

Determinant of Healthy Home in Bendung Village, Kilasah, Serang City

Andiko Nugraha Kusuma^{1, *}, Wiwik Eko Pertiwi¹, Amalia Inderacahya¹

¹*Public Health Study Program, Faletihan University, 42161, Serang Banten, Indonesia*

^{*}*Corresponding author. Email: andiko.kusuma@gmail.com*

ABSTRACT

A healthy home is one of the means for preventing disease transmission in the family environment. Healthy homes are assessed based on 3 groups, namely the components of the house, sanitation facilities, and the house occupant behavior. In the working area of the Kilasah Public Health Center, the lowest coverage of healthy homes was found in Bendung Village as many as 32.77%. This study aims to determine the factors associated with the condition of a healthy home in the Bendung Village working area of Kilasah Public Health Center in 2019. The research design is cross-sectional which the sample is taken by simple random sampling method. The population was all households in Bendung Village with a total sample of 94 respondents. Primary data collection using questionnaires and observation sheets. Secondary data came from the Kilasah Public Health Center and Serang City Public Health Office. The results showed that as many as 87.2% had unhealthy home conditions, 97.9% had low education, 84.7% had low income, 50% lacked knowledge, and 79.7% stated there was no role of health officers. The analysis showed a significant correlation between income ($p = 0.001$), knowledge ($p = 0.019$), and the role of the health officer ($p = 0.000$). This study concluded that the factors associated with healthy homes are income, knowledge and the role of health officers. Suggestions from this study are the Public Health Centre expected to improve education about healthy homes to the community.

Keywords: *education, healthy homes, income, knowledge, role of health officers*

1. INTRODUCTION

Acute Respiratory Infection (ARI) is still a public health problem in developing countries like Indonesia. This is because of ARI is still the main cause of morbidity and mortality of infectious diseases in Indonesia and even in the world. It is estimated that nearly four million people die from ARI each year, of which 98% are caused by lower respiratory tract infections. ARI mortality rate is very high in infants, children and the elderly, especially in countries with low and middle income (WHO, 2007). In 2013, in Indonesia ARI accounted for 16% of causes of death. Basic Health Research (Riskesdas) 2013, states that the ARI Period Prevalence in Indonesia of 25% is not much different from the 2007 data of 25.5% [1].

ARI is one of the environmental-based diseases that can be caused by environmental factors and lifestyle factors. Environmental factors that can affect ARI occurrences are the physical condition of the house (ventilation, temperature, humidity, lighting, kitchen location, roof type, floor type, wall type and kitchen smoke hole) and occupancy density. The physical condition of the house becomes important in the process of ARI transmission because the community spends its time at home to rest or other activities including interacting with

the family. As a place to rest and interact with other family members, the home must be feasible and fulfill health requirements so that the house is able to ensure the health of the family to achieve optimal health. A healthy home is also one part of prevention against disease transmission.

The house is categorized healthy if fulfill the requirements stipulated that are qualify building materials, component and arrangement of the room (floor is waterproof and easy to clean, house wall ventilated, house roof is easy to clean and is not prone to accidents), has lighting requirements, air quality, fulfill the requirements to protect its inhabitants from disease transmission (clean water, garbage disposal, avoiding environmental pollution, does not become a vector nest, etc.), fulfill the requirements to protect occupants from possible dangers and accidents (sturdy, steep stairs, fire hazards, electricity, poisoning, traffic accidents, etc.), and fulfill the basic psychiatric needs of the residents [2][3].

In 2016, Percentage of slum households in Indonesia by province nationwide amounted to 6.07%, where the province with the lowest percentage of slum households are DI Yogyakarta (1.67%), Central Java (1.86%), and Bali (1.90%). Province with percentage largest slum households namely Papua (44.87%), East Nusa Tenggara (29.37%) and Maluku (12.62%) [4]. Data from BPS 2015, based on

the type of area shows that percentage slum households is greater in rural areas than urban areas, namely (9.20%) versus (4.96%). This shows that needed to increase housing provision in rural areas is greater than in urban areas.

Based on the profile data of the Banten Province Health Office, during 2016 there were 1,019,886 houses built and fulfilled the requirements of 60.02% so that the total eligible houses in 2016 were 74.26% of the total existing houses. Serang City is one of the cities in Banten Province with healthy homes coverage that is still low. Coverage of healthy homes in 2018 of 122,457 units that fulfill the requirements is only 15%. Based on data from the Kilasah Public Health Center, out of 1,160 housing units and fulfill health requirements as much as 38.7% and Bendung Village is the lowest in the Kilasah Public Health Center area with 32.7% of the eligible housing units out of 1,248 housing units built.

