

THE APPLICATION OF SLEEP HYGIENE THERAPY IN ELEMENTARY SCHOOL AGE CHILDREN WITH SLEEP DISORDERS PROBLEMS IN SERENGAN VILLAGE

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| ARTICLE INFO | ABSTRACT |
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| <p>Received: Revised: Approved:</p> | <p><i>Sleep is a repetitive neurobehavioral state of relative perceptual detachment and is not responsive to the environment, accompanied by a reclining position, calm behavior and closed eyes, which are important for health (Buysse, 2014). Sleep quantity disturbance is the non- fulfillment of normal sleep duration, which can result from difficulty initiating sleep or inability to maintain sleep. Sleep quality disorders are sleep interruptions due to awakening when sleep is of short duration but with frequent and repeated frequency (Cortese, et al. 2014). Sleep hygiene therapy is the most effective non-pharmacological therapy to overcome sleep pattern disorders (Yaremchuk, 2018). The general purpose of this case is to provide "The Implementation of Sleep Hygien in Elementary School Age Children with Sleep Disorders Problems in Serengan Village". The research method of this case study is descriptive in the form of family nursing care to explore nursing care problems for healthy school-age children. The research subjects used in this study were 1 client of school- age children who were in 1 family. The conclusion of the results of the problem of sleep pattern disorders in elementary school-aged children before the application of sleep hygiene was that they experienced sleep pattern disturbances with a total of 7 hours, after sleep hygiene the amount of sleep was 9 hours. Problems that arise before being given sleep hygiene are disturbances in sleep patterns and knowledge about sleep and rest after sleep hygiene problems are resolved</i></p> |
| KEYWORDS | Sleep Patterns, Sleep Pattern Disorders, School age children, Sleep hygiene therapy |



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INTRODUCTION

Sleep is a repetitive neurobehavioral state of relative perceptual detachment and is not responsive to the environment, accompanied by a reclining position, calm behavior and closed eyes, which are important for health (Buysse, 2014). Sleep is a repetitive neurobehavioral state of relative perceptual detachment and is not responsive to the environment, accompanied by a reclining position, calm behavior and closed eyes, which are important for health (Buysse, 2014).

Stage 1 of NREM is the lightest stage of sleep and consists of low-amplitude high-frequency EEG activity. Stage 2 NREM is the same as stage 1 NREM although eye movement stops, brain waves become slower with occasional bursts of fast waves (known as sleep spindles or K complexes). Stage 3 of NREM, also known as deep sleep or slow-wave sleep, is characterized by low-frequency, high-amplitude delta waves. REM and NREM sleep alternate in cycles throughout the night. (Marcdante and Kliegman, 2019).

School-age children need 9-10 hours of sleep in quantity (Mindell and Owens, 2015). Another study suggested that children aged 6-12 years sleeping 9- 12 hours per day with regular sleep habits can support optimal health (Paruthi et al., 2016). Sleeping with the recommended sleep duration and becoming a regular habit is associated with better health status including improved attention, behavior, learning, memory, emotional regulation, quality of life and physical and mental health. (Paruthi et al., 2016).

Sleep disturbances in children can be caused by internal and external factors. Internal factors, for example, are anything that can cause interference with ARAS. External factors, for example, are environmental factors, such as disturbing sounds, light, smells, or sleeping locations. Socio-economic conditions have also been shown to have a relationship with the occurrence of sleep disorders in children, such as humidity, cold temperatures, slums, overcrowding, and noise (Cortese, et al. 2014).

Sleep disorders that are often experienced by school-age children include: (Syafa'at, 2015; Gupta et al., 2016; Harmoniati et al., 2016; Natalita, Sekartini and Poesponegoro, 2016; Ahsan, Kapti and Putri, 2017; Wahyuningrum, Yulianti and Gayatina, 2019). Disorder of initiating and maintaining sleep, Sleep-disorder breathing, Disorder of arousal, Sleep wake transition disorder, Disorder of excessive somnolence, Sleep hyperhidrosis

There are several kinds of factors that influence sleep disorders in school- age children, starting with the child's own factors, namely genetic factors, sleeping habits, medical problems, screen time, not only that, parental factors also influence factors such as parenting, education and sleep disturbance

School-age children where at that age the child prefers what he wants including food in accordance with the statement (Hijriati., 2020) then children at the elementary school level are in two phases, namely, concrete operations and formal operations. At this stage,

children are able to think logically and concretely, they are able to use their minds so that they are able to connect one thing to another.

