

## **DESCRIPTION OF THE LEVEL OF KNOWLEDGE, ASTHMA PREVENTION AND CONTROL EFFORTS IN BAMBU AND BINANGA HEALTH CENTER MAMUJU DISTRICT**

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### **ABSTRACT**

*The prevalence is increasing every year and is currently recognized as one of the most costly and preventable diseases. Asthma is an inflammatory disease of the respiratory tract that results in narrowing of the airways leading to the airways wheezing, coughing, shortness of breath, and chest pain. The purpose of this study was to determine the level of knowledge, prevention of asthma recurrence, and asthma control at the Bambu and Binanga Health Center, Mamuju Regency. This study used a descriptive study conducted from March to June 2020 with a total of 68 respondents who met the inclusion and exclusion criteria. Collecting research data using a demographic data questionnaire, level of knowledge, prevention of asthma recurrence, and Asthma Control Test (ACT). The results showed the level of knowledge and efforts to prevent asthma recurrence in the Bamboo Health Center and Binanga Health Center groups was still in the low category, while at the control level it was in the partially controlled category and even there were still uncontrolled groups of respondents. This research is expected to be a reference source for health workers, especially nurses and doctors, in increasing knowledge, preventing asthma relapse, and controlling asthma in asthma patients.*

**Keywords:** *Asthma, Knowledge, Prevention, Asthma Control*

### **INTRODUCTION**

The prevalence of asthma is increasing every year and currently, asthma is known as a disease that requires a lot of costs and a disease with preventable death. Asthma is an inflammatory disease of the respiratory tract that can cause airway constriction which is characterized by wheezing, coughing, shortness of breath, and chest pain (Akbar Nur, Muhammad Amin, Muhammad Sajidin, Jumain 2019).

With 235 million asthma sufferers, the death rate due to asthma in Indonesia reaches 24,773 people or about 1.77% of the total population mortality (WHO, 2018; K. Akbar Nur, Muhammad Amin, Muhammad Sajidin, 2019). This data also puts Indonesia in 19th place in the world regarding deaths from asthma, there are around 180,000 deaths worldwide each year and asthma has become a serious disease in recent years (GINA, 2018). Based on data from the Hospital Information System (SIRS) in Indonesia, it was found that the death rate due to asthma was 63,584 people. Apart from the SIRS data, there is also data from the results of Riskesdas in 2013 which also states that asthma patients in Indonesia are mostly experienced by people with the lower middle class (4.7%) and the lowest (5.8%) (Badan Penelitian dan Pengembangan Kesehatan, 2013; Setiyarini, Muhlisin and Zulaicha, 2016).

Asthma relapses can be caused by several triggering factors such as environment and emotions. Asthma management is focused on reducing symptoms of relapse prevention and decreasing corticosteroid consumption. Asthma control can be carried out using various parameters. One simple instrument that already has validity is the Asthma Control Test (ACT) (Allen, 2009; Zaini, 2011). Asthma management aims to improve the quality of life better with controlled asthma. Uncontrolled asthma is caused by several factors including smoking, inappropriate use of corticosteroid drugs, genetics, inappropriate medication, lack of knowledge, and efforts to prevent asthma (Black and Hawks, 2014).

Knowledge about asthma is very important in efforts to prevent recurrence and control asthma. patients and families who understand asthma will be aware of the dangers faced when suffering from asthma so that patients will try to avoid asthma triggers (Ningrum, Muhlisin and Maliya, 2012).

Based on the background description, the researcher wanted to know the level of knowledge, efforts to prevent asthma recurrence, and control asthma at the Bambu and Binanga Health Center, Mamuju Regency.

## **RESEARCH DESIGN AND METHODOLOGY**

This study using a cross-sectional design which was conducted from March to June 2020 at the Bambu and Puskesmas Binanga Health Center Mamuju Regency with a total of 68 respondents who met the inclusion and exclusion criteria. As for the inclusion criteria of this study were men and women aged 17-60 years, good oral communication, patients diagnosed with asthma, and being able to sit and stand without the help of tools and other people. Exclusion criteria were patients with asthma in the attack, patients with a permanent physical impairment in the neck, chest, and upper extremities.

Data collection methods in this study used a demographic data questionnaire, level of knowledge, prevention of asthma relapse, and asthma control. This research was conducted after obtaining permission from Kesbangpol, Health Service, at the Bambu, and Health Center Binanga Mamuju Regency.

## **FINDINGS AND DISCUSSION**

Analysis of respondents with the distribution of sex, age, level of education, and occupation in the group of respondents at the Bambu and Binanga Health Center Mamuju Regency, shows the following data.

