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**Utilization Of Family Medicinal Plants (Toga) In Health Improvement Efforts**Syaiful Bachri^{1*}, Rahmat Pannyiwi², Sara Surya³¹Nursing Study Program, Gunung Sari Health College, Makassar, Indonesia²Faculty of Military Medicine, Republic of Indonesia Defense University, Indonesia³Pharmacy Study Program, Universitas Dharma Andalas, Indonesia*Correspondent Author: Syaiful Bachri, Email: handa.yani818108@gmail.com**ABSTRACT**

Family Medicinal Plants (TOGA) is a form of natural resource utilization that plays a role in public health promotion and prevention efforts. Utilization of TOGA can increase family independence in maintaining health and reduce dependence on synthetic drugs for minor complaints. This study aims to analyze the level of TOGA utilization and its impact on improving family health. The study used a descriptive analytical design with a cross-sectional approach. The study sample consisted of 60 heads of families who have TOGA plants in region X. Data were collected through questionnaires and direct observation. The results showed that 75% of respondents utilized TOGA for minor complaints such as coughs, fevers, and digestive disorders. Utilization of TOGA is associated with increased healthy living behavior and decreased use of chemical drugs for minor complaints ($p < 0.05$). It is concluded that TOGA plays an important role in supporting efforts to improve family health.

Keywords: Toga, Family Medicinal Plants, Public Health, Preventive Promotion



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**1. Introduction**

Public health is the result of the interaction of various factors, including individual and family behaviors in maintaining their own health. In the context of national health development, promotive and preventive approaches are a top priority for reducing morbidity and improving the quality of life. One implementation of this approach is the use of Family Medicinal Plants (TOGA).

TOGA (traditional herbal medicine) are medicinal plants cultivated in home gardens and used for simple treatments and health maintenance. The TOGA concept aligns with the principle of community empowerment, where families play an active role in maintaining health through the use of easily accessible, affordable, and relatively safe local resources.

Globally, the use of traditional medicine remains an important part of the healthcare system. The World Health Organization (WHO) reports that more than 80% of the population in some developing countries still relies on traditional medicine for primary healthcare needs. In Indonesia, the use of medicinal plants has become part of the culture and local wisdom passed down through generations. Plants such as ginger, turmeric, Javanese ginger, betel leaf, bitter leaf, and aloe vera are known to have pharmacological properties, including anti-inflammatory, antibacterial, antioxidant, and immunomodulatory properties.

From a public health perspective, the use of TOGA has several strategic advantages. First, TOGA supports families' independence in managing minor ailments such as coughs, fevers, mild diarrhea, and digestive disorders without having to rely solely on health facilities. Second, TOGA can reduce the burden of household healthcare costs, especially for groups with limited access to medical services. Third, TOGA contributes to the preservation of biodiversity and the environment.

The advancement of modernization and the increasing use of synthetic medicines have led to a decline in the use of traditional herbal medicines in some regions. Furthermore, a lack of public knowledge regarding the processing, dosage, and indications for medicinal plants can limit their effectiveness. Another challenge is the lack of integration between traditional herbal medicine use and formal health programs in healthcare facilities.

In a promotive and preventive context, the use of traditional medicinal plants (TOGA) serves not only as a simple curative therapy but also as a means of health education and fostering healthy lifestyles. Planting and caring for TOGA can raise family awareness of the importance of a healthy lifestyle, consuming natural ingredients, and maintaining a clean and productive environment.

Based on this background, it is important to examine the extent to which the use of Family Medicinal Plants (TOGA) contributes to improving family health. This study aims





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to analyze the level of TOGA utilization and its relationship to efforts to improve family health as part of a community empowerment strategy in the health sector.

2. Research Methods

This study used a descriptive analytical design with a cross-sectional approach. The study was conducted in the working area of Community Health Center X in January-March 2025.

a. Population and Sample

The population consisted of all families with medicinal plants. A sample of 60 respondents was selected using purposive sampling.

b. Inclusion Criteria

- 1) Have at least 3 types of TOGA plants
- 2) Willing to be a respondent

c. Research Variables

- Independent variable: Utilization of TOGA
- Dependent variable: Improvement of family health

d. Instrument

- TOGA utilization level questionnaire
- Plant type observation sheet
- Notes on the frequency of use of chemical drugs

e. Data analysis

Data were analyzed descriptively and using the chi-square test to see the relationship between TOGA utilization and health improvement.

3. Research Results And Discussion

a. Research Result

The research involved 60 heads of families who had at least 3 types of TOGA plants in their yards.

1) Respondent Characteristics

Characteristics	n	%
Lower education (elementary–middle school)	22	36.7
Secondary education (SMA)	28	46.6
Higher education	10	16.7
Permanent work	38	63.3
Housewife	22	36.7

Most respondents had secondary education, which could potentially influence the level of understanding of the benefits of TOGA.

