

RESEARCH ARTICLES

The Level Of Parental Knowledge About Atopic Dermatitis Disease Is Related To The Incidence Of Recurrence Of Atopic Dermatitis In Children At Haji Medan Hospital

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Abstract: Atopic dermatitis is an inflammatory skin disease characterized by recurrent intensive and chronic itching. Atopic dermatitis can occur from childhood to adulthood. This disease is classified as a residual disease, which is a disease that can recur after being declared cured. The recurrence of atopic dermatitis is often caused by the lack of parental knowledge of the causative factors so that it can cause recurrence in the sufferer. This study aims to determine the relationship between the level of parental knowledge about atopic dermatitis disease and the incidence of recurrence of atopic dermatitis in children at Haji Medan Hospital. Data collection in this study used primary data, obtained from respondents by filling out questionnaires that were distributed to parents who had children suffering from atopic dermatitis and came to Haji Hospital Medan for treatment. Questionnaire containing questions related to research titles. Based on the results of the study, there was a relationship between the level of parental knowledge about the recurrence of atopic dermatitis ($p = 0.000$). The results were obtained that the better the level of parental knowledge, the less likely it is to occur a recurrence of atopic dermatitis in children.

Keywords: Level of Knowledge, Relapse, Atopic Dermatitis

INTRODUCTION

Atopic dermatitis is an inflammatory skin disease characterized by recurrent

intensive and chronic itching. Atopic dermatitis can occur from childhood to adulthood. This disease is classified as a

residual disease, which is a disease that can recur after being declared cured. The clinical manifestations of atopic dermatitis vary according to age. This disease of atopic dermatitis is divided into 3 stages: infantile atopic dermatitis, occurring in newborns up to 2 years old, atopic dermatitis in children, ages 2 to 11 years, and atopic dermatitis in adults. The prevalence of atopic dermatitis itself has increased over the past three decades.

It is estimated that about 10-20% of children and 1-3% of adults in developing countries suffer from atopic dermatitis. The disease is also associated with other atopic events such as allergic rhinitis, food allergies and asthma which are often recognized as atopic marches. The prevalence rate of atopic dermatitis increases, and atopic dermatitis affects 15-30% of children and 2-10% of adults.¹ Furthermore, according to the International Study of Asthma and Allergies in Childhood (ISAAC), among 56 countries, the prevalence of atopic dermatitis in children varies from 0.3% to 25%. In a population-based study in the United States, the prevalence of atopic dermatitis in children aged 5-9 years was estimated to be 17.2%. Atopic dermatitis is most common in early life, 45% in the first 6 months of life, 60% in the first year of life, and 85% in the age of under 5 years.⁴ In Indonesia, about 70% of cases of atopic dermatitis begin to occur at the age of under 5 years. From the

data issued by the Medan City Government Health Office related to dermatitis, there are 3-4% of cases that occur in the city of Medan every year.²

The causes of atopic dermatitis are generally due to 2 factors, namely endogenous factors and exogenous factors, endogenous factors include genetics, relatively dry skin conditions (skin barrier dysfunction), hypersensitivity and psychological disorders. Meanwhile, exogenous factors are irritants, allergens, climate change (increased temperature and humidity), and the environment.³

From the above factors, children are more susceptible to atopic dermatitis compared to adults. The recurrence of the disease is caused because the skin in children is not able to retain moisture properly, but the child's immune system against atopic dermatitis reacts more strongly to irritation. Atopic dermatitis often recurs due to allergic reactions, for example due to weather factors, food, animal fur, and clothing materials used, so it is necessary for parents to know about the factors for atopic dermatitis recurrence.⁴

The recurrence of atopic dermatitis is often caused by parents' ignorance of the causative factors so that it often goes unnoticed by parents, for example, parents consider the use of shampoo and bath soap in children to be the same even though each child has a different skin resistance. In

addition to the example above the level of parental knowledge of the food given to children also varies, it is often a triggering factor for the recurrence of atopic dermatitis, for example, parents think formula milk is the same, but in children who have an atopic history of formula milk can cause a recurrence of atopic dermatitis. In addition to formula milk, there are several foods that are considered safe by parents such as crabs, chocolate, eggs, nuts and sea fish which are actually the cause of the recurrence of atopic dermatitis.²

METHOD

This study is a descriptive observational research with a cross sectional approach with questionnaire filling. Ethical approval was obtained from the Health Research Ethics Commission, Faculty of Medicine, University of Muhammadiyah North Sumatra No.1000/KEPK/FKUMSU/2023. This research was conducted from March to June 2023 at the Medan City Hajj Hospital. This analysis uses primary data obtained from filling out questionnaires to 53 respondents. Inclusion criteria: Parents who have children aged 0-18 years who suffer from atopic dermatitis, are willing to sign an informed consent. Exclusion criteria: The data filled in the questionnaire is not clear, the data filled in is more than one answer.