Table 1 Characteristics of Respondents at the Bambu and Binanga Mamuju Regency

| Characteristics    | Bambu Health Center<br>(n=34) |      | Binanga Health Center<br>(n=34) |      |
|--------------------|-------------------------------|------|---------------------------------|------|
|                    | Frequency                     | %    | Frequency                       | %    |
| <b>Gender</b>      |                               |      |                                 |      |
| Male               | 23                            | 67.6 | 19                              | 55.9 |
| Female             | 11                            | 32.4 | 15                              | 44.1 |
| Total              | 34                            | 100  | 34                              | 100  |
| <b>Age</b>         |                               |      |                                 |      |
| 26-35              | 2                             | 5.9  | 1                               | 2.9  |
| 36-45              | 12                            | 35.3 | 10                              | 29.4 |
| 46-55              | 10                            | 29.4 | 12                              | 35.3 |
| 56-65              | 4                             | 11.8 | 3                               | 8.8  |
| >65                | 6                             | 17.6 | 8                               | 23.5 |
| Total              | 34                            | 100  | 34                              | 100  |
| <b>Profession</b>  |                               |      |                                 |      |
| PNS                | 3                             | 8.8  | 4                               | 11.8 |
| Entrepreneur       | 9                             | 26.5 | 6                               | 17.6 |
| Farmer             | 11                            | 32.4 | 8                               | 23.5 |
| Others             | 11                            | 32.4 | 16                              | 47.1 |
| Total              | 34                            | 100  | 34                              | 100  |
| <b>Education</b>   |                               |      |                                 |      |
| No School          | 4                             | 11.8 | 6                               | 17.6 |
| Primary School     | 13                            | 38.2 | 9                               | 26.5 |
| Junior High School | 6                             | 17.6 | 5                               | 14.7 |
| Senior High School | 8                             | 23.5 | 10                              | 29.4 |
| Bachelor           | 3                             | 8.8  | 4                               | 11.8 |
| Total              | 34                            | 100  | 34                              | 100  |

Table 1. Shows the demographic data of respondents in the Bambu and Binanga Health Center respondent groups, the sex is dominated by men with the number of respondents in Bambu Health Center 23 (67.6%) and Binanga Health Center 19 respondents (55.9%), the majority of respondents age in the respondent group Bambu Health Center 36-45 (35.3) and for respondents from Binanga Health Center 46-55 years old (35.3%), for the type of work of the Bambu Health Center respondents the majority of farmers were 11 respondents (32.4) and others there were also 11 respondents (32.4%) while in the group The respondents at the Binanga Health Center were more in other types of work, namely 16 respondents (47.1%), the majority of the latest education was elementary school as many as 13 respondents (38.2%) in the Bambu Health Center respondent group and the Binanga Health Center respondent group had the majority of Senior High School as many as 10 respondents ( 29.4%).

This research shows that most of the respondents are male. The results of this study are in line with what was done by (Husna, 2014), which states that the male gender is more exposed to asthma, this can be because men tend to have a heavier workload, have

inappropriate lifestyles. Smoking can also lead to the recurrence of asthma. In this study, the majority of respondents' ages were 36-55 years, this is in line with research conducted by (Priyanto, Herry; Yunus, Faisal; H.Wiyono, 2011), states that the ages that suffer most from asthma are adults, old people, and adolescents.

Based on demographic data, the majority of respondents have jobs as farmers and others. Although the majority of respondents' occupations are farmers and other occupations, it is possible that respondents can increase their knowledge in efforts to prevent asthma relapse and control asthma. sources of knowledge can be obtained from the workplace, education, experience, and other sources of information. Current technological advances can make it easier for respondents to find references and information related to efforts to prevent asthma recurrence and control asthma so that the respondent's activities are not disturbed and remain productive in carrying out activities (Ningrum, Muhlisin and Maliya, 2012; Setiyarini, Muhlisin and Zulaicha, 2016).

This study shows that some respondents have an elementary school education and senior secondary education. Education is one of the factors that can affect a person's knowledge. The knowledge that a person has can influence the attitude of asthma patients in preventing recurrence, choosing and deciding what to do in maintaining their health (Notoatmodjo, 2010, 2012; Astuti and Darliana, 2018b).

