

PUBLIC UNDERSTANDING OF THE BENEFITS AND USE OF BAY LEAF (*Syzygium Polyanthum*) AS AN ANTIDIABETIC IN BATUATAS DISTRICT

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ARTICLE INFORMATION

Received: 8 April 2026
Revised : 6 May 2026
Accepted: 12 June 2026
DOI:

KEYWORDS

Keywords: Bay Leaf, Antidiabetes, Herbal Plants , Community Understanding.

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A B S T R A C T

Background: Bay leaves are a medicinal plant that is commonly used in Indonesia, both for flavoring food as well as medicinal herbs. As an herbal plant, bay leaves are proven to provide various benefits for the body because they contain active compounds such as flavonoids, tannins, saponins, alkaloid compounds and essential oils that help control glucose. **Objective:** This study is intended to explore the knowledge of residents related to the use of bay leaves (*Syzygium Polyanthum*) as an antidiabetic in Batuatas District. **Methods:** The study used a quantitative descriptive method by distributing a questionnaire of 74 respondents, all of whom were DM sufferers . The research instrument in the form of a questionnaire consists of 10 questions. **Results:** From the findings of this study, it can be concluded that the community understands the benefits of bay leaves as a diabetes control in Batuatas District, which is in the category of good understanding level (4.05%), sufficient understanding level (14.86%) and low understanding level (81.08%). **Conclusion:** So that the average value of the level of community knowledge about the efficacy of bay leaves for diabetes in Batuatas District as a whole with the category of understanding level is less (31.62). These findings show that the low knowledge of people with diabetes mellitus about the efficacy and application of bay leaf (*Syzygium polyanthum*) is needed, so further education is needed on the use of herbal plants as a therapy to support diabetes.

INTRODUCTION

Diabetes mellitus is a metabolic disorder in the form of a clinical syndrome. A distinctive feature of the disease is an increase in blood glucose levels called hyperglycemia. The causative factors are impaired insulin secretion, impaired insulin sensitivity, or a combination of both. However, there are also other symptoms that can appear in certain diabetics (Sagita et al. 2020)

The non-drug approach includes an exercise program, physical activity, as well as dietary adjustments to lower blood sugar levels. Some plants such as soursop leaves, guava, and bay have glucose-lowering effects.(Azim 2022)

Bay leaves are widely used as kitchen spices and have been used for generations for diabetes treatment in Indonesia. Phytochemical studies prove the presence of essential oils, tannins, flavonoids, and terpenoids in bay leaves. Flavonoids Compounds in bay leaves are able to lower blood sugar levels and are useful for overcoming diabetes, cholesterol, high blood pressure, diarrhea, and gastritis. The phytochemical results show that bay leaves have essential oils, tannins, flavonoids, and terpenoids. Flavonoids are phenolic compounds that are thought to lower blood sugar. (Wahyudi et al. 2024)

METHOD

Types of Research

This type of research is descriptive with a quantitative method by taking data using questionnaires. Regarding public knowledge related to the efficacy and use of bay leaves for diabetes therapy in Busel.Kacamatan Batuatas Regency.

Research time

This study will be carried out in May-June 2025, in Kacamatan Batuatas.

Research place

This study was conducted in Busel Regency, Batuatas District, Southeast Sulawesi.

Populasi

The population in this study is the people of Batuatas District. A total of 289 adults have diabetes mellitus. Based on data sources at the Batuatas Health Center in 2025.

Sample

The population of this study includes all residents of Kacamatan Batuatas as many as 74 adults who have Diabetes mellitus, January-March 2025.

The formula used to count the sample uses the slovin formula (Amirin, 2011). As follows:

$$n = \frac{N}{1+N(e)^2}$$

Description: N= Number of Samples

n = population size

e = error rate 10 % (0,1)

$$\begin{aligned} n &= \frac{289}{1+289 \times (0,1)^2} \\ &= \frac{289}{1+2,89} \\ &= \frac{289}{3,89} \end{aligned}$$

= 74 Samples

Inclusion

Adults, Have knowledge and experience in the use of bay leaves, Willing to be respondents or surveys related to the understanding of bay leaves and people suffering from diabetes

Exclusion

All people of Batuatas sub-district, who are not willing to participate in this study such as not filling out questionnaires or conducting interviews, people who are not willing to be respondents and who do not have knowledge of bay leaves.

Research Instruments

Questionnaires are research instruments. According to Arikunto (2013). A questionnaire is a set of questions or statements that must be answered by participants.

Data Collection Techniques

The data collected using questionnaires were designed in line with the research objectives. The data collection method used directly in this study is in the form of primary data. Primary data is information obtained directly through questionnaires to the people of Batuatas District.

