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Increasing Awareness of Clean and Healthy Lifestyle Patterns Through Problem Solving Learning Models in Early Childhood

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Abstract

This study aims to increase awareness and implementation of Clean and Healthy Lifestyle (PHBS) in early childhood through the implementation of Problem Solving-based learning model. This study uses Classroom Action Research (CAR) approach which is implemented in two cycles. The subjects of the study were 14 students of group B at TKS Muslimat NU XVIII Pamekasan. Data were collected through direct observation using daily child behavior assessment sheets related to PHBS, and analyzed descriptively-analytical. The results showed a significant increase in the implementation of PHBS. In cycle I, the average success of children in carrying out PHBS indicators was only 49.13%, with most children still in the category of Starting to Develop (MB). After improvements were made to learning strategies and approaches in cycle II, the average success increased to 80.56%, with most children showing behaviors Developing According to Expectations (BSH) and Developing Very Well (BSB). The indicators that experienced the most significant increase included the habit of washing hands with soap, brushing teeth regularly, and consuming vegetables and fruits every day. This study has limitations, especially in measuring behavioral changes consistently due to time constraints and the potential influence of the environment outside the school. However, the results of this study indicate that the Problem Solving learning model is effective in forming healthy living habits from an early age. This approach can be applied more widely in other early childhood education institutions as a preventive effort to build health awareness from an early age as a whole.
Keywords: Clean and Healthy Lifestyle, Problem Solving, Early Childhood Learning

Introduction

Awareness of clean and healthy living is an important foundation in building a good quality of life (Sorik et al., 2024). Cleanliness and health not only affect individuals directly, but also have a broad impact on society and the environment. Communities that have a high awareness of cleanliness and health tend to be more productive, have a better quality of life, and contribute to a healthier and more sustainable environment. However, there are still many individuals who do not understand the importance of clean and healthy living behavior (PHBS) in everyday life (Ihsani & Santoso, 2020).

Case studies in various regions show that lack of understanding of PHBS is still a major obstacle in preventing disease. For example, research conducted in one of the urban areas in Indonesia found that around 40% of the community still has the habit of defecating in the open due to the lack of sanitation facilities and low awareness of the importance of environmental cleanliness. This has an impact on the increasing incidence of diarrhea, especially in children under the age of five. In addition, another study conducted in an elementary school environment showed that only 60% of students routinely wash their hands with soap after using the toilet or before eating. In the context of public health, low awareness

of cleanliness is also seen in efforts to prevent dengue fever. Studies in several dengue endemic areas in Indonesia revealed that only 30% of households routinely eradicate mosquito nests (PSN) through 3M (Draining, Closing, and Recycling) (Setiawan, 2020). As a result, the incidence of dengue fever is still high, especially during the rainy season. Research conducted by (Rahayu, 2021) also shows that people with lower levels of education tend to have lower PHBS awareness than those who have better access to health information.

The results of a study conducted by Apriani showed that in one area in Solo City, the coverage of clean and healthy living behavior (PHBS) in the community had only reached 45.63% of the target set at 60%. This figure indicates that the achievement is still far from the expected target. Meanwhile, according to data from the Ministry of Health of the Republic of Indonesia in 2010, nationally, in 2015 only around 40% of schools had met the criteria as schools with good clean and healthy living behavior. Based on the 2015 Indonesian Health Profile, it was recorded that clean and healthy living behavior in the school environment had only reached 68%. These data show that the implementation of PHBS, especially in the school environment, still requires more serious attention and improvement efforts from various parties. Increasing awareness of clean and healthy living is not an easy task, because it requires changes in mindset, habits, and culture that have been embedded in everyday life (Perlaungan, 2023). Therefore, a systematic and effective approach is needed in education so that this awareness can be instilled from an early age. Effective education in forming awareness of clean and healthy living must be interactive, applicable, and experience-based so that students can understand and apply the principles of cleanliness and health in everyday life (Akhsanulkhaq, 2019).

