



## Application of Clean and Healthy Lifestyle in Household Management of Coastal Communities

### *Penerapan Perilaku Hidup Bersih dan Sehat dalam Tataan Rumah Tangga pada Masyarakat Wilayah Pesisir*

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#### ABSTRACT

The coastal area needs special attention regarding the health management for the people living there. Wowo Tamboli Village, Kolaka Regency, Southeast Sulawesi is one of the coastal areas that need attention in terms of health, especially for people who live in unhealthy houses. This study aimed to investigate the application of clean and healthy lifestyle in household management of coastal community. This type of research was descriptive with a total sampling technique of 354 households. The research instrument used a questionnaire consists of respondents characteristic and ten indicators of clean and healthy lifestyle. The results showed that the community had properly implemented clean and health lifestyle on indicators of exclusive breastfeeding, using clean water, washing hands with clean water and soap, eradicating house larvae, eating fruits and vegetables every day, and doing physical activity every day. However, it was still found that the head of the family has not fully implemented a clean and healthy lifestyle because the birth process was still assisted by traditional birth attendants (3.40%), who did not weigh the infant and toddler because of distance from health services (2.50%) and there were community members who still smoke in the house (25.40%). The application of a clean and healthy lifestyle in households is good in 7 indicators. However, 3 indicators are still lack of application.

#### ABSTRAK

*Wilayah pesisir perlu mendapatkan perhatian khusus dalam pengelolaan kesehatan masyarakat yang bermukim di wilayah tersebut. Desa Wowo Tamboli Kabupaten Kolaka Sulawesi Tenggara merupakan salah satu wilayah pesisir yang perlu mendapatkan perhatian dari segi kesehatan terutama bagi masyarakat yang tinggal di rumah yang tidak sehat. Penelitian ini bertujuan untuk mengetahui penerapan perilaku hidup bersih dan sehat dalam tataan rumah tangga pada masyarakat wilayah pesisir. Jenis penelitian ini adalah deskriptif dengan teknik total sampling sebanyak 354 rumah tangga. Instrumen penelitian menggunakan kuesioner yang berisi tentang karakteristik responden dan sepuluh indikator perilaku hidup bersih dan sehat. Hasil penelitian menunjukkan bahwa masyarakat telah menerapkan perilaku hidup bersih dan sehat dengan baik pada indikator memberikan ASI eksklusif, penggunaan air bersih, mencuci tangan dengan air bersih dan sabun, pemberantasan jentik rumah, makan buah dan sayur setiap hari, dan melakukan aktivitas fisik setiap hari. Namun, masih ditemukan kepala keluarga yang belum sepenuhnya menerapkan perilaku hidup bersih dan sehat karena proses persalinan masih ditolong oleh dukun beranak (3,40%), tidak menimbang bayi dan balita karena jarak yang jauh dari pelayanan kesehatan (2,50%), dan masih terdapat masyarakat yang masih merokok dalam rumah (25,40%). Penerapan perilaku hidup bersih dan sehat dalam rumah tangga sudah baik pada tujuh indikator. Namun, tiga indikator masih kurang penerapannya.*

## INTRODUCTION

Coastal areas are included in areas that are prone to health because they are place for mixing the effects of water, air, and land. Various health problems that arise include environmental health, maternal health, and family planning as well as infant and toddler health. Environmental health includes waste, excreta disposal, housing, wastewater, and garbage. Infant and toddler health includes immunization and nutrition.<sup>1</sup>

Clean and healthy lifestyle is a set of behaviors that are practiced consciously based on the learning outcomes of a person, group, or community to be able to independently play an active role in realizing public health.<sup>2</sup> Clean and healthy lifestyle in household arrangements is an effort to empower members in the household to know, have will and ability to practice clean and healthy lifestyles and play an active role in the health movement.<sup>3</sup>

*Riset Kesehatan Dasar (Riskesdas)* data in 2018 noted that 10.7% of Indonesian population did not consume fruit or vegetable in one week. Proportion of Defecation behaviour to use the latrine is 88.2%, proportion of the population who has the correct behaviour in washing their hands using soap with flowing water is 49.8%, proportion of the population who still smokes in the building or room is 80.6% and proportion of the population with less activities is 33.5%. The population of Southeast Sulawesi which does not consume fruit or vegetables in one week is 11.1%, the population who defecates in the toilet is 87.3%, the population with correct behaviour in washing their hands is 42.3%, the population who smokes in the building or room is 92.1% and residents who do less physical activities is 35.5%.<sup>4</sup>