2) Ownership and Types of TOGA Plants





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Types of Plants	% Ownership
Ginger	85%
Turmeric	78%
Curcuma	65%
Betel leaf	60%
Aloe vera	55%
Sambiloto	40%

Ginger and turmeric are the most widely grown plants because they are easy to cultivate and are often used for minor ailments such as coughs and colds.

3) TOGA Utilization Level

Category	n	%
Active (≥ 2 times/month)	45	75
Rarely (< 2 times/month)	10	17
Never	5	8

The majority of families actively utilize TOGA for the treatment of minor complaints.

4) The Relationship between TOGA Utilization and Family Health Indicators

Observed health indicators:

- Frequency of use of chemical drugs for minor complaints
- Visits to health facilities for minor complaints
- Perception of increased endurance

Utilization of TOGA	Low Use of Chemical Drugs	High Use of Chemical Drugs
Active	38	7
Not active	6	9

The chi-square test showed a p value = 0.008 (< 0.05), which means there is a significant relationship between the use of TOGA and a decrease in the use of chemical drugs for minor complaints.

b. Discussion

The research results show that the majority of families actively utilize traditional herbal remedies (TOGA) as an alternative treatment for minor ailments. The high rate





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of TOGA utilization (75%) indicates that public awareness of the use of medicinal plants remains quite good, especially in the study area.

The dominance of plants like ginger and turmeric suggests that people tend to prefer plants with broad benefits and ease of preparation. Both plants contain active compounds like gingerol and curcumin, which act as anti-inflammatory and antioxidant agents. This supports their empirical use in treating coughs, colds, and digestive disorders.

The significant relationship between TOGA utilization and decreased use of chemical drugs indicates that TOGA contributes to increasing family independence in maintaining health. Families that actively utilize TOGA tend to consume synthetic drugs less frequently for minor ailments. This results in reduced household healthcare expenditures and a lower risk of side effects from chemical drugs.

From the perspective of health behavior theory, the use of TOGA can be linked to the Health model. Belief Model (HBM). Individuals who perceive high benefits from traditional medicine and feel capable of using it correctly tend to be more active in utilizing it. Education and knowledge are important factors in increasing people's confidence in using medicinal plants.

In addition to its curative aspects, TOGA also plays a role in promotive and preventive aspects. Planting and caring for TOGA encourages family interaction with the environment, raises awareness of healthy lifestyles, and strengthens food security and household-based health.

The use of traditional herbal medicines still faces challenges, such as limited knowledge regarding proper dosage and processing methods. Inappropriate use can reduce effectiveness and even potentially cause side effects.

The results of this study confirm that the use of TOGA is not merely a traditional practice but plays a strategic role in community-based health systems. Integrating TOGA programs with primary health care services could be a solution for sustainably improving public health.

➤ **Practical Implications**

- 1) Strengthening education about the benefits and methods of processing TOGA through Community Health Centers.
- 2) Development of the "TOGA Village" program based on community empowerment.
- 3) Integration of TOGA in family health promotion.
- 4) Development of pharmacological research to support scientific evidence of local medicinal plants.

4. Conclusion And Suggestions

a. Conclusion





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Based on the research results, it can be concluded that the use of Family Medicinal Plants (TOGA) plays a significant role in supporting improved family health. The majority of respondents actively use TOGA to treat minor ailments such as coughs, fevers, and digestive disorders. Plants such as ginger and turmeric are the most widely used due to their ease of cultivation and wide-ranging benefits.

There was a significant correlation between the level of TOGA utilization and a decrease in the use of chemical drugs for minor complaints ($p < 0.05$). Families that actively utilize TOGA showed a lower tendency to consume synthetic drugs and were more independent in maintaining their health.

In addition to serving as a simple alternative treatment, TOGA also has promotive and preventive value by increasing health awareness, strengthening healthy lifestyles, and empowering families to utilize local resources. Thus, TOGA plays a strategic role in supporting community-based health systems and sustainably improving public health.

b. Suggestion

- 1) For Community Health Centers and Health Workers
 - Increase education regarding the benefits, processing methods, and correct dosage of TOGA.
 - Integrating TOGA programs into health promotion and community outreach activities.
 - Providing family assistance in developing TOGA gardens.
- 2) For Village/Sub-district Governments
 - Developing the “TOGA Village” program as part of community empowerment.
 - Supporting the provision of medicinal plant seeds and cultivation training.
 - Integrating TOGA into food security and environmental health programs.
- 3) For the Community
 - Use TOGA wisely and based on correct knowledge.
 - Make TOGA a part of a healthy family lifestyle.
 - Continue to consult a health facility if the complaint does not improve.
- 4) For Further Researchers
 - Conducting experimental research to test the clinical effectiveness of each medicinal plant.
 - Examining the factors that influence the sustainability of TOGA utilization.
 - Examining the potential for TOGA integration into the formal health care system.

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