One of the learning models used at the TKS Muslimat NU XVIII Pamekasan school to increase this awareness is problem solving. Where this model emphasizes the ability of students to identify, analyze, and solve problems related to cleanliness and health. By implementing this model, students are expected to be able to understand the importance of living a clean and healthy life and apply it in their daily lives. In addition, problem solving-based learning also helps in the development of critical thinking skills, analytical skills, and independence in making decisions related to cleanliness and health. Another advantage of the problem solving learning model is its ability to improve students' social skills. In this learning process, students often work in groups to discuss and find solutions to a problem (Budi, 2020). Through this social interaction, they learn how to work together, communicate effectively, and consider various perspectives before making decisions. This is very important in the context of health education, because cleanliness and health are not only individual responsibilities but also collective responsibilities in the community.

In addition, the application of the problem solving model in learning can also increase students' learning motivation. Because this model requires their active involvement in finding solutions to real problems, they become more enthusiastic and motivated to learn (Putri, 2018). A sense of ownership of the solutions they find also encourages them to truly implement clean and healthy living behaviors in their daily lives. Therefore, the problem

solving learning model can be considered an effective strategy in increasing awareness and practice of clean and healthy living in the long term. The implementation of PHBS carried out by teachers for early childhood needs to be accompanied by intensive and continuous supervision and observation. This is important to ensure that each activity is truly understood and carried out by children consistently. The success of instilling PHBS does not only depend on the role of teachers in the school environment, but also requires synergistic cooperation between teachers and parents. The persistence of both parties in instilling clean and healthy living habits, both at school and at home, is an important foundation in supporting optimal child growth and development (Rohmah, 2023).

Early childhood is a golden period in a child's life, where various aspects of development, both physical, social, emotional, and cognitive, experience very rapid growth. Therefore, this phase is the perfect time to develop children's potential, character, and independence, including in terms of maintaining personal and environmental hygiene. Providing appropriate educational services at an early age is not only limited to fulfilling children's basic needs, but also a long-term investment in improving the quality of human resources. With the support of an educational and responsive environment, children's development and growth are expected to take place optimally, both in terms of health and the ability to live socially in society.

In the context of formal education, the problem solving learning model can be applied through various methods, such as case studies, simulations, and real problem-solving-based projects. Students are invited to identify health problems in their environment, analyze the causes and impacts, and develop solutions that can be implemented directly. This approach not only improves their conceptual understanding, but also forms a character that cares about their own health and the health of others. Thus, problem solving-based education not only focuses on increasing theoretical knowledge, but also encourages more positive changes in attitudes and behaviors towards cleanliness and health. The application of this method in various levels of education can be a strategic step in creating a healthier and more competitive generation in the future. Based on the explanation above and the results of previous studies, researchers feel called to examine more broadly with a different perspective by raising the title "Increasing Awareness of Clean and Healthy Lifestyle Patterns Through the Problem Solving Learning Model in Early Childhood at TKS Muslimat NU XVIII Pamekasan".

Methods

This research is a classroom action research, which is a systematic study of the learning process involving actions that are intentionally designed and occur in a classroom environment. These actions are given by the teacher or carried out by students under the direction of the teacher, with the aim of improving the quality of learning (Arikunto, 2014).

The sample in this study were students at TKS Muslimat NU XVIII Pamekasan group B totaling 14 students. The data collection technique was carried out through observation sheets, while the data analysis technique used the analytical descriptive method. This classroom action research refers to the model developed by Kemmis and Taggart. Then the

data obtained during the learning process were analyzed using the percentage technique using the formula:

$$P = \frac{F \quad X\,100}{N}$$

Information:
P = Percentage result
F = Number of students who completed
N = Number of frequencies

Children's activities are said to have increased if the percentage of children's activity results shows an upward trend based on observations carried out continuously. Each observed aspect is assessed using a score scale ranging from 1 to 5, with the following interpretations:

Table 1. Score Scale for Each Indicator

Score	Percentage	Information	Category
1	0% - 25%	Shows minimal participation and needs a lot of improvement	BB
2	25% - 50%	Shows moderate engagement, but still needs improvement	MB
3	50% - 75%	Demonstrate active participation with adequate results	BSH
4	75% - 100%	Demonstrate optimal involvement and achievement in activities	BSB

In the final stage, all the scores that have been given are calculated as an average. The average value obtained is then confirmed with the criteria that have been set to objectively assess the level of increase in children's activity.