Physical growth is growing rapidly and their health conditions are getting better, meaning that children become more resistant to various situations that can disrupt their health. Havig Hurst suggests that there are 9 developmental tasks that should be achieved by elementary school age children, namely as follows: learning.

the physical skills needed to play various games, learning to get along with peers, developing basic skills for reading, developing basic skills for reading, writing and counting, developing concepts needed in everyday life

Benefits of Good Sleep Hygiene can prevent the development of sleep disorders and problems. This means that good sleep hygiene can help someone to have good sleep quality. Sleep disturbances and sleep during the day indicate that a person has poor sleep hygiene.

RESEARCH METHOD

This case study is descriptive in the form of nursing care to explore the problem of nursing care for clients of healthy school-age children. The approach used is a pediatric nursing care approach which includes assessment, nursing diagnoses, planning, implementation, and evaluation.

The research subjects used in this nursing research were 1 client of school-age children who were in 1 family. The criteria for the sample in this study are as follows:

- a. 9 year old school-age boy
- b. Willing to be a respondent and have signed an informed consent as proof of agreement

| No | Variabel | Definition | How to measure | Measurement result | Measuring scale |
|----|----------------------|--|------------------------------------|--|-----------------|
| 1. | <i>Sleep hygiene</i> | Sleep hygiene therapy is a habit of sleeping behavior by setting a sleep schedule and providing education aimed at getting to sleep on a regular basis involving children and parents to encourage good sleep quality. | SOP (Marcdante and Kliegman, 2019) | a. a. Good (>80) b. b. Not good (60-80) c. c. Not good (<60) | ordinal. |

| | | | | | |
|----|----------------|--|---|--|-------|
| 2. | Sleep disorder | Sleep pattern disturbance is the non-fulfillment of normal sleep duration, resulting in difficulty initiating sleep or inability to maintain sleep, in school-age children | CSHQ (Sleep disturbance questionnaire) Total score 20-60 | a. Sleep quality is not good if the score is 40-60 b. Sleep quality is not good if the score is 20-40 c. Good sleep quality score 0-20 | scale |
|----|----------------|--|---|--|-------|

The place and time of the implementation of family nursing care activities are:

a. The place

This research is in one of the families in the Serengan Village.

b. Time

Completion time

Data collection methods used are:

1. Interview (the anamnesis contains the client's identity, chief complaint, current and past or family history of illness, etc.). Sources of data from clients and families.
2. Observation and physical examination (with IPPA approach: Inspection, palpation, percussion, auscultation) on the client's body system.

The presentation of the data is adjusted to the selected descriptive case study design. For case studies, data is presented in a textual or narrative manner and can be accompanied by excerpts of verbal expressions from the case study subjective which are the supporting data. Informed consent, Anonymity, Confidentiality

RESULT AND DISCUSSION

This case study describes the results of case management and its discussion which includes the elaboration of general and specific data as well as an analysis of Mr. E's Family Nursing Care with Problems with Sleep Pattern Disorders in Elementary School Age Children in Serengan Village. In this case study, I chose 1 family as the subject of the case study, namely in accordance with predetermined criteria. An.R's subject is 9 years old, Muslim, his last education is Kindergarten. An.R is a school-age child who is given the application of sleep hygiene because he has problems with sleep patterns in the Serengan Village.

This case study takes Mr. E's family with the target of school-age children in accordance with the predetermined outcome criteria. Mr. E's family consists of Mrs. D who is 27 years old as a wife, An.R who is 9 years old as the first child. At the time of the assessment, Mr. E's family did not apply sleep hygiene and did not understand the method for dealing with sleep pattern disorders.

The results of the study on the family of Mr. E lives in a house with 3 family members, nuclear family type. The family is currently in stage IV of development, namely a family with school-age children. At this stage of development, school-age children, namely An. R has disturbed sleep patterns, namely starting and maintaining sleep, as evidenced by the results of the CSHQ questionnaire (sleep pattern disturbance). Good family PHBS is evidenced by the presence of clean water, trash cans, healthy latrines, there are family members who smoke but on the terrace, families say their children forget to eat when they play big, the family already knows the growth and development of children and PHBS at home. The current type of nuclear family is family stage IV, namely a family with school children, there are several stages of family development that have been fulfilled, namely helping children adapt to the environment, paying attention and preparing for the increasing needs and costs of living. The family said that their child often sleeps at night at 23.00 WIB and it is very difficult to start sleeping because they play too much with gadgets so that it affects their sleep patterns. The family also realizes that their child has a habit of playing cellphones and often stays up late at night because of his habit of playing games and watching YouTube shows. The family said they did not know how to get their child to sleep on time and not interfere with other activities such as eating and studying.