RESULT

Table 1. Respondent Characteristics

Respondent Characteristics	Frequency (n)	Percentage (%)
Age of Parents		
<20 Year	6	11.3
20 - 35 Year	37	69.8
>35 Year	10	18.9
Total	53	100
Child's Age		
<1 Year	5	9.4
1-5 Year	17	32.1
5-10 Year	13	24.5
11-15 Year	13	24.5
>15 Year	5	9.4
Total	53	100
Parent Education		
Primary school	3	5.7
Junior High School	6	11.3
High school	40	75.5
College	4	7.5
Total	53	100
Parenting Work		
House Wives	30	56.6
Civil Servent/Police/Soldier	6	11.3
Private employees / State-Owned Enterprises	4	7.5
Entrepreneur	13	24.5
Total	53	100

The distribution of research subjects based on the researcher's inclusion criteria can be seen in table 1, namely the respondent characteristic data shows that the majority of

parents are 20-35 years old with a total of 37 people (69.8%), the majority of children are 1-5 years old with a total of 17 people (32.1%). The highest number of parents is the high school education level reaching 75.5 and the majority of parents in this study are housewives with a total of 30 people (56.6%).

Table 2. Knowledge Level

Knowledge Level	Frequency (n)	Percentage (%)
Low Educated	2	3.8
Educated	10	18.9
Good Educated	41	77.4
Total	53	100

Table 3. Recurrence of Atopic Dermatitis

Recurrence of dermatitis	Frekuensi (n)	Persentase (%)
No relapse	49	92.5
Relapse	4	7.5

Based on the data in table 2 about the level of knowledge, it was found that the majority had a good level of knowledge with a total of 41 people (77.4%) and in table 3, the majority of atopic dermatitis recurrence was obtained by the majority of 49 people (92.5%).

This means that the majority of patients do not experience a recurrence of atopic dermatitis. while only a small part experienced a recurrence.

Table 4. Mann-Whitney analysis

Recurrence of dermatitis	Mean Rank	Sum Of Ranks	Sig.
No Relapse	28.84	1413	0.000
Relapse	4.50	18	

Based on the data in table 4, there is a relationship between the level of knowledge and the recurrence of atopic dermatitis in children. The results of the statistical test using Mann-Whitney showed a p-value of 0.000, which showed a significant relationship between the knowledge level variable and the recurrence of atopic dermatitis.

Based on table 4, information was obtained that the mean rank of No Recurrence was 28.84 with a Sum Of Ranks of 1413. Meanwhile, in the relapse, a mean rank value of 4.50 was obtained with a total ranking value of 18. In addition, the Sig. value of 0.000 was obtained. The value < 0.05 . These results suggest that the higher the level of parental knowledge about atopic dermatitis, the lower the likelihood of recurrence of the disease in children. A good level of knowledge in parents can contribute to managing and preventing recurrence of atopic dermatitis in children.

DISCUSSION

Based on the results of a survey of 53 parents of atopic dermatitis patients, as many as 2 people (3.8%) had a low level of knowledge, 10 people (18.9%) had a sufficient level of knowledge, and the

majority of 41 people (77.4%) had a good level of knowledge. Thus, this study shows that most of the parents who are the subjects of the study have a good level of knowledge about atopic dermatitis.