Result

Efforts to increase awareness of clean and healthy lifestyles among children of TKS Muslimat NU XVIII Pamekasan are by conducting careful observations of the problems that occur in the environment. This observation is a crucial stage in the research because it allows researchers to understand the real conditions faced by children and the factors that influence the implementation of clean and healthy lifestyles in schools.

Picture 1. Washing Hands

In this study, the approach used is the problem solving learning model, which is a method that encourages children to actively find and understand solutions to problems they face in everyday life. This model is not only oriented to cognitive aspects, but also includes social and emotional aspects, so that learning becomes more contextual and meaningful for children. This activity begins with the teacher conveying a simple situation or problem related to a clean and healthy lifestyle. For example, the teacher presents a story or picture about a child who is sick because he does not wash his hands before eating. The children are then invited to discuss in groups to identify problems, such as why the child is sick and how to prevent it. One important aspect that is the focus of this study is the child's social development, which plays a very important role in forming awareness of a clean and healthy lifestyle. The aspects of social development observed include several main indicators, namely:

Table 2. Results of Indicators and Description of Implementation of Clean and Healthy Lifestyle Patterns

Indicator	Information	Percentage	Category
Wash your hands with soap and running water	Children are able to demonstrate their skills in washing their hands with soap and running water alternately correctly and according to procedures.	31.6%	MB
Cutting fingernails and toenails	Children are able to demonstrate responsibility for personal hygiene by routinely cutting their fingernails and toenails every week.	35%	MB
Brush your teeth after eating and before going to bed	Children are accustomed to brushing their teeth after eating and before going to bed and can discuss the importance of maintaining dental and oral hygiene.	33.3%	MB
Eat vegetables and fruits every day	Children have the habit of consuming vegetables and fruit every day and understand the importance of healthy food for the body.	33.3%	MB
Choose clean and	Children are able to choose healthy and	33.3%	MB

healthy snacks and throw rubbish in the right place	clean snacks and get used to throwing rubbish in the right place.		
Exercise regularly	Children are accustomed to doing sports regularly, such as gymnastics, as part of a healthy lifestyle.	40%	MB
Use a clean toilet	Children demonstrate responsibility for cleanliness by always flushing the toilet after use.	28.3%	MB

Through observations of these aspects of social development, researchers can gain a deeper understanding of the challenges and opportunities in increasing children's awareness of clean and healthy living patterns. By implementing the Problem Solving learning model, it is hoped that children will not only understand the importance of cleanliness and health, but also be able to internalize these values in everyday life.

Actions in Cycle I were carried out in one meeting with a duration of 60 minutes, starting at 07.30 WIB. This cycle consists of four stages, namely planning, implementation, observation, and reflection. The results of the reflection are used as a basis for determining corrective actions in the next cycle. At each meeting, children work on activities in groups. In Cycle I, activities focused on the theme "My Environment." Before the implementation, teachers and researchers had prepared a design of the activities to be implemented.

Table 3. Results of Improving Clean and Healthy Lifestyle Patterns Cycle 1

No	Indicator	Percentage	Category
1	Wash your hands with soap and running water	50%	MB
2	Cutting fingernails and toenails	47%	MB
3	Brush your teeth after eating and before going to bed	51.6%	BSH
4	Eat vegetables and fruits every day	45%	MB
5	Choose clean and healthy snacks and throw rubbish in the right place	53.3%	BSH
6	Exercise regularly	50%	MB
7	Use a clean toilet	47%	MB
Average success rate		**49.13%**	**MB**

The table above shows the level of implementation of various indicators of clean and healthy lifestyles among children based on the percentage of achievement and development categories. Overall, there are still many indicators in the Starting to Develop (MB) category, which indicates that this habit has not been fully embedded in children's daily lives and still requires more intensive habituation efforts.