In the discussion, the researcher will discuss about the suitability or gap between the theory and the results of the case study of family nursing care for clients with school-age children. Activities carried out include assessment, nursing diagnosis, nursing intervention, nursing implementation, and nursing evaluation.

1. Assessment

The results of the study obtained some of the existing data on the client.

The assessment on the client was carried out on March 22, 2022.

Sleep is one of the basic human needs and is very important for human health. Sleep in children is a universal phenomenon and is very important for children's health (Marcdante and Kliegman, 2019; Fadzil, 2021). Elementary school age children are subjects who have a high risk level for the occurrence of sleep pattern disorders due to lack of sleep time. Children also mostly take advantage of existing technology such as gadgets, the internet, computers, and televisions that cause them to delay their sleep time until there is a disturbance in sleep patterns, namely starting and maintaining sleep.

Another study suggested that children aged 6-12 years sleep 9-12 hours per day with regular habits to support optimal health, sleep with recommended sleep durations and become regular habits associated with better health status including improved attention, behavior, learning, memory, emotional regulation, quality of life and physical and mental health. (Paruthi et al., 2016).

Another study suggested that children aged 6-12 years sleep 9-12 hours per day with regular habits to support optimal health, sleep with recommended sleep durations and become regular habits associated with better health status including improved attention, behavior, learning, memory, emotional regulation, quality of life and physical and mental health. (Paruthi et al., 2016). At this stage, elementary school-age children are still unable to think logically. Children's reasoning is still limited, at the age of elementary school children this is the time of school children who are having fun spending their time playing, especially in this era, many school age children have played cellphones, very few

elementary school age children are still playing traditional games. At this stage, assistance from parents/adults around them is very much needed, this is because children are starting to get to know technology. Nurses are members of the health team who can work with children and parents who can influence their development because nurses can act as educators and counselors.

2. Nursing diagnoses

Nursing diagnosis aims to identify the response of individual clients, families and communities to health-related situations (PPNI, 2017). There is an enforcement of the same diagnosis on the client, which is as follows::

a. Sleep disorder

The results of the study on An.R showed that there was a problem with sleep pattern disturbances marked by Mrs. D saying that her child often slept at night at 23.00 WIB and it was very difficult to start sleeping because playing too much gadgets had an effect on her sleep being less effective, the family also realized that his son has a habit of playing cellphones, often staying up late at night because of his habit of playing games and watching youtube shows, then from the results of a physical examination, An.R's eyes look black in the eye bag area.

The results of the study are not in accordance with the research conducted by (Bruni et al., 1996; Natalita, Sekartini and Poesponegoro, 2016). Sleep is a basic human need, including for children, a good night's sleep in children will make the achievement of growth hormone in optimal amounts. Lack of sleep or sleep duration is one of the components of sleep disorders in school children.

Another sleep disorder that often occurs in school-age children is a disturbance in initiating and maintaining sleep. Sleeping with the recommended sleep duration and becoming a regular habit is associated with better health status including improved attention, behavior, learning, memory, emotional regulation, quality of life and physical and mental health. (Paruthi et al., 2016).

Research shows that sleep disorders in school-age children can have an effect on poor academic assessment, low mood and further affect behavior problems (Maasalo et al., 2016; Stormark et al., 2019).

Based on the case study, the authors assume that lack of sleep for children affects behavior, learning, memory, emotional regulation, quality of life and physical and mental health of children so that it affects the growth process, during the deep sleep phase the body will release growth hormones that function to regulate body growth. and neuroendocrine function. Parents play an important role in the growth of children because elementary school age children are still fully dependent on their parents. Get used to it if the child can't sleep, parents invite children to talk about the reasons why they can't sleep and parents can ask what activities the child does and limit children's activities that can affect their sleep patterns.

a. Readiness to increase knowledge of Mr. E's family

Readiness to increase knowledge is the development of cognitive information related to a specific topic that is sufficient to meet health goals and can be improved (PPNI, 2017). In Mr.E's family, An.R as a client said he wanted to know what foods and drinks should not be consumed before going to bed and An.R said he didn't know what autogenic relaxation techniques were. Mrs. D as a housewife said she did not understand how to deal with children's sleep patterns.

