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Description of Education Level and Health Behavior in Coastal Communities of the Sangihe Islands During the Covid-19 Pandemic

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ABSTRACT

Limited access to social services such as health services and education is a problem faced by communities in coastal areas. The COVID-19 outbreak that hit the world worsened conditions in coastal areas where coastal communities are increasingly vulnerable because the cost of adaptation to coastal damage is already huge, COVID-19 is very likely to increase these adaptation costs. This study aimed to obtain a description of the level of education and PHBS of coastal communities in the Sangihe Islands Regency during the COVID-19 pandemic. The type of research used was analytical survey research with a cross-sectional approach. The sampling method used was proportional sampling with a sample size of 125 respondents. In this study, most respondents were in the age category of 25-54 years (76.8%), the last education category included secondary education (49.6%), had PHBS knowledge in the good category (51.2%); positive attitudes (49.6%) and PHBS actions in the good category (49.6%.). The coastal communities in the Sangihe Islands Regency with the latest education level in the secondary education category had high knowledge about PHBS and had a positive attitude towards PHBS. In addition, they had good actions related to PHBS.

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1. Introduction

The COVID-19 pandemic is a global outbreak that has swept the world. The rapid and continuous spread of the outbreak has the potential to make affected communities vulnerable, as well as communities in coastal areas. This added to the problems that have existed for a long time, such as dealing directly with dangerous natural conditions and various other problems in the form of limited access to social services such as health services and education compared to rural areas located on the mainland (Amanah, 2008). The emergence of the COVID-19 pandemic can make coastal communities more vulnerable because the cost of adaptation to coastal damage is already huge, COVID-19 was very likely to increase these adaptation costs (E. Saputra, 2020).

Sangihe Islands Regency is 142 nautical miles from the Regency Capital to the Capital of North Sulawesi Province with a geographical location between 2° 4'13"- 4° 44'22" N and 125° 9'28" - 125° 56'57" E (BPS, 2021). The geographical position of this island is between Sulawesi Island and Mindanao Island (Philippines), and it is on the lip of the Pacific Ocean. The island is the frontline of Indonesia, which makes the community vulnerable to the specific conditions of coastal communities in general, even more vulnerable because the community is spread across 26 islands. Even before the pandemic, the community

was already facing education and health problems. In 2021, the Central Bureau of Statistics (BPS) stated that 45.4% of the population in the Sangihe Islands Regency only had the highest certificate up to the elementary school level (SD/equivalent) and included 20.54% who did not have an elementary school certificate. Based on data from the Sangihe Islands Regency Health Office, the number of achievements in Household Clean and Healthy Living Behavior (PHBS) in 2021 was 18.3%. PERMENKES RI Number 2269/MENKES/PER/XI/2011 defines clean and healthy living behavior (PHBS) as a set of practices informed by awareness through learning, enabling individuals, families, groups, or communities to independently support their health and actively contribute to public health.

Education is one of the most powerful predictors of health: the more people go to school, the better their health (Freudenberg & Ruglis, 2008). It further stated that the fewer people go to school, the higher their level of risky health behaviors, even completing high school was a useful measure of educational attainment because the effects on health were well studied. Blum & Hendrik in (Pradono & Sulistyowati, 2014) explained that the health status of individuals and community groups could be influenced by various factors, such as internal and external factors. The internal factors in question are physical and psychological factors of a person, while external factors can be in the form of social, cultural, physical environment, economy, politics, education and so on. It is further explained that health status has a positive relationship with education level, environmental health knowledge, and healthy living behavior. Several studies have shown that most coastal communities have low education levels (Nasution et al., 2023) (Pratiwi et al., 2023). Research on coastal communities in Pajukukang Village, Maros Regency, showed a relationship between education level and the implementation of PHBS. It was further explained that people with higher education are better able to absorb health information (Usman K et al., 2020). Based on this description, researchers needed to conduct research on the Vulnerability Study of Coastal Communities in the Sangihe Islands Regency Region during the COVID-19 Pandemic in the Perspective of Education and Health Behavior.