The indicator of washing hands with soap and running water shows an achievement of 50%, which means that some children have started to implement this habit, but still needs improvement to be done more consistently. The same thing happened to the habit of cutting fingernails and toenails which only reached 47%, indicating that many children are not yet fully aware of the importance of maintaining nail cleanliness as part of a healthy lifestyle. The habit of brushing teeth after eating and before going to bed has an achievement of 51.6% and

is included in the Developing According to Expectations (BSH) category. This shows that the practice of brushing teeth is starting to become a good habit for children, although it can still be improved further. On the other hand, the habit of consuming vegetables and fruit every day is still at 45% and is included in the Starting to Develop (MB) category, which indicates the need for education and motivation so that children are more accustomed to consuming healthy foods. The selection of clean and healthy snacks and the habit of throwing garbage in its place showed an achievement of 53.3% and is included in the Developing According to Expectations (BSH) category. This indicates that most children have begun to understand the importance of choosing healthy foods and maintaining environmental cleanliness, although it still needs to be improved to become a stronger habit. Meanwhile, the habit of exercising regularly is still at 50% and using a clean toilet only reaches 47%, both are still in the category of Starting to Develop (MB). This shows that awareness of the importance of physical activity and sanitation hygiene has not been fully formed.

Picture 2. Eat Healthy Food

In general, these data indicate that although some clean and healthy lifestyle habits have begun to develop, there are still many aspects that require more attention in the process of habituation and education. A more effective and interactive approach is needed so that children can better understand, internalize, and apply healthy habits consistently in their daily lives. The average success rate from the table above is around 49.13%. This shows that overall, the implementation of clean and healthy lifestyles is still at a level that needs to be improved to become a better habit among children.

Actions in Cycle II were carried out in one meeting. Learning lasted for 60 minutes, starting at 07.30 WIB. Learning activities were carried out in accordance with the Teaching Module, by applying an understanding of problem solving in implementing clean and healthy living behaviors. This cycle includes four stages, namely planning, implementation, observation, and reflection.

Table 4. Results of Improving Clean and Healthy Lifestyle Patterns Cycle II

No	Indicator	Percentage	Category
1	Wash your hands with soap and running water	81%	BSB
2	Cutting fingernails and toenails	75.8%	BSB
3	Brush your teeth after eating and before going to bed	77%	BSB
4	Eat vegetables and fruits every day	85.1%	BSB
5	Choose clean and healthy snacks and throw rubbish in the right place	90%	BSB
6	Exercise regularly	80%	BSB

7	Use a clean toilet	75%	BSH
Average success rate		**80.56%**	**BSB**

The table above shows the level of implementation of clean and healthy living habits in children based on several main indicators. In general, the results show that most children have good awareness in maintaining their personal hygiene and health.

Picture 4. Cutting Nails

In the indicator of washing hands with soap and running water, 81% of children have implemented it well, indicating that this habit has begun to form although it still needs to be strengthened to be more consistent. A similar thing can be seen in the habit of cutting fingernails and toenails, with an implementation rate of 75.8%. Although this figure is quite high, there are still some children who do not do it routinely. The habit of brushing teeth after eating and before going to bed reached 77%, indicating that children already understand the importance of maintaining dental and oral health, although there are still some who do not do it consistently. Meanwhile, the level of daily vegetable and fruit consumption is at 85.1%, indicating that children have a good awareness of the importance of healthy food in supporting growth and health. In terms of choosing clean and healthy snacks and the habit of throwing garbage in its place, children show a very good level of awareness with a percentage of 90%. This shows that they have understood the importance of choosing safe food to consume and maintaining environmental cleanliness.