Many factors are associated with clean and healthy lifestyle in household settings. A study explains that the factors of knowledge, attitudes, habits, roles of health workers and informal leaders are related to clean and healthy lifestyle and the most dominant is the attitude factor.<sup>5</sup> Environmental diseases due to lack of clean and healthy lifestyles implementation in the community include malaria, diarrhea, tuberculosis, skin diseases, dengue fever, nutritional disorders, Typhoid fever, ARI, and other digestive disorders. The three most common environmental diseases are diarrhea, tuberculosis, and malaria.<sup>6</sup> Another

study stated that mothers with poor hygiene and healthy lifestyles tend to cause more diarrhea in toddlers.<sup>7</sup> Previous research assessed the implementation of clean and healthy lifestyle in general without analyzing specifically the implementation of clean and healthy lifestyle on 10 indicators.

The COVID-19 pandemic that has occurred since 2020 requires people to live clean and healthy living behaviours to prevent the spread of COVID-19. Research conducted stated that there is a relationship between clean and healthy living habits to prevent the transmission of Covid-19 in RW.03 Ciganjur Village.<sup>8</sup> Another study states that one of the Covid-19 prevention efforts carried out by the people of DKI Jakarta Province is a clean and healthy living culture through hand-washing activities, consuming nutritious food, regular exercise, adequate rest, not smoking, avoiding cigarettes, and maintaining environmental cleaning.<sup>9</sup>

Wowa Tamboli Village is one of the coastal areas in Kolaka Regency which is inhabited by 354 families. The results of recording from the Tosiba Health Center in 2019 obtained information that from 287 houses there were 153 which categorized as healthy homes and 95 houses that were categorized as unhealthy. Upper respiratory tract infections, influenza, typhoid fever, and dermatitis occupy the top 10 diseases in Wowa Tamboli village, Kolaka Regency, Southeast Sulawesi and one of the predisposing factors is the lack of PHBS implementation in the community. This condition makes researchers interested to analyzes about Application of Clean and Healthy Life Behaviour in Household Arrangements towards Communities in Coastal Areas. This research is expected to be able to find indicators of achieving clean and healthy lifestyles that have not been implemented by the community in Wowa Tamboli Kolaka Regency, Southeast Sulawesi, and to find the causal factors.

## MATERIAL AND METHOD

This research is a quantitative descriptive study with population of 354 families who live in the village of Wowa Tamboli, Kolaka Regency, Southeast Sulawesi which is a coastal area. The sampling technique used was total sampling and the respondents were mothers or fathers who were the head of the household around 354 people.<sup>10</sup> The variable in this study is the application

of clean and healthy lifestyle in the household which will be assessed based on 10 indicators, namely assisted delivery by health workers, exclusive breastfeeding, weighing infants and toddlers, using clean water, washing hands with clean water and soap, using healthy latrines, eradicating larvae at home, eating fruit and vegetables every day, doing physical activity every day, and do not smoke in the house.<sup>11</sup>

This research was conducted from June to August 2021. Data collection is done primary and secondary. Primary data was obtained by observing or visiting the respondent's house who has home address in Wowa Tamboli Village, as well as conducting direct interviews with respondents based on a questionnaire list of research variables that had been compiled based on the research objectives. Secondary data was obtained from the medical records of Tosiba Health Center regarding the number of heads of families, data on healthy houses, and diseases that often occur in coastal areas. Data analysis was carried out descriptively to describe application distribution of 10 PHBS indicators in household arrangements in Wowa Tamboli Village using computer programs. This research has obtained *Ethical Clearance* No. 72/KEPK-IAKMI/VI/2021 from Ethic Health Research Commission (KEPK) Regional Committee IAKMI Southeast Sulawesi on Juni 3, 2021.