There are several factors that affect healthy homes, including education, income, knowledge and the role of sanitation officer. In a previous study it was said that people with low education would experience obstacles in the absorption of knowledge information that is lower and have an impact on their lives [5][6]. Someone who has a higher education level will have the desire to have a healthy home and that person will know more about the components that must be fulfilled in a healthy home. Based Warlendra studied (2017), states that the level of knowledge is one of the factors that affect the condition of the healthy home, where people who have a lack of knowledge more risk to have unhealth home [6]. Income also affects the ownership of a healthy home. This is in accordance with Riana's research which states that the higher a person's income, the likelihood of having a healthy home more greater and the better of health officer's role in caring about health education and supervision, the greater the possibility of the community to be able to have a healthy home at least a change in behavior that leads to the component of healthy house occupant behavior [7].

The high number of unhealthy homes in rural areas shows that the understanding of community knowledge about healthy homes is still low, so it is necessary to increase understanding of knowledge of healthy homes that are feasible in health, comfort and safety [8]. Knowledge of healthy homes of residents is also influenced by one's socioeconomic status. If social economic status of population growing higher then his quality is getting better, so if you want to improve the quality of the homes, the socioeconomic status of the population should be increased [9]. This study aims to determine the related factors with the healthy home in the Bendung Village of Kilasah Distric in 2019.

2. METHOD

This research is analytic descriptive with Cross Sectional design, with the dependent variable that is the physical condition of a healthy home and the independent variables include education, income, knowledge, and the

role of health officer. The study was conducted in Bendung Village, the Work Area of Kilasah Public Health Center, Serang, Banten Indonesia in March-May 2019. The population in this study was all of the Family Heads as many as 1,603. The research sample of 94 respondents were taken by simple random sampling. Data collection in this study was carried out by observation of the physical condition of the house and interviews using a questionnaire to the respondents to determine the level of education, income, knowledge and the role of health officer. Analysis and research were conducted bivariately using chi-square test with a value of $\alpha = 0.05$ with a confidence level of 95%.

3. RESULTS AND DISCUSSION

Overview of Healthy Home Conditions

Table 1. Frequency Distribution of Determinants of Healthy House Conditions (n = 94)

Variable	N	%
House Conditions		
Unhealthy	82	87.2
Healthy	12	12.8
Education		
Low	92	97.9
High	2	2.1
Income		
Low	89	94.7
High	5	5.3
Knowledge		
Lack	47	50
Good	47	50
The Role of Health Officers		
No role	73	77.7
Play a role	21	22.3
Total	94	100

Source: Primary Data 2019

Based on the table 1, it is known that most of the respondents' house conditions (87.2%) are unhealthy category, respondents have a low level of education (97.9%), low income/less than UMR (94.7%), have less knowledge level (50%), and state health officers do not play a role in health education about healthy homes (77.7%).

Determinant of Healthy Homes

Based on the research results obtained as follows:

Table. 2 Factors affecting the condition of a healthy home (n = 94)

Variable	Healthy home condition				Total		OR	P value
	Unhealthy		healthy		N	%		
	n	%	n	%				
Education								
Low	81	88	11	12	92	100		
High	1	50	1	50	2	100		0.240
amount	82	87.2	12	12.8	94	100		
Income								
Low	80	89.9	9	10.1	89	100		
High	2	40	3	60	5	100	13,333	0.001
amount	82	87.2	12	12.8	94	100		
Knowledge								
Lack	46	97.9	1	2.1	47	100		
Good	38	80.9	9	19.1	47	100	10895	0.019
amount	84	89.4	10	10.6	94	100		
The role of the health officer								
No								
Play a role	70	95.9	3	4.1	73	100		
Play a role	12	57.1	9	42.9	21	100	17,500	0,000
amount	82	87.2	12	12.8	94	100		

Source: *Primary Data 2019*

Based on the table 2, it is known that the variables associated with the condition of a healthy home are income, knowledge and the role of health officers, with the highest Odds Ratio being the role of health officers (17.50).