Likewise, the habit of exercising regularly, which reached 80%, indicates that most children have become accustomed to doing physical activities to maintain their health. In terms of maintaining the cleanliness of toilets, the implementation rate reached 75%, indicating that children are already aware of the cleanliness of sanitation facilities, although further education is still needed to ensure that this habit is implemented consistently. The average success rate based on the table above is around 80.56%. These results indicate that children in the environment have a fairly good level of awareness in implementing a clean and healthy lifestyle. However, more intensive guidance and education are still needed to improve consistency in certain habits, such as maintaining dental hygiene, routinely cutting nails, and using the toilet properly. Thus, it is hoped that a clean and healthy lifestyle can become part of the habits that are inherent in their daily lives.

So there is a significant increase in clean and healthy lifestyle patterns from cycle I to cycle II that have been implemented in TKS Muslimat NU XVIII. Where there is cycle I, the

average success rate only reached 49.13% with the category (MB), indicating that most indicators have not been implemented optimally. However, in cycle II, it showed a significant percentage jump, with an average success rate of 80.56%, an increase of more than 30% compared to cycle I. All indicators experienced a very good increase, even six of the seven indicators reached the category (BSB), while one indicator, namely the use of clean latrines, reached the category Very Good Hygienic (BSH). The biggest increase was seen in the habit of washing hands with soap and running water, consuming vegetables and fruits every day, and choosing healthy snacks, all of which reached figures above 80%, indicating success in building awareness of clean and healthy lifestyle patterns.

Discussion

Early childhood education does not only focus on achieving academic aspects, but also comprehensively includes the formation of character, attitudes, and positive living habits. One important aspect that needs to be instilled from an early age is the Clean and Healthy Lifestyle (PHBS) (Rohmah, 2023). Clean and healthy living habits are not just physical routines, but part of the formation of responsible behavior towards oneself, others, and the environment. In this context, the Problem Solving Learning Model is one of the most relevant and effective approaches to implement, as implemented at TKS Muslimat NU XVIII Pamekasan. Thus, the implementation of PHBS through the Problem Solving learning model is not only effective in forming healthy physical habits, but is also able to instill character values and responsibilities that are essential for child development. This strategy needs to continue to be developed and integrated into educational practices in various PAUD institutions as part of an effort to form a healthy, intelligent, and characterful generation from an early age.

Clean and Healthy Living Behavior (PHBS) at the Early Childhood Education (PAUD) level includes a series of fundamental activities that are very crucial in shaping children's character and lifestyle, such as washing hands with soap, brushing teeth regularly, disposing of garbage in its place, choosing healthy food, to using toilets correctly and responsibly (Lawolo, 2024). These activities seem simple, but have a significant long-term impact on the development of children's physical, emotional, and social health.

According to the Ministry of Health, introducing PHBS from an early age will contribute to the formation of healthy habits that are carried into adulthood. Children who are trained to maintain cleanliness and health from an early age tend to have stronger immune systems, lower frequency of visits to health services, and have higher social awareness in maintaining the cleanliness of the environment and the people around them. In the long term, this not only improves the quality of life of individuals but also helps reduce the burden on public health in general (Lorensyifa et al., 2022). However, in the context of early childhood development, conveying information verbally or one-way is not enough. Children at PAUD age are still in the concrete-operational thinking stage according to Piaget's cognitive development theory, where they understand the world through real experiences, direct interactions, and meaningful activities. Therefore, a participatory and experience-based learning approach, such as the Problem Solving model, is very relevant and effective (Nurlina, 2021).

The Problem Solving learning model not only invites children to receive information, but also positions children as the main actors in the learning process. When children are faced with real problems. For example, why hands should be washed before eating or how to choose healthy snacks. They are encouraged to think, find out, and make decisions. This process involves observation, exploration, discussion, and direct practice that strengthens their

understanding as a whole. Thus, the values of PHBS are not only understood theoretically, but are truly internalized through experience and realized through personal reflection.