## RESULTS

This section will explain the results of research that has been carried out regarding the characteristics of respondent and the application of clean and healthy lifestyle based on 10 indicators. Table 1 shows the characteristics of the heads of families who are respondents of the study. The results of data collection showed that the male head of family was dominated by 307 people (86.70%), the most family heads with the last education background were elementary school Around 188 people (53.10%), most of family heads worked as farmers with a total of 168 people (47.70%) and the average income of head of the family < 1,000,000 around 212 people (59.90 %).

**Table 1. Characteristics of Respondents**

Characteristics	n=354	%
<b>Gender</b>		
Male	307	86.70
Female	47	13.30
<b>Education</b>		
College	13	3.60
Senior High School	71	20.10
Junior High School	59	16.70
Primary School	188	53.10
No School	23	6.50
<b>Profession</b>		
Laborer	3	0.80
Honoror	4	1.10
Housewife	33	9.30
Employee	6	1.70
Village Head	1	0.30
Fisherman	60	16.90
Trader	5	1.40
Pensionary	2	0.60
Farmer	168	47.70
Government Employees	5	1.40
Carpenter	5	1.40
Entrepreneur	62	17.50
<b>Income</b>		
< 1.000.000	212	59.90
1.000.000 – 2.000.000	126	35.60
> 2.000.000 – 3.000.000	12	3.40
> 3.000.000	4	1.10

Source: Primary Data, 2021

Tabel 2 shows about Application of Clean and Healthy Lifestyle. There were 241 families (68.10%) who gave birth assisted by health workers and 12 people who don't (3.40%). There were 251 families (70.90%) who gave exclusive breastfeeding to infants and toddlers and 2 people who don't (0.60%). There were 244 families (68.93%) who weighed infants and toddlers, while 9 people (2.54 %) don't weighed infants and toddlers. All families in Wowa Tamboli village use clean water (100%). All families practice hand-washing technique using clean water and soap (100%). There were 321 (90.70%) healthy latrines and 33 (9.30%) families who did not have a latrine and used the river behind their house as a place to defecate. All families did house larvae eradication by actively cleaning water reservoirs 2 times a week. There were 351 families (99.10%) who consumed fruits and vegetables every day and there were 3 families

(0.90%) who did' not consume fruits and vegetables every day. There were 352 (99.40%) heads of families who did actively physical activity every day and there were 2 families (0.60%) who did not do physical activity. Families with members who did not smoke in the house around 264 people (74.60%) and there were 90 families (25.40%) who still smoke in the house.

**Table 2. Application of Clean and Healthy Lifestyle in Household Arrangements in Coastal Area Communities in Wowa Tamboli Village**

<b>Indicator of Clean and Healthy Lifestyle</b>	<b>n=354</b>	<b>%</b>
<b>Childbirth Assisted by Health Worker</b>		
Yes	241	68.10
No	12	3.40
<b>Exclusive Breastfeeding</b>		
Yes	251	70.90
No	2	0.60
Don't have Babies and Toddlers	101	28.50
<b>Weighing Infants and Toddlers</b>		
Yes	244	68.93
No	9	2.54
Don't have Babies and Toddlers	101	28.53
<b>Use Clean Water</b>		
Yes	354	100
No	0	0
<b>Wash Hands Using Clean Water and Soap</b>		
Yes	354	100
No	0	0
<b>Use a Healthy Latrine</b>		
Yes	321	90.70
No	33	9.30
<b>Get Rid of Mosquitoes</b>		
Yes	354	100
No	0	0
<b>Eat Fruit and Vegetables Every Day</b>		
Yes	351	99.10
No	3	0.90
<b>Do Physical Activity Every Day</b>		
Yes	352	99.40
No	2	0.60
<b>No Smoking in the House</b>		
Yes	90	25.40
No	264	74.60

Source: Primary Data, 2021

## DISCUSSION

### Childbirth Assisted by Health Worker

The results of this study found 12 families whose births were not assisted by health workers. Since 2015, the emphasis on safe delivery has been assisted by health workers in health care facilities. The health workers in question are midwifery specialists, general practitioners and midwives.<sup>12</sup> Deliveries assisted by health workers using safe, clean, and sterile equipment so that infections and other health hazards can be prevented.<sup>13</sup> Total of 12 families whose births are still assisted by traditional birth attendants. The reason why they are not helped by health workers is because of the long distance to the health service center and the absence of transportation to reach health services. The results of this study are in line with the study which stated that 10.9% of respondents chose to give birth assisted by a traditional birth attendant which was influenced by the respondent's participation status in the National Health Insurance program.<sup>14</sup>