Overview of Healthy Home Conditions

A healthy homes is a home as a place to live that meets the technical provisions or health requirements that must be fulfill in order to protect the occupants of the house from various dangers or health problems, so as to enable the occupants to obtain an optimal degree of health [8]. The impact of an unhealthy home can cause environmental-based diseases such as acute respiratory infections (ARI), pulmonary tuberculosis, asbestosis, diarrhea, and DHF. Healthy home evaluation parameters used in this study are based on Kepmenkes No.829/Menkes/SK/VII /1999 regarding housing health requirements consisting of 3 groups, namely components of the house (ceiling, walls, floors, ventilation, kitchen smoke removal facilities and lighting), sanitation facilities (clean water, latrines, waste water disposal, and garbage bins), occupants' behavior (opening windows of rooms and living rooms, cleaning houses and yards, throwing stool in toilets, and throwing garbage in trash bins). Most of the housing conditions in Bendung Village still do not fulfill the requirements with a standard home value <1,068 results of sanitation inspections for healthy homes.

The results showed that the majority (87.2%) of the respondents' homes were in the category of not fulfill health requirements. The results of this study are in line with previous studies which showed that the percentage of respondent houses that did not fulfill health requirements was more (92.7%) compared to homes that were eligible (2,6). The results of observations and interviews also found that most of the respondent's homes did not have a ceiling of 42 (44.7%), the ventilation of the house did not fulfill the requirements of 59 (62.8%),

kitchen smoke holes that did not fulfill the requirements of 48 (51.1%), did not have latrine 30 (31.9%), do not have appropriate bins of 52 (55.3%), occupant behavior that still occasionally defecates in the toilet 52 (56.4%) and 59.6% occupant behavior that still sometimes throws rubbish into the trash. The results of the study are not in line with previous research which shows that the condition of homes that do not fulfill health requirements is lower than the conditions of homes that fulfill health requirements [10].

Determinant of Healthy Homes

Level of education

Education is an effort so that people behave or adopt health behaviors by persuasion, appeal, invitation, provide information, and provide awareness, and so on through activities called education or health promotion (Notoatmojo, 2012). Education is also interpreted as a dynamic process of behavior change, where the change is not just a process of transferring material or theory from one person to another and not a set of procedures, but the change occurs because of awareness within the individual, group, or society itself (Daryanto, 2018). In this study the level of education is divided into 2 categories, namely low level of education (not going to school until graduating junior high school) and high category (first t high school to college). The education level of respondents in Bendung Village shows that the education level is still low, mostly 45 (47.9%) of respondents have only completed education until elementary school, no school as many as 36.2%, junior high school graduates 13.8%, and high school graduates 2.1%.

The results showed that the level of education with a healthy home condition was obtained 92 respondents with low education as many as 81 (88%) had an unhealthy home condition and 11 (12%) had a healthy home condition, while 2 respondents with high education as much as 1 (50%) had a condition unhealthy home and 1 (50%) have healthy home conditions and there is no relationship between education and healthy home conditions. The results of this study are not in line with the results of previous studies which state that there is a relationship between the level of education and healthy home ownership [5][6]. The percentage of respondents who have unhealthy home with low levels of education is more. This is in line with previous research which also states that respondents who have a low level of education have more unhealthy homes [3].

Income

Good economic conditions enable people to fulfill their needs in education and good health in improving health status [11]. Revenues are grouped into 2 categories, namely low income if less than the minimum UMR (<Rp.3,366,512) and high income if more than the minimum UMR (> Rp.3,366,512). The monthly income of respondents in Bendung Village is still less than the UMR (<Rp.3,366,512), because the respondents' livelihoods are

laborers, traders, and farmers so that the income of the respondents generated is uncertain every month. So it is difficult for them to fulfill their daily needs, especially the needs of a decent home.

According to Silvia (2013) in Warlenda and Astuti (2017) income is all revenue in the form of money and goods, both originating from other parties and the results themselves are valued by a certain amount of money at the current price. In research Riana (2009) said if income is high, the more likely it is to have a healthy home. Indonesian people in general have hopes and desires to have a house where they live and have a family, this is very relevant to the amount of income earned each month [6][7].

The results showed that income with healthy home conditions was obtained by 89 respondents with low income as many as 80 (89.9%) who had unhealthy home conditions and 9 (10.1%) who had healthy home conditions, while 5 respondents with high income were 2 (40 %) who have unhealthy home conditions and 3 (60%) who have healthy home conditions. The analysis shows that there is a significant relationship between income and the condition of a healthy home. The results of this study are in line with the results of previous studies which show there is a relationship between economic status and the quality of homes in Rowolaku Village, Kajen District, Pekalongan Regency [9].