Based on (PPNI, 2017) major signs expressed interest in learning, explained knowledge about a topic, described previous experiences according to the topic. Lack of knowledge is triggered by education level, age and occupation of family members or clients. The level of family knowledge can affect attitudes and perceptions in caring for sick family members in accordance with the theory (Handriana, 2018), the need to provide health education, especially for children aged 6-12 years who experience sleep pattern disorders and to families so that family knowledge is better and able to do the treatment properly. From the statement above the author assumes that health education is very important to increase knowledge of clients in accordance with the statement of (Sari, 2013) Health education is a process of change in a person with a view to achieving a healthy degree and has the aim of changing unhealthy behavior into healthy to individuals, groups and society.

3. Nursing interventions

Nursing planning can also be interpreted as a process of preparing various nursing interventions needed to prevent, reduce, or reduce client problems (Widagdo & Kholifah, 2016). Researchers have made nursing interventions according to the NANDA NIC NOC 2018 to 2020.

interventions arranged for clients with a diagnosis of sleep pattern disorders in An.R (D.00198), namely Observations: Identification of activity and sleep patterns, identification of patient sleep/wake cycles in planning care, identification of sleeping drugs consumed by patients. Therapeutic: Monitor / record patient sleep patterns, Monitor patient sleep patterns, and record physical conditions (eg, sleep apnea, airway obstruction, pain / discomfort, and urinary frequency) or psychological (eg, fear or anxiety), monitor food before bed and intake of beverages that can facilitate/disturb sleep, adjust environment (eg, light, noise, temperature, mattress, and bed) to promote sleep, encourage patient to establish a bedtime routine to facilitate the transition from wakefulness to sleep, facilitate to maintain a time routine the patient's usual bedtime, bedtime signs/props, and commonly used objects (eg for children: favorite blanket/toy, swing, pacifier, or story; for adults: books to read, etc.) -other) as appropriate, helps to relieve stressful situations before going to bed, helps the patient to limit naps by providing activities that promote wakefulness appropriately, help increase the number of hours of sleep, if needed, initiate comfort measures such as massage, positioning, and affective touch, adjust medication administration schedule to support patient's sleep/wake cycle, encourage use of non-containing sleeping pills REM sleep suppressor, regulate environmental stimuli to maintain a normal day-night cycle.

Education: Explain the importance of getting enough sleep, instruct the patient to monitor sleep patterns, recommend avoiding food or drinks before bed that disturbs sleep, teach the patient how to do autogenic muscle relaxation or other non-pharmacological forms to induce sleep (sleep hygiene), encourage napping days, if indicated to meet the need for sleep, teach the patient and loved ones about factors that contribute to disturbed sleep patterns (e.g., physiological, psychological, lifestyle, changes in frequent work shifts, rapid time zone changes, long working hours, and excessive and other environmental factors), discuss with the patient and family about techniques to improve sleep, provide pamphlets with information on techniques to

improve sleep, recommend the use of sleeping pills that do not contain a suppressor of REM sleep, teach autogenic muscle relaxation or other non-pharmacological methods.

Explain the importance of getting enough sleep, instruct the patient to monitor sleep patterns, recommend avoiding food or drinks before bed that interferes with sleep, teach the patient how to do autogenic muscle relaxation or other non-pharmacological forms to induce sleep (sleep hygiene), recommend sleeping during the day, If indicated to meet sleep needs, teach patient and loved ones about factors that contribute to disturbed sleep patterns (e.g., physiological, psychological, lifestyle changes, frequent shifts in work, rapid time zone changes, long working hours, and excessive workload). other environmental factors), discuss with patient and family about techniques to improve sleep, provide pamphlets with information on techniques to improve sleep, recommend the use of sleeping pills that do not contain suppressors of REM sleep, teach autogenic muscle relaxation or other non-pharmacological methods.

Interventions and outcome criteria for nursing diagnoses that are in accordance with Nanda nic noc 2018 to 2020, then interventions that are in accordance with the following guidelines: diagnosis of sleep pattern disorders, namely after intervention for 3 x 24 hours, it is expected that sleep patterns will improve with the criteria for the results of the number of hours sleep within normal limits of 9-12 hours/day, quality sleep patterns within normal limits, feeling refreshed after sleep or rest, able to identify things that improve sleep with the main interventions, namely sleep support and activity/rest education

Observation: identification of readiness and ability to receive information, identification of activity and sleep patterns, identification of sleep-disturbing factors, therapeutic: provide materials and media for regulating activities and rest, schedule the provision of health education according to agreement, provide opportunities for patients and families to ask questions, education: explain the importance of getting enough sleep, encourage adherence to bedtime habits, recommend avoiding food/drinks that interfere with sleep jarkan Factors that contribute to disturbed sleep patterns (playing games and watching youtube before bed)

Health education to overcome sleep pattern disorders, especially for An.R clients according to Notoatmodjo (2012) in (Susilo, 2012) Health education is the application or application of education in the health sector. Operationally, health education is all activities to provide and improve the knowledge, attitudes, practices of individuals, groups or communities in maintaining and improving their own health.