### Exclusive Breastfeeding

Most mothers have given exclusive breastfeeding to their children and only 2 mothers have not given exclusive breastfeeding. Exclusive breastfeeding is breastfeeding without other additional food and beverage for infants aged 0 to 6 months. Breast milk contains important anti-infective substances that help babies to fight infection and disease. The most important benefit of breast milk can be seen from its ability to build the body's defense system against infectious diseases, especially digestion.<sup>15</sup> The reason why mothers do not give exclusive breastfeeding is the lack of milk production. The results of this study indicate that the majority of mothers who have infants and toddlers have exclusively breastfed their children. One of factors that can influence exclusive breastfeeding is mother's knowledge. A study explains that knowledge is the most dominant factor associated with exclusive breastfeeding. Mothers who have good knowledge are 13 times more likely to give exclusive breastfeeding compared to mothers who have less knowledge.<sup>16</sup>

### **Weighing Infants and Toddlers**

Most of mothers do the weighing to their babies and toddlers every month but still found 9 mothers who do not weigh their children in integrated health center. Weighing infants and toddlers regularly aims to monitor the growth of children and ensure their nutritional status is good. This is very important because the prevalence of stunting in Indonesia is still high in 2017.<sup>17</sup> The basic reasons given by the family were the distance from their house to the health service and unavailability of transportation that they could use to get health services. This is not in line with the study which explains that the accessible factor has no effect on the implementation of PHBS in household arrangements in the working area of Cot Ie Jue Health Center, Bireuen Regency ( $p=0.050$ ). Accessibility is community's affordability to health care places. The easier to reach health services, the better the family will implement clean and healthy lifestyles.<sup>18</sup> The researcher assumes that long distances cause long travel times and high costs to be a consideration for residents to live in remote villages to apply clean and healthy lifestyles specifically on indicators of weighing infants and toddlers.

### **Use Clean Water**

All families in Wowa Tamboli village use clean water. The source of clean water for the community in Wowa Tamboli village comes from wells and water from local drinking water companies. Water is needed by humans for washing, cooking, bathing, and other purposes. Water sources can be obtained from wells, plumbing (regional drinking water companies), purchased from water depots or rivers. Water intended for human consumption must come from clean and safe sources. The category of clean and safe water is free from contamination by germs, free from hazardous and toxic chemical substances, tasteless and odourless and can be used to find domestic and household needs.<sup>19</sup> The results of this study are in line with studies that state the entire population (100%) uses clean water sourced from wells for household purposes such as washing, drinking, cooking, cleaning household furniture, and others.<sup>6</sup>

### **Wash Hand Using Clean Water and Soap**

All families practice hand-washing technique using clean water and soap. This explains that public awareness of the importance of washing

hands with clean water can support clean and healthy lifestyle. Washing hands is an indicator of clean and healthy lifestyle such as fingers which can be a pathway for pathogens, bacteria, and viruses to enter. Washing hands with soap had been shown to reduce diarrhea and acute respiratory infections.<sup>20</sup>

During the Covid-19 pandemic, the Ministry of Health recommended preventing Covid-19 by implementing health protocols, one of them was to wash hands regularly after touching objects.<sup>14</sup> Various efforts have been made to increase public knowledge about the importance of washing hands to avoid the spread of Covid-19 and other diseases. The community in Wowa Tamboli Village obtained information about proper hand-washing through direct counselling from health workers, socialization banners for preventing the spread of Covid-19, electronic media, and print media. A study explains that there is a strong relationship between knowledge and attitudes with hand-washing in the Pegirian Village community.<sup>21</sup>

### **Use a Healthy Latrine**

In this research, it is still that found 33 families did not have a latrine and used the river behind their house as a place to defecate. Healthy latrines are one of the basic sanitation facilities that play an important role in daily life. The availability of healthy latrines can improve the health status of community and prevent the spread of disease. A research result explains that there is a relationship between knowledge about PHBS and the use of healthy latrines in the working area of Mekar Wangi Health Center.<sup>22</sup> The researcher's assumption that the people of Wowa Tamboli who do not have healthy latrines are also influenced by economic factors. The people of Wowa Tamboli who do not have latrines have a low income of < 1,000,000 per month so that their families cannot afford to build healthy latrines.