In this study respondents who have low incomes are more than those who have high incomes, because most of the respondents' livelihoods are traders, laborers, and farmers, so the income earned is uncertain and less than the minimum UMR (<3,366,512). Then it influences the condition of a healthy home, because low-income respondents experience obstacles in meeting their needs, especially healthy homes, high-income respondents who still have unhealthy home conditions due to the habitual behavior of the respondent himself who is still not good towards a healthy life.

Knowledge level

Knowledge is the result of knowing, and this happens to people who are sensing a certain object. Knowledge has 6 levels consisting of, know, understand, application, analysis, synthesis, and evaluation. Measurement of knowledge can be done by interview or questionnaire that contains the material to be measured and can be adjusted to the levels above [12]. The knowledge possessed by respondents in this study consisted of 10 questions regarding the standards of a healthy home. Percentage of respondents with the category of not good and good can be said to be balanced where some respondents did not know the standard indicators of healthy homes such as ceiling type 65 (69.1%), ventilation size 79 (84%), kitchen smoke hole size 81 (86.2%), PDAM sources of clean water (77.7%), SGL and SGT 53 (56.4%) clean water sources, 69 toilet types (73.4%), 80 sewerage systems (85.1%), and 80 garbage disposal types (85.1%). Most of respondents know the indicators of healthy home like the kind of wall 56 (59.6%), the type of floor 77 (81.9%), and lighting 68 (72.3%). The analysis showed that there was a

significant relationship between knowledge and the condition of a healthy home in Bendung Village, the work area of the Kilasah Public Health Center. The results of this study are in line with the results of previous studies which showed that there was a significant relationship between knowledge and the condition of a healthy home [2]. Some respondents' level of knowledge about healthy homes in Bendung Village did not know or understand the standard indicators for healthy homes such as the type of ceiling, ventilation size, size of the smoke pit, source of clean water, type of latrine, SPAL, type of trash and some were who already know and understand well on indicators of a healthy home standard. Rahmah (2015) said that the good knowledge possessed by the respondent had not been applied in daily life. Knowledge is very closely related to education, where it is expected that with higher education the person will be more knowledgeable [5]. Knowledge can be increased through formal and non-formal education, health education, through information obtained from newspapers, magazines, television and the internet.

The Role of Environmental Health Officers

Sanitarians/environmental health experts are professionals in the field of environmental health, one of which gives attention to aspects of the housing area. The standard for the environmental health profession is that in carrying out their duties, they must play an active, directed and integrated role in national health development (Kepmenkes RI No.376/Menkes/SK /III /2007). The results showed that respondents who thought there was never a role of sanitation officers regarding healthy homes were 68.1%, respondents who thought there was a role of sanitation workers, namely reviewing housing conditions 57 (60.6%), health home counseling 30 (31.9%), and discuss about healthy homes 29 (30.9%). According to Riana (2009) the role of officers is the participation of health workers in providing information about healthy homes as well as participating in the procurement of healthy homes. The participation of officers in socializing the importance of healthy homes as well as conducting routine sanitation checks and healthy housing will provide a positive impetus to the people's desire to be able to obtain or have a healthy home [5]. Respondent who assume there is no role of sanitation officer and have healthy homes as many as 70 (95.9%). This percentage is more than the respondents who stated there was no role of officers and had an unhealthy home. The analysis shows that there is a significant relationship between the role of sanitation officers and the condition of healthy homes in Bendung Village. The results of this study are in line with the results of Riana's research (2009), showing that there is a significant relationship between the role of health officers and the ownership of healthy homes [7].

In this study, respondents in Bendung Village assumed that information was still lacking on the condition of a healthy home. However, this does not mean the lack of training provided by sanitation officers, but rather the condition of the working area of the Public Health Center which is quite

extensive and the lack of human resources for environmental sanitation officers, as well as other supporting factors such as income, knowledge, behavior habits and awareness of the health community itself still lacking and also healthy home conditions.

4. CONCLUSION

Based on the results of the study concluded that most of the respondents' housing conditions did not fulfill health requirements and had a low level of education. Variables that are significantly related to healthy home conditions are income, knowledge and the role of health officers.

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