This can be considered a positive factor, as good knowledge can help parents in preventing and managing the recurrence of this disease in their children. In the research conducted at the Skin Polyclinic of Toto Hospital, Bone Bolango Regency by M. Hadi about the relationship between the level of knowledge of mothers and atopic dermatitis, namely Mother's Knowledge of Atopic Dermatitis, it can be seen that the number of respondents who have good knowledge is 12 people, and respondents who have less knowledge as many as 2 people. The research is in line with research conducted at the skin polyclinic of Haji Hospital Medan found that as many as 2 people were categorized as having a low level of knowledge, 10 people had a sufficient level of knowledge, and the majority of 41 people had a good level of knowledge. It's just that in M. Hadi's research, results showed that respondents who had more or less knowledge than respondents who had good knowledge. In a study conducted at the skin polyclinic of Haji Hospital Medan, it was shown that respondents who had good knowledge were more than respondents who had less knowledge. From these results, it is related

to hearing about the recurrence of atopic dermatitis.⁵

Parents who have a good level of knowledge about atopic dermatitis tend to have a deeper understanding of the disease. The role of social media has an important role in influencing parents' level of knowledge. In addition, good parental knowledge can be gained from consultation with a health professional to learn how to manage atopic dermatitis in their children.⁵

The knowledge factor is not only obtained through literacy, but social and economic relationships can also play a role in increasing parental knowledge. Hearing support from family, friends, and the community can help in gaining a broader knowledge of atopic dermatitis. Economic level can also affect the level of knowledge, with good economic conditions, the elderly tend to have easier access to health facilities.⁶

Factors that play a role in improving knowledge about atopic dermatitis can provide parents with an understanding of the early symptoms, understand the triggers, and carry out the necessary care and treatment more effectively.

Based on the results of a survey of 53 parents of atopic dermatitis patients conducted at the skin polyclinic of Haji Medan Hospital, as many as 49 people (92.5%) did not experience a recurrence of atopic dermatitis, while 4 people (7.5%)

experienced a recurrence. This means that the patient's majority does not experience a recurrence of atopic dermatitis, while only a small percentage experience a recurrence. This data gives an idea that the recurrence of atopic dermatitis in children in this study is still relatively low. This can be considered a positive outcome, as disease recurrence can have a negative impact on the patient's quality of life and require more intensive care.

This result can be considered a positive outcome because it shows that the majority of patients can manage and control the symptoms of their disease well, so that they do not experience a recurrence. This can be attributed to the level of good knowledge that the patient's parents have about atopic dermatitis, as has been revealed in the results of previous studies. A good level of knowledge about atopic dermatitis in the patient's parents can be one of the important factors that help them in recognizing early symptoms and taking appropriate precautions.

In addition, adherence to the treatment and treatment plan recommended by medical personnel can also affect the low relapse rate. If the patient consistently follows the given treatment, including the use of ointments or creams, good skin cleansing, and moisturizer, then the likelihood of a recurrence will be lower.⁷

Based on the results of the research that has been conducted, it is shown that there is a significant relationship between the level of parental knowledge about atopic dermatitis disease and the incidence of recurrence of atopic dermatitis in children at Haji Hospital Medan. In a study in a journal with the same research on the relationship between the level of parental knowledge about atopic dermatitis and the incidence of dermatitis recurrence in children at the Skin Polyclinic of Toto Hospital, Bone Bolango Regency. And it was found that the results of the Frequency of Mother's Knowledge about Atopic Dermatitis Based on the frequency distribution table according to Mother's Knowledge about Atopic Dermatitis, the number of respondents who had good knowledge was 12 people (46.2%), and respondents who had less knowledge as many as 14 people (53.8%). This shows that respondents who have more or less knowledge than respondents who have good knowledge.

Based on the frequency distribution table according to the incidence of Atopic Dermatitis Recurrence, it can be seen that the number of respondents who experienced recurrence was 15 people (57.7%), and respondents who did not experience an incidence as many as 11 people (42.3%). This shows that respondents who experienced recurrence events were more than respondents who did not experience

recurrences. The results of the analysis of the relationship between the level of knowledge of mothers about atopic dermatitis disease and the incidence of recurrence of atopic dermatitis in children at the Skin Polyclinic of Toto Hospital, Bone Bolango Regency, found that there were as many as 12 (85.7%) mothers who had less knowledge of atopic dermatitis recurrence in their children. Meanwhile, among mothers who have good knowledge, there are 3 (25.0%) who experience a recurrence of atopic dermatitis in their children. The results of the study can be concluded that there is a relationship between the level of knowledge of mothers about atopic dermatitis disease and the incidence of recurrence of atopic dermatitis in children at the Skin Polyclinic of Toto Hospital, Bone Bolango Regency. The results of this study are in line with the research conducted by M. Hadi which showed that the relationship between the level of knowledge of mothers about atopic dermatitis disease and the occurrence of recurrence of atopic dermatitis in children at the Skin Polyclinic of Toto Hospital, Bone Bolango Regency.