### **Get Rid of Mosquitoes**

Mosquito nests eradication can be done through draining and closing water reservoirs, burying unused goods and avoiding mosquito bites. A larva-free environment can prevent diseases caused by mosquito bites such as dengue fever, chikungunya, malaria, and elephantiasis.<sup>23</sup> All families did house larvae eradication by actively cleaning water reservoirs

2 times a week. In addition, the community received abate powder from environmental health workers at the Tosiba Health Center to eradicate mosquito larvae. The public health center has also assigned a cadre of larvae monitors in each village to do inspections, monitoring, and eradication of mosquito larvae, especially *Aedes Aegypti* and *Aedes Albopictus*. These cadres routinely provide counseling to the community regarding the eradication of mosquito larvae. A study stated that there was a significant relationship between the role of larva monitoring cadres in eradicating mosquito nests, periodic larva monitoring and providing counseling and efforts to prevent dengue hemorrhagic fever in the working area of Tebet Timur Village in 2019.<sup>24</sup> The other study explains that there is a significant relationship among people's knowledge, behavior and the existence of mosquito larvae.<sup>25</sup>

#### **Eat Fruit and Vegetables Every Day**

The active chemicals and nutrients contained in fruits and vegetables are called phytochemicals and phytonutrients that are useful for preventing disease, treating and healing. Fruits and vegetables are also a source of fiber, antioxidants, vitamins and minerals.<sup>26</sup> Most families have consumed vegetables and fruit every day and only 3 families do not consume fruits and vegetables every day because they have less income so they cannot buy fruits for consumption every day. The majority of people in Wowa Tamboli village work as farmer (47.70%) who use their gardens to plant vegetables. This result is in line with the study which explains that the indicators of clean and healthy lifestyle are occupied by the consumption of vegetables and fruit because of the easy access for people to get vegetables and fruit. People's access to the market is relatively far so that people can get vegetables from their own gardens. In addition, there are mobile vegetable traders who enter the village in relatively affordable prices.<sup>27</sup>

#### **Physical Activity Every Day**

One of the activities in *Gerakan Masyarakat Hidup Sehat (GERMAS)* program is physical activity. Physical activity is carried out in the form of sports activities and working activities that involve at least 30 minutes of physical activity every day to reduce stress and stimulate

the brain to be happier and relaxed.<sup>28</sup> Most families have been doing physical activity every day and only 2 families do not do physical activity because of their old age so that they are limited to doing activities. A study explains that there are elderly respondents who do not do physical activity because there is no one to accompany them so they tend to be lazy to move. Physical activity in question is an activity that can sweat. Physical activity is needed by the elderly to stay healthy.<sup>29</sup>

#### **Smoking in the House**

In this research, it is still found that 90 families members still smoke in the house. Smoking can damage the immune system. Smoking habits can cause various diseases, especially lung infections such as bronchitis and pneumonia.<sup>30</sup> The reason they smoke in the house is because of the habit they have been doing for a long time. Another reason that they forget smoking in the house can harm the health of other family members, especially the growth and development of toddlers. The results of this study are supported by studies that state there is a relationship between readiness and social environment related to the smoking behavior of the head of family. The fact obtained in the field is that the head of family knows about the dangers of smoking but still smokes in the house.<sup>31</sup>

### **CONCLUSION AND RECOMMENDATION**

In general, the people in Wowa Tamboli Village have properly implemented clean and healthy behaviour on indicators of exclusive breastfeeding, using clean water, washing hands with clean water and soap, eradicating house larvae, eating fruits and vegetables every day, and doing physical activity every day. However, there are still households that have not fully implemented clean and healthy lifestyle because the birthing process is still assisted by traditional birth attendants (3.40%), not weighing babies and toddlers because of the long distance from health services (2.54%) and there are community members who still smoke in the house because they forget or it has become a habit (25.40%). Suggestions for further research to analyze the impact that occurs due to the application of clean and healthy lifestyle that has not been optimal.

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