Nursing interventions carried out by researchers on An.R clients with a diagnosis of readiness to increase knowledge, namely: identifying readiness to receive information, providing health education on autogenic relaxation techniques and intake of food/drinks that need to be avoided before going to bed, providing opportunities to ask questions. In teaching autogenic relaxation techniques and the intake of food/drinks that need to be avoided before going to bed, the researchers used pamphlets as media.

4. Nursing Implementation

The implementation carried out on An.R's clients is carried out in accordance with the plans that have been prepared and adapted to the nursing problems found in the client. Based on the planning that has been made, the researcher carries out nursing actions that have been prepared previously. In Disorders of sleep patterns, the author in addition to taking action according to the plan also implements sleep hygiene then provides counseling about sleep hygiene to children and parents where the child will take several actions to improve good sleep quality, these actions include identifying activity and sleep patterns, identifying factors sleep disturbance, providing materials and media for regulating activity and rest, scheduling the provision of health education according to agreement, providing opportunities for patients and families to ask questions, explaining the importance of getting enough sleep, advocating keeping bedtime habits, recommending avoiding foods/drinks that interfere with sleep, teaching factors that contribute to disturbed sleep patterns (watching youtube before going to bed). While in the diagnosis of Readiness to increase knowledge, the authors conduct health counseling/education on sleep hygiene therapy, autogenic relaxation techniques and food/beverage intake that need to be avoided before going to bed, identifying readiness and ability to receive information

5. Nursing Evaluation

The results of the evaluation carried out there were nursing diagnoses that were resolved after 3 days of visits, namely the diagnosis of sleep pattern disorders with family evaluations being able to schedule children's sleep and families always trying to avoid putting gadgets near their children.

The diagnosis of readiness to increase knowledge is resolved by evaluating the family more understanding about good sleep quality for their child and An.R is able to perform autogenic relaxation techniques and understands what foods/drinks should be avoided before going to bed. From the evaluation results, the authors assume that health education regarding the application of sleep hygiene is effective in increasing knowledge related to caring for children with sleep pattern disorders.

Evaluation is an action to complete the nursing process which indicates how far the nursing diagnosis, action plan, and implementation have been successfully achieved, even though the evaluation stage is placed at the end of the nursing process (Kholifah & Widagdo, 2016). Evaluation for each nursing diagnosis includes subjective data (S) objective data (O), problem analysis (A) clients based on S and O, and re-planning (P) based on the results of the above data analysis.

In An.R's client with sleep pattern disorders and readiness to increase knowledge, the client's parents said they had understood the material presented by the client's parents also said they tried to always supervise their children from using cellphones. Families already seem to understand and are able to repeat the material presented and are able to apply independently without having to be accompanied.

CONCLUSION

1. Conclusion

- a. After applying sleep hygiene to An.R for 3 days and the results of the problem of sleep pattern disorders in elementary school-aged children before the application of sleep hygiene was carried out, namely having

disturbed sleep patterns with the amount of sleep less than the normal range, only 7 hours after being given sleep hygiene therapy. 9 hours

- b. Problems that arise in disrupted sleep patterns in school-age children before being given sleep hygiene therapy are sleep duration disorders that are less effective because there are several influences such as cellphones and television that have an impact on the development of play in children and can also have an impact on emotional, moral, social, self-concept. in elementary school age children and the level of knowledge about sleep pattern disorders and sleep hygiene is lacking.
- c. After implementing sleep hygiene, An.R's sleep pattern problem, which previously had only 7 hours of sleep, became 9 hours, meaning that the problem with An.R's sleep pattern disorder was resolved. Children's emotions decrease, children's sensitivity to the surrounding environment increases

2. Suggestion

a. For researchers

The results of this study are expected to improve the abilities, skills, and experience, as well as the insight of the researchers themselves in conducting scientific research, especially in providing nursing care to clients of healthy children of primary school age.

b. For Research Places

The results of this study are expected that nurses are able to do good cooperation in carrying out nursing care professionally and comprehensively.

c. For the Development of Nursing Science

The results of this study are expected to increase the breadth of science and technology in the field of nursing, especially in providing comprehensive family nursing care with school-age children and following the latest developments in nursing literature..

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