This approach also strengthens children's social skills, such as working together with friends, respecting the opinions of others, and taking responsibility for the choices they make. All of these are important aspects in the holistic development of early childhood. In other words, through the Problem Solving learning model, the formation of PHBS not only creates children who are physically healthy, but also forms individuals who are resilient, independent, and aware of the importance of their role in creating a clean and healthy environment. The Problem Solving learning model is a constructivist approach based on the theories of Jean Piaget and Vygotsky, which state that children learn best when they actively build knowledge through interaction with the environment (Suryana, 2022). In this model, the teacher acts not as the only source of information, but as a facilitator who helps children explore problems, find solutions, and reflect on their experiences.

In TKS Muslimat NU XVIII Pamekasan, this model is implemented by presenting simple real cases, but in accordance with the world of children. For example, teachers can start activities by reading a story about a child who fell ill because he did not wash his hands after playing. Children are then invited to discuss: "What caused the child to get sick?", "What should be done?" This kind of discussion sharpens children's logic, trains their ability to recognize cause-and-effect relationships, and at the same time builds empathy for social situations. After identifying the problem, children practice directly as a form of problem solving. For example, they are invited to the sink to practice the correct way to wash their hands using soap, or make a schedule for brushing their teeth together. This activity provides real experiences that they can remember and repeat outside of school.

One of the advantages of this approach is the high emotional and social involvement of children. Children do not just do something because they are told to, but because they understand the reasons and urgency. They feel involved and have responsibility for the solutions produced together. This is in line with the opinion of (Hurlock, 2000), which states that active involvement of children in the learning process will increase interest, understanding, and retention of the material being taught. Interaction between children in solving problems also supports social development such as cooperation, communication, and empathy. For example, when discussing the importance of throwing garbage in its place, children will share their views and learn to respect their friends' opinions. This is an important foundation in character development from an early age.

The success of the Problem Solving model cannot be separated from the supportive learning environment and the active role of teachers. Teachers must be able to create an open, safe, and fun atmosphere so that children are free to express themselves and explore. Learning media also needs to be varied, such as puppets, short videos, role-playing, and visual posters related to PHBS. In addition, support from parents and the home environment is very important. Teachers can involve parents in follow-up activities at home, for example by providing activity sheets about healthy eating patterns or creating a handwashing corner with children at home. This collaboration strengthens learning and ensures that healthy habits taught at school are also applied in the family environment.

Conclusion

Based on the research results listed in Table 3.1 and Table 4.1, there was a significant increase in the implementation of clean and healthy lifestyles after intervention through the learning cycle. In Cycle I, the average success rate only reached 49.13%, with most indicators still in the category of Starting to Develop (MB) or Developing According to Expectations (BSH). This shows that children's awareness of the importance of clean and healthy living habits is still relatively low, so it requires further assistance and reinforcement. However, in Cycle II, there was a fairly drastic increase, where the average success rate rose to 80.56%, with all indicators in the category of Developing Very Well (BSB) or Developing According to Expectations (BSH). This increase shows that the learning methods applied are effective in improving children's understanding and habits related to clean and healthy lifestyles. Indicators that experienced significant increases include washing hands with soap, brushing teeth regularly, and consuming healthy foods. Thus, a problem-solving-based learning approach can be used as an effective strategy in increasing children's awareness and skills in implementing healthy lifestyles in everyday life.

References

Ahsanulkhaq, M. (2019). Membentuk Karakter Religius Peserta Didik Melalui Metode Pembiasaan. *Jurnal Prakarsa Paedagogia*, *2*(1). https://doi.org/10.24176/jpp.v2i1.4312

Arikunto, prof. dr suharsimi. (2014). *Prosur Penelitian Suatu Pendekatan Praktik*. PT RINEKA CIPTA.