Data Analysis Techniques

Menurut Arikunto (2013), rumus berikut digunakan untuk menghitung proposal jawaban yang diperoleh dari kuesioner :

$$\text{Knowledge level (100 \% = } \frac{\text{average number}}{\text{ideal skor}}) \times$$

For this study, the score was given based on the level of answers obtained by the respondents, namely:

True/known responses are given a score of 1, incorrect/unknown responses are given a score of 0. Based on the level of value, Arikunto (2010) divides the level of individual knowledge into three categories, namely as follows: If the score is in the range of 76-100%, then the level of knowledge is in the good category, if the score is between 61-75%, then the knowledge is in the sufficient category and if the value is less than 61%, then the level of knowledge is included in the poor category.

RESULTS & DISCUSSION

Knowledge is the result of the process of understanding, knowing, or realizing something through experience, education, observation, or research. Knowledge includes information, facts, principles, and skills that individuals or groups gain from the process of learning or interaction with the environment.

The distribution of participants' knowledge levels regarding the use of bay leaves for antidiabetes is shown in the following table4.2:

Table 4.2 Frequency distribution of respondents' knowledge of the understanding of the use of bay leaves as an antidiabetic

KATEGORI	SKOR	PERSENTASE%
Baik	3	4,05
Cukup	11	14,86
Kurang	60	81,08
Total	74	100

Primary Data Source of Research 2025

From table 4.2 above, the frequency of public knowledge about the efficacy of bay leaves as a diabetes medicine. The good category was 3 respondents with a percentage of 4.05%, the sufficient category was 11 respondents with a percentage of 14.86% and the poor category was 60 respondents with a percentage of 81.08%.

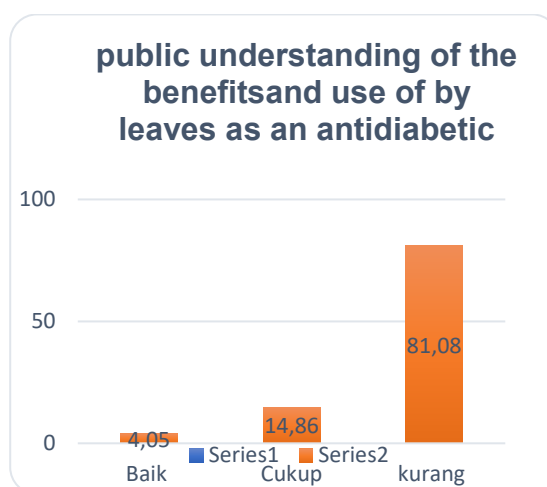


Figure 4.1 Graph of the level of public knowledge about the use of bay leaves for the treatment of diabetes. Based on the graph of figure 4.1, it can be explained that the category of good understanding amounted to 3 respondents 4.05%, while the category of sufficient understanding amounted to 11 respondents 14.86% and the category of poor understanding amounted to 60 respondents 81.08%.

Discussion

This study is intended to examine the degree of understanding of the residents of Batuatas District regarding the efficacy and use of bay leaf (*Syzygium polyanthum*) as an anti-diabetes. Based on the results of the distribution of questionnaires to 74 respondents, the data was obtained as follows:

Based on the results of the questionnaire regarding the respondents' knowledge about the use of bay leaves as an antidiabetic, data was obtained that the level of knowledge of the respondents still varied. In the first statement, the majority of respondents (48 people) (74%) answered that they did not agree that bay leaves can be used to help control glucose levels in the blood of diabetics, as many as 26 people answered yes. This fact indicates that the majority of respondents are not convinced of the benefits of bay leaves as a control of blood sugar levels.

Referring to the findings of this study, 47 respondents (74%) answered that the regular use of bay leaves can be part of the percentage of natural diabetes treatment, while 27 respondents (74%) answered yes. This data reinforces the findings in the first statement that confidence in the use of bay leaves for diabetes therapy is still low.

Furthermore, in the third statement, only 14 respondents (74%) answered yes that bay leaves contain compounds that can lower insulin, while 60 respondents (74%) gave negative answers. This fact indicates that the majority of respondents are not aware of the bioactive content in bay leaves that have the potential to affect insulin levels.

Most respondents also argued that consuming large amounts of bay leaves can have side effects. This is evident from the answer to the fourth statement, where 54 respondents (74%)

answered that they did not agree that bay leaf has no side effects, while only 14 respondents (74%) answered yes. This suggests that respondents are more cautious about overusing herbs.

Based on this study, 59 respondents (74%) answered that they did not agree that the benefits of bay leaves as an antidiabetes have been scientifically proven, while only 15 respondents (74%) answered yes. This indicates that most respondents have not obtained valid scientific information regarding bay leaves as an antidiabetic.

Based on the results of this study, 55 respondents answered that they did not agree that bay leaves function as an alternative medicine for diabetes treatment, while 19 people agreed. This shows that there are doubts among respondents in making bay leaves as an alternative treatment.

