleep onset latency and triggering more sleep restful so that can repair architecture Sleep somebody (Umbas et al., 2021) .

According to assumption from researcher Alone that results reviewing articles study the For overcome disturbance sleep and improve quality Sleep baby can done with two events namely, with give lavender aromatherapy and listening to white noise. In aromatherapy lavender is found content main linalool that can relax so that can more fast For make somebody fall asleep, while white noise is monotonous voice that can be cover disturbance another sound so Sleep somebody No easy interrupted and more Good .

Factors that can increase quality sleep in babies namely : guarding temperature room sleep, keep space Sleep still calm and put baby in place comfortable sleep (Möller et al., 2019) According to assumption from researcher Alone that results reviewing article study the disturbance Sleep or quality Sleep influenced by the environment around, that is temperature , safety as well as, as well as comfort room Sleep .

Type of use Lavender aromatherapy is used in 6 articles The research that has been reviewed varies including : 3 pieces studies use the type of lavender vapor inhaler comes from from study Intania Ayuningtyas and Burhanto in 2021, Vinka Apriandari, et al in 2024, and Sri Pinti Rahmawati, et al 2022. Research other namely 3 pieces studies using aromatherapy messages from lavender from research by Defi Yulta and Trya Mia Intani in 2021, Rahayu Khairiah and Fitriani in 2022, Maria Florence Tay and Yosefina Nelista 2024. Type of use from fifth research The same that is with using a white noise machine that originates from research by Eline L. Moller , et al in 2019, Samantha M. Riedy in 2021, Juliet Christy Gunawan Umbas , et al in 2021, Michaela Augustin, et al in 2024 and Meilicha AP, et al in 2023.

From 11 articles study there is several instruments that have been used For measure quality Sleep in the literature that has been reviewed, including namely PSQI, BISQ, and sheet observation. From 11 articles research that has been reviewed in the results, there are influence quality Sleep as many as 11 articles, however there is 1 study that shows that white noise has effect side remember Where constant noise continuously can Negative impact on sleep and hearing (Riedy et al., 2021) .

From several article collected research can withdrawn conclusions and evaluation that Most has show exists significant influence from lavender aromatherapy and white noise to quality Sleep baby caused Because after respondents get treatment, quality Sleep respondents increased, no often awakened as well as can Sleep back, and feelings satisfied after get up from Sleep.

CONCLUSION

Based on results reviewed 11 articles study can conclusions and results the evaluation is quality Sleep baby can improved use lavender aromatherapy and white noise, because lavender aromatherapy can gives a feeling of relaxation and white noise can make room become comfortable without disturbed voice around room Sleep .

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