2. Methods

The type of research used was descriptive survey research with a cross-sectional approach. Cross-sectional research design means that the process of collecting or collecting data on the study was only done once, for example, in a daily, weekly or monthly period (Noor, 2014). The place of research implementation was in the North Tabukan District and South Manganitu District, Sangihe Islands Regency. The place of research implementation was in North Tabukan and South Manganitu sub-districts, which are among the top three with the largest area in the Sangihe Islands Regency (BPS, 2021). Sampling was carried out by proportional stratified random sampling, namely the principle of sampling by stratifying the population and then taking a sample from each stratum according to the specified amount (Azwar & Prihartono, 2014). The number of samples in this study were 125 respondents. The research instrument was a questionnaire.

3. Results and Discussion

In this study, data were obtained from 125 respondents who lived in coastal areas. The data obtained were then processed in univariate analysis to see the frequency distribution of respondents based on the characteristics of respondents (age, education, occupation, income, and diseases suffered during the last 1 year), knowledge, attitudes, and actions of respondents toward clean and healthy living behavior (PHBS). The frequency distribution of respondents based on age group can be seen in Table 1 below.

Table 1
Distribution of Respondents by Age Group

Age Group (Year)	n	%
15-24	8	6,4
25-54	96	76,8
>55	21	16,8
Total	125	100

The majority of respondents in this study were in the productive age category, namely 25-54 years with a percentage of 76.8%. The distribution of respondents with the least percentage was in the 15-24 year age category with 6.4% of respondents. In Table 1, it can be seen that most of the research respondents are in the productive age category, namely 25-54 years. At this age, a person will be able to do activities effectively and efficiently. In addition, a healthy and fit body would be able to support one's productivity and quality of life (Kementerian Kesehatan RI, 2024).

Table 2
Distribution of Respondents based on Last Education Level

Last Education	n	%
Basic Education	57	45,6
Secondary Education	62	49.6
Higher Education	6	4.8
Total	125	100

In this study, the last education level of respondents was divided into three categories, namely primary education, secondary education and higher education. The distribution of respondents was mostly in the secondary education category with 49.6% of respondents. As for the higher education category, there were only 4.8% of respondents.

Based on the characteristics of education level, the majority of respondents were in the secondary education category, as many as 49.6%. A person's level of education haa relationship with knowledge about PHBS. Nurselin in Fitriani et al (2021) stated that the higher a person's level of education, the higher the knowledge of the implementation of PHBS in the family (Fitriani et al., 2021). The community's ability to understand and interpret health information will increase as the level of education increases (Long et al., 2022). Studies in the Bali region show that high health literacy will support the implementation of PHBS in households. It is further explained that the higher the health literacy, the higher the knowledge about health and the impact on the implementation of healthy behavior is better (Farmani & Lasmini, 2023).

Table 3
Distribution of Respondents by Occupation

Jobs	n	%
Farmers	21	16,8
Fisherman	15	12
IRT	70	56
More	19	15.2
Total	125	100

Based on occupation, the respondents in this study were mostly housewives with 56% of respondents. Apart from being housewives, some respondents had livelihoods as farmers (16.8%) as well as fishermen (12%). Based on occupation, most respondents were housewives, 56%. Housewives have an important role in the implementation of PHBS in the household. The behavior and habits of a housewife will be an example for children and other family members. Mothers who applied healthy behavior would motivate other family members to behave healthily, and vice versa (Tontuli et al., 2020). Housewives who spend more time at home also influence the behavior of family members, especially in implementing healthy behaviors. Housewives who do not invite or even set an example in doing physical activity and applying a healthy lifestyle will affect children's behavior where children have less awareness to do physical activity.

Table 4
Distribution of respondents based on Income

Monthly Income	n	%
<500.000	98	78,4
600.000-1.000.000	19	15,2
1.100.000-2.000.000	6	4.8
>2.100.000	2	1,6
Total	125	100

Based on the level of income per month, the majority of respondents in this study were in the <500,000 per month income category. Only a small proportion of respondents were in the >2,100,000 per month income category, amounting to 1.6% of respondents.

Table 5
Distribution of respondents based on illnesses suffered during the past year

Diseases suffered during the past year	n	%
Cough / Cold	84	67,2
Hypertension	14	11,2
Diarrhea	4	3,2
Tuberculosis	2	1,6
Worms	1	0,8
None	20	16
Total	125	100

In Table 5, it can be seen that the majority of respondents in the study had suffered from coughs/runny nose during the past year with 84%. Worms were also one of the diseases suffered by 0.8% of respondents in this study. The distribution of respondents based on the implementation of PHBS can be seen in table 6 below.