A total of 50 respondents answered in disagreement with the seventh statement that bay leaves can be processed into tea or decoction for diabetes medicine, while 24 respondents answered yes. This shows that information about the variety of processing bay leaves as a medicine is not widely known.

Based on the results of this study, the majority of respondents (63 people) agreed that bay leaves are only used for cooking and have no health benefits, while only 11 respondents expressed disagreement. This fact indicates that the majority of respondents only know bay leaves as a kitchen spice, not as a medicinal plant.

Based on the results of this study, most respondents (52 people) agreed that the use of bay leaves should not be excessive and done according to recommendations, while 22 people answered yes. This shows that respondents are aware of the importance of dosage appropriate consumption of herbs.

Finally, in the tenth statement, as many as 71 respondents answered that bay leaf can replace all diabetes medications and is more effective than medical drugs, while only 3 people answered yes. This fact indicates that the majority of respondents are aware that bay leaf cannot replace doctor-prescribed medical treatment.

The total score is 233, this score is accumulated from each participant's response to each question item in the questionnaire. The entire category of public understanding of the efficacy and use of bay leaf (*Syzygium polyanthum*) as an antidiabetes understanding was good for 3 respondents with a percentage of 4.05% of the acquisition score obtained from 74 respondents, which was obtained by respondents divided by the maximum score, namely 10 of the number of samples set multiplied by 100% and the results obtained were 4.05%, then in the category of public understanding there were only 11 respondents with a percentage of 14.86% of the acquisition score obtained in the 74 respondents were divided by a maximum score of 10 from the number of samples set then multiplied by 100% of the results obtained 14.86% and in the category of community understanding less than 60 respondents with a percentage of 81.08% of the score obtained from 74 respondents, divided by a maximum score of 10 from the number of samples set multiplied by 100%. So the comprehension category is less than 3 with a percentage of 4.05%.

Based on the results of the research on residents' knowledge related to the efficacy and use of bay leaves as an antidiabetes in Batuatas sub-district in the category of understanding 3 respondents with a percentage of 4.05% of the score obtained from 74 respondents, From the results of this discussion, it can be concluded that the level of understanding of the people of Batuata District regarding the benefits of bay leaves as an antidiabetes is still low. Most of the respondents were unaware of the potential active ingredients in bay leaves, and did not believe in the effectiveness of its use as an alternative therapy. However, some respondents have realized that the use of herbal plants must still be done wisely, not excessively, and not to replace medical therapy prescribed by professionals. These findings are consistent with previous studies conducted by (Fata et al. 2022). It shows that public understanding of diabetes mellitus is in the good category in 26 respondents (84%) and knowledge about the use of bay leaves as an antidiabetes is in the good category in 21 respondents (68%). Regarding the efficacy and utilization of bay leaves as an antidiabetic, consistent with the study.

Based on the results of this study, the hypothesis H0: The community does not have a good understanding of the efficacy and use of bay leaves as an antidiabetic, while H1: The community has a good understanding of the benefits and use of bay leaves as an antidiabetic, is not in line with this study.

Some people in Batuatas still lack knowledge about the efficacy and use of bay leaves as an antidiabetes due to limited access to health information and low education about medicinal plants. In addition, bay leaves are better known as a kitchen spice, so their function as a natural remedy is

often overlooked. The lack of counseling from health workers and the lack of local research also cause information about the efficacy of bay leaves to be not widely known. As a result, people tend to rely only on medical treatments or herbal plants that have been known for generations.

COVER

Conclusion

Based on the results based on the above description, it can be concluded that the study on public understanding related to the efficacy and use of bay leaf (*Syzygium polyanthum*) as an antidiabetes in Batuatas District is in the category of good understanding (4.05%), medium understanding (14.86%) and low understanding (81.08%). Thus, the average public understanding of the efficacy and use of bay leaf (*Syzygium polyanthum*) as an antidiabetic in Batuatas District as a whole with the category of understanding level is less (31.62).

THANK YOU

With full gratitude, I praise God Almighty for His abundant grace and grace so that this research entitled "Public Understanding of the Benefits and Use of Bay Leaves as Antidiabetes" can be completed properly.

I respectfully express my deep appreciation to:

Academic advisors who have provided direction, advice, and encouragement throughout this research. Respondents and the community who have been willing to provide their data and opinions, so that the data needed in this study can be collected properly. The relevant institutions/institutions that have provided approval and assistance in the implementation of this research. Family, friends, and comrades for the prayers, moral support, and encouragement that continue to be given throughout the research process.

It is hoped that this research can provide benefits and expand knowledge for the public about the potential of bay leaves as one of the natural alternatives in diabetes management. I acknowledge that this research is not perfect, so I am willing to accept criticism and constructive suggestions for future improvements.

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