Table 2. Knowledge Level of Respondents at the Bambu and Binanga Health Center Mamuju Regency

| Education | Bambu Center |      | Binanga Health Center |      |
|-----------|--------------|------|-----------------------|------|
|           | Frequency    | %    | Frequency             | %    |
| Well      | 3            | 8.8  | 4                     | 11.8 |
| Less      | 31           | 91.2 | 30                    | 88.2 |

Table 2. Shows that the knowledge level of asthma in the Bambu Health Center respondent group and the Binanga Health Center group had a low level of knowledge where there were 31 (91.2%) respondents in the Bambu Health Center respondent group and the Binanga Health Center group as many as 30 (88.2%) respondents.

This shows that the level of respondents' knowledge about asthma is still very low, so it can have an impact on asthma prevention and control efforts. this is in line with the results of research conducted by (Husna, 2014; Zainoel *et al.*, 2014), shows that patients who have a good level of knowledge will provide good and correct behavior towards further prevention of asthma. Knowledge of asthma prevention and control efforts is very important in the management and control of asthma recurrence (Notoatmodjo, 2013; Surahman and Pansori,

2017). Patients who understand asthma will avoid asthma trigger factors such as allergens, smoke, dust, strong odors, emotions, stress, weather, pollution, and strenuous activity.

Table 1.3 Efforts to Prevent Asthma Recurrence in the Respondent Group of Bambu and Binanga Health Center Mamuju Regency

| Asthma Recurrence Prevention Efforts | Bambu Health Center |      | Binanga Health Center |      |
|--------------------------------------|---------------------|------|-----------------------|------|
|                                      | Frequency           | %    | Frequency             | %    |
| Well                                 | 4                   | 11.8 | 11                    | 32.4 |
| Less                                 | 30                  | 88.2 | 23                    | 67.6 |

Table 3. Shows that in the community of Bambu Health Center respondents who had asthma prevention efforts there were 30 (88.2%) respondents who had asthma prevention efforts in the less category and the Binanga Health Center respondent group there were 33 (67.6%) respondents who also had prevention efforts in the less category.

This shows that the prevention of asthma in the two groups of respondents still has asthma prevention efforts which are still in the poor category. Prevention efforts are carried out following individual perceptions of threats, seriousness, and considerations of advantages and disadvantages. Respondents' perceptions can be influenced by age, gender, cultural background, social class, and level of knowledge. The level of education has a role in the ability of respondents to understand the prevention and management of short and long term asthma is making efforts to prevent asthma and control asthma (Wolagole, 2012). long-term asthma treatment is adjusted to the severity of asthma suffered by the patient (Astuti & Darliana, 2018). Primary prevention is more aimed at healthy people but has a high risk, while secondary prevention is an effort to worsen the clinical disease that has been suffered (Akanda *et al.*, 2013; Ardiansyah, Farizal and Irnamera, 2018).

Table 4. Level of Asthma Control in the Respondent Group of Bambu and Binanga Health Center Mamuju Regency

| Asthma Control       | Bambu Health Center |      | Binanga Health Center |      |
|----------------------|---------------------|------|-----------------------|------|
| Fully Controlled     | 14                  | 41.2 | 3                     | 8.8  |
| Partially Controlled | 18                  | 52.9 | 27                    | 79.4 |
| Not controlled       | 2                   | 5.9  | 3                     | 11.8 |

Table 4. Shows the level of asthma control in the Bambu Health Center respondent group, the majority of respondents' asthma control was in the controlled category as many as 18 (52.9%) respondents and there were 2 (5.9%) respondents whose asthma was not controlled while in the Binanga Health Center respondent group there were 27 (79.4 %) of

respondents who have asthma in the partially controlled asthma category and there are also 3 (11.8%) respondents who have uncontrolled asthma.

The increasing prevalence of uncontrolled asthma can be influenced by several factors including gender, age, genes, comorbid diseases, smoking, use of corticosteroid drugs, poor medication habits, and a lack of knowledge about the disease (Udayani and Amin, 2019).

The level of knowledge of asthma patients greatly affects the level of asthma control and prevention efforts, in addition to the level of knowledge, asthma control can also be influenced by factors of age, gender, education level, smoking, genetics, and treatment compliance. The better the level of knowledge possessed by asthma sufferers, both how to use drugs, the process of asthma, trigger factors, symptoms that arise, the better, and asthma will be controlled. (Atmoko *et al.*, 2011).

## CONCLUSION

This study shows that the level of knowledge, efforts to prevent asthma recurrence and asthma control in the respondent group of the Bambu Health Center and Binanga Health Center in Mamuju Regency still needs to be improved, where the results of the analysis show that the level of knowledge and efforts to prevent asthma recurrence of respondents shows that they are still in the low category, while at the level of Asthma control is still in the controlled category in part, even some respondents are in the uncontrolled category

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