This can be interpreted that the higher the level of parental knowledge about atopic dermatitis, the lower the likelihood of recurrence of the disease in children. A good level of knowledge in parents can contribute to managing and preventing recurrence of atopic dermatitis in children. Relapse rate

Atopic dermatitis in children is closely related to the level of parental knowledge about the disease. A good level of knowledge in parents about atopic dermatitis allows them to recognize and avoid factors that can trigger recurrence.⁸ Moreover, Good knowledge also helps parents to be more pathotic in following the treatment and treatment recommended by medical personnel.

They will be more likely to recognize early signs of recurrence, such as redness and itching of the skin, so they can immediately take appropriate precautions.⁷

Good knowledge helps parents to develop skills in caring for children with atopic dermatitis, including how to properly care for the child's skin, manage an appropriate diet, and provide the necessary emotional support for children suffering from this chronic disease.⁹ Thus, increasing the level of parental knowledge about atopic dermatitis directly impacts efforts to prevent, manage, and manage children's skin conditions. This makes a positive contribution to reducing the recurrence rate of atopic dermatitis in children and ultimately improving the quality of life of those suffering from this condition.

Older people who have a good level of knowledge about atopic dermatitis tend to have a deeper understanding of the disease. They may have sought information, read literature, or consulted with a health

professional to learn how to manage the condition of atopic dermatitis in their children.

With good knowledge, parents can recognize early symptoms, understand the triggers, and carry out the necessary care and treatment more effectively.

In addition to the level of knowledge there are several studies related to atopic dermatitis, namely related to personal hygiene, according to other studies a person who has good personal hygiene does not rule out the possibility of not experiencing atopic dermatitis, but there are other factors as the cause of atopic dermatitis, one of which is gender. It is very clear in the results of the study that respondents who have good personal hygiene but experience atopic dermatitis are more dominant are women.

This is supported by the theory that gender is a visible difference between men and women in terms of values and behavior. In terms of skin diseases, women are said to be more at risk of skin diseases compared to men. Compared to men, women's skin produces less oil to protect and maintain skin moisture, and women's skin is thinner than men's skin, making it more susceptible to dermatitis.¹⁰

In addition, the severity of atopic dermatitis disease is related to the quality of life of families with atopic dermatitis. Manifestations on the skin of atopic dermatitis patients will increase anxiety,

stress, and depression so that it will reduce the quality of life of children. In addition, families who have children with atopic dermatitis also have physical and psychological vulnerability. Many parents experience fatigue, stress, and frustration in caring for children with severe atopic dermatitis, slow clinical improvement, or high recurrence rates, and time- and cost-effective treatment."

Research discussing the relationship between the severity of atopic dermatitis in infants and children and family quality of life has revealed that families of children with atopic dermatitis often report lower quality of life than families of healthy children.¹²

The burden of caring for a child with atopic dermatitis can negatively affect the relationship between partners and cause social jealousy from the siblings of the child with atopic dermatitis because parents pay more attention to the child with atopic dermatitis, this has an impact on the relationship between the mother and the other child.¹³

Quality of life as mentioned above is one of the factors, researchers argue that a better quality of life will not experience a recurrence. The researcher concluded that the level of knowledge is the main factor for early detection and prevention and with the level of knowledge of caring for and treating children who experience recurrence of

atopic dermatitis and with proper handling and understanding in children can keep children away from stress and frustration, it should be noted that the level of knowledge is not only obtained from formal education, but by diligently reading and receiving and seeking information both from print and media. Electronics is the best way to increase knowledge, thus the researcher said that if every parent has a good level of knowledge, the recurrence of atopic dermatitis will be handled better and quickly.

CONCLUSION

Based on the results of this study, it can be concluded that:

1. In future studies, it is hoped that it will involve a larger and more representative sample to obtain a broader generalization of the relationship between parents' level of knowledge about atopic dermatitis and disease recurrence in children.
2. The proportion of recurrence of atopic dermatitis in children in this study was relatively low, at 7.5%. Meanwhile, the other 92.5% of children did not experience a recurrence of atopic dermatitis.
3. The results of the statistical test obtained $p\text{-value} = 0.000$ ($p < 0.05$). This shows that there is a significant relationship between the level of parental knowledge about atopic

dermatitis disease and the incidence of recurrence of atopic dermatitis in children at Hajj Hospital Medan.

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