Ihsani, I., & Santoso, M. B. (2020). Edukasi Sanitasi Lingkungan Dengan Menerapkan Perilaku Hidup Bersih Dan Sehat (Phbs) Pada Kelompok Usia Prasekolah Di Taman Asuh Anak Muslim Ar-Ridho Tasikmalaya. *Prosiding Penelitian Dan Pengabdian Kepada Masyarakat*, *6*(3), 289. https://doi.org/10.24198/jppm.v6i3.22987.

Murtiyasa, B., & Al Karomah, I. I. (2020). The impact of learning strategy of problem solving and discovery towards learning outcomes reviewed from students learning motivation. *Universal Journal of Educational Research*, *8*(9), 4105–4112. https://doi.org/10.13189/ujer.2020.080936

Parlaungan, Loihala, Tambunan, Mensen, & T. (2023). *Pendidikan Kesehatan melalui 8 (Delapan) Pesan Perilaku Hidup Bersih dan Sehat (PHBS) pada Guru TK/PAUD.* Penerbit Nem.

Putri, A. U., Rusyati, L., & Rochintaniawati, D. (2018). The Impact of Problem-Solving Model on Students' Concept Mastery and Motivation in Learning Heat Based on Gender. *Journal of Science Learning*, *1*(2), 71. https://doi.org/10.17509/jsl.v1i2.9793

Rahayu, P. (2021). Pengaruh Pendidikan terhadap Kesadaran Perilaku Hidup Bersih dan Sehat di Indonesia. *Jurnal Kesehatan Masyarakat*, *17*(2), 112–125.

Setiawan. (2020). Studi Epidemiologi Demam Berdarah di Wilayah Endemis Indonesia: Peran Kesadaran Masyarakat dalam Pencegahan. *Jurnal Epidemiologi Dan Kesehatan Lingkungan*, *13*(3), 98-110.

Sorik, D., Utara, S., Siregar, M., Putri, S., Harahap, R., Nasution, A. P., & Afriana, L. (2024). Edukasi Perilaku Hidup Bersih dan Sehat (PHBS) Kepada Anak di Desa Serok, Sumatera Utara. *Jurnal Pengabdian Masyarakat Darmais (JPMD)*, *3*(1), 26–33.

Rohmah, Eliya. *Buku Ajar Promosi Kesehatan untuk Mahasiswa Kesehatan*. Rena Cipta Mandiri, 2023.

Rohmah, Riza Mi'rotul, Arba'iyah Yusuf, and Rohmatul Azizah. "Peran pendidikan holistik

bagi pengembangan karakter anak usia dini." *Jurnal Dimensi Pendidikan Dan Pembelajaran* 11.1, 2023, 154-165.

Lawolo, Niat Desita Sari, and Rizki Ramadhani. "Analisis Perilaku Hidup Bersih dan Sehat (PHBS) di PAUD Desa Somolo-Molo Kecamatan Somolo-Molo Kabupaten Nias." *Khirani: Jurnal Pendidikan Anak Usia Dini* 2.4, 2024, 01-21.

Lorensyifa, A., Nur'ainun, B., Nayoan, N. R. A. N., Astria, L. R. D., Yustrianti, S. M., & Chairani, H. V. C. (2022). *Isu Masalah Kesehatan Penyakit Menular dan Penyakit Tidak Menular*. CV. DARIS INDONESIA. http://repository.uinsu.ac.id/14033/1/layout_8.pdf

Nurlina, Nurfadilah, and Aliem Bahri. *"Teori belajar dan pembelajaran."* Makassar: CV. Berkah Utami, 2021.

Suryana, Ermis, Marni Prasyur Aprina, and Kasinyo Harto. "Teori Konstruktivistik dan Implikasinya dalam Pembelajaran." *JIIP-Jurnal Ilmiah Ilmu Pendidikan* 5.7 (2022): 2070-2080.

Hurlock, E.B. *Psikologi Perkembangan: Suatu Pendekatan Sepanjang Rentang Kehidupan*. Erlangga, (2000).