In this study, 78.4% of respondents had an income of less than 500,000 rupiah per month and when viewed based on diseases suffered during the past year, most of the respondents, namely 67.2%, had suffered from Cough / Cold. Income has a relationship with the application of clean and healthy living in households. This is related to the ability to fulfill health needs. It is further explained that people with low income will be less able to fulfill their health needs (Usman K et al., 2020). Other studies shown that economic status had a significant relationship with the implementation of PHBS where families with low economic status had a greater chance of not implementing PHBS compared to families with high economic status (Fitriani et al., 2021).

Table 6
Distribution of respondents based on PHBS Implementation

Variables	n	%
PHBS Knowledge		
High	64	51.2
Low	61	48.8
PHBS attitude		
Positive	62	49.6
Negative	63	50.4
PHBS Action		
Good	62	49.6
Not good	63	50.4

PHBS in this study could be seen from three aspects, namely knowledge, attitudes, and actions. Based on respondents' knowledge about PHBS, it could be seen that 51.2% of respondents were included in the high knowledge category. In the aspect of attitude about PHBS, 50.4% of respondents

had a negative attitude regarding the implementation of PHBS. Based on the action aspect, 50.4% of respondents had actions that were categorized as not good towards the implementation of PHBS.

In Table 6, it can be seen that the knowledge of coastal communities related to healthy living behavior is included in the good knowledge category, namely 64 (51.2%) respondents. The results of this study were in line with research in Makassar city which showed that most respondents had good knowledge related to PHBS. Good family knowledge could be caused by the family having a fairly high education (Ramla & Bahtiar, 2018). In this study, most respondents were in the secondary education category. According to Wawan, A and Dewi, M (2010) in Widyastuti and Hilal (2017), someone with low education did not necessarily had low knowledge. This could be caused because increasing knowledge was not only through formal education but could also be obtained from non-formal education (Widyastuti & Hilal, 2017)

Based on the respondents' attitudes towards PHBS, most of the people in the Sangihe Islands Coastal Area had a bad attitude about PHBS, namely 50.4%. Attitude is related to a person's efforts in responding to objects and situations that are around him. Attitude is not the same as behavior because behavior does not always describe a person's attitude. A person can show behavior that is opposite to their attitude. When a person got additional information about a particular object or situation, there could be a change in attitude (Notoatmodjo, 2012). The results of this study were in accordance with research in Muara Ciujung Barat Village where the majority of respondents had a negative attitude towards PHBS. The study explained that the respondents' negative attitude was in line with the respondents' lack of knowledge of PHBS (Hermawan & Somantri, 2020). Research conducted in Rangkah Village, Surabaya City showed that attitudes had no relationship with the implementation of PHBS with a P value ≥ 0.05 (Wati & Ridlo, 2020).

Based on the respondents' actions towards PHBS, it could be seen that 63 (50.4%) respondents were included in the category of having poor behavior towards PHBS. The results of this study did not show a significant difference between people who had good and bad behavior about PHBS. Several studies shown that knowledge and action were factors that could influence a person's awareness of clean and healthy living behaviors (Sarofah et al., 2021). This is different from the results of this study which showed that most respondents had good knowledge. Research conducted in East Jakarta showed that there was no relationship between community knowledge and PHBS. Good public knowledge did not guarantee that people would have good PHBS as well, because knowledge was not the only factor that influences a person's actions and behavior (Irasti & Widodo, 2017)

According to Gannika & Sambiring (2020), people who were included in the higher education category have good COVID-19 prevention behavior as well. In addition, the highest level of education completed had a statistically significant effect on the level of community compliance in implementing health protocols. The better the behavior and implementation of public health, the lower the community's vulnerability to disease amid the new normal conditions of COVID-19. PHBS was one of the strategies that could prevent the spread and transmission of COVID-19 (Rahmawati & Kristantini, 2021). It is further said that community behavior plays an important role in suppressing the spread of COVID-19 (Gannika & Sembiring, 2020).

4. Conclusion

Coastal communities in the Sangihe Islands Regency with the latest education level in the secondary education category exhibit high knowledge, negative attitudes, and not good behaviors towards PHBS. Further research is needed to explore characteristics that may influence these factors, including access to information, health-seeking behavior, and proximity to health facilities. Health promotion on PHBS must be carried out regularly to change attitudes and behavior, and various strategies must be implemented so that all coastal communities in the Sangihe Islands Regency area can apply PHBS.

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