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Multicenter Research

ANALYSIS OF HOMESTAY MANAGEMENT'S KNOWLEDGE, ATTITUDE AND PRACTICE ASSOCIATION WITH HOMESTAY HYGIENE AND SANITATION AT TOURISM DESTINATIONS IN SEVERAL CITY / REGENCY IN INDONESIA

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ABSTRACT

Background: Tourism is Indonesia's second largest source of foreign exchange. The increase in the number of tourists is in line with the increasing need for services, one of which is the need for accommodation. Homestay is a resident's house rented out to tourists. The tourism sector needs more attention from the government, and one of the sectors is from health. Environmental factors are important determinant factors of tourist health. Owners and workers in homestays, hereinafter referred to as homestay managers, need to pay attention to hygiene and sanitation. Homestay is regulated by individuals, there are no standards regarding hygiene and sanitation.

Method: This study is the first study to analyze the relationship between knowledge, attitudes, and behavior of managers with homestay sanitation hygiene. This study was an observational analytic study with cross-sectional study design. The sample consisted of 156 homestays in tourist areas around the city/district where the Institutional Center (CI) was in July 2018 - June 2019. Data were measured using the results of the questionnaire assessment and observation forms. Bivariate analysis was performed with chi-square and multivariate analysis using logistic regression tests.

Results: This study indicates that there is a relationship between knowledge and sanitation attitudes of homestay managers to the homestay environment, but there is no relationship between sanitation behavior and Knowledge, Attitudes, and Behavior of Hygiene management of homestay to the home environment homestay.

Discussion: Knowledge and attitude towards sanitation are not followed by real action.

Conclusion: Knowledge of sanitation is the factor that most influences homestay house environments with OR 2995. This research is preliminary research, further research, especially on hygiene variables and other variables related to tourist health in homestays can be developed.

Keywords: hygiene, homestay, sanitation, travel

1. INTRODUCTION

Tourism is the second largest source of foreign exchange in Indonesia.[1] There are 2 types of tourist, which are overseas tourists (wisman) and domestic tourists (wisnu).[2] According to the Central Bureau of Statistic, total visits of wisnu to Indonesia reached 14,04 million in 2017. This number shows an increase from 2016 by 21,88 percent.[3] While, cumulative data from the Ministry of tourism from January to October 2017 shows wisman visits to Indonesia reached 252.569.465.

Increase in tourists numbers go hand in hand with the increasing demand of services, one which is the need of accommodation. Accommodation is a facility provided for people who are travelling. In the accommodation, tourist can rest, stay, sleep, bathe, eat, drink and enjoy services or entertainment provided.[4]

Types of accommodations are hotel, hostel, inn, bungalow, cottage, guest house, homestay, and many others.[5] Homestay is a local residents' rented out for tourists. These days, homestays can be found in almost all tourism destinations in Indonesia. According to the Central Bureau of Statistic 2016, homestay ranks second for the most non-starred hotel accommodation after budget hotels, which is 2,940 businesses (18.16 percent).[6] Homestay is the choice of accommodation for the wider community because of its affordable price and its convenience when staying with larger groups.[7] Homestay can be booked directly or through online platforms. Homestays benefit not only the tourist but also the locals since it is the source of income for them.

Significant growth in tourism requires more attention from the government, especially health sectors. Health impacts

affected from tourism are influenced by changes in daily environmental conditions.[8] According to World Health Organization, health problems experienced by tourist during their travels are health problems caused by environmental factors such as travel sickness, bathing/ diving, altitude, and others; sexual transmitted disease such as HIV dan Hepatitis B; Health problems due to vector such as malaria, dengue hemorrhagic fever, and other; direct transmitted diseases such as tuberculosis, and food and beverages related disease such as diarrhea, hepatitis A and E and many others.[9]

One of tourism health challenges in Indonesia is digestive tract disease. Result of the Diarrhea Morbidity Survey in 2014 is 270 out of 1000 population. It is estimated that the number of patients suffering from diarrhea in health facilities in 2016 was 6,897,463 people.[10] Diarrhea is the most common health problem experienced by tourists in Indonesia.[11] The cause of diarrhea includes bacterial, viruses, or protozoal infections.[12]

Food can be contaminated by bacteria because of poor hygiene and sanitation conditions in food processing facilities. Unhygienic food processing and infected sanitation facilities can increase the risk of bacteria growing in the food products.[13]

It is necessary to acknowledge environmental factors as tourists' health determinants. Homestay owner and employee, which hereinafter referred as homestay manager needs to pay attention to hygiene and sanitation in order to prevent digestive tract disease which is mainly caused by poor hygiene and sanitation.[14] There is no official standard of hygiene and sanitation in homestay since it is managed by individuals. Tourist health problems which originate from poor hygiene and sanitation can affect the number of tourist visits. Therefore, the authors are interested in researching relations between homestay manager's knowledge, attitude and practice towards homestay hygiene and sanitation in travel destinations.

2. METHOD

This is an analytic observational research with cross-sectional design. This research is done in homestays at travel destinations in the city or regency near the center institutions from July 2018 - June 2019.

Table 1. Questionnaire's Validity and Reliability Test

Item	n	Cronbach's Alpha
History of illnesses	2	0.780
Knowledge on sanitation	15	0,827
Knowledge on hygiene	5	0.732
Attitude on hygiene	5	0.945
Practice on hygiene	5	0.957
Attitude on Sanitation	15	0.969

Population of this research is homestays at travel destinations in Indonesia. Accessible population of this research is Homestays at travel destinations near the city or regency where CI is located. The sampling method of this research is purposive sampling. Based on sample calculation, 156 samples are needed for this research.

Respondent's willingness is ensured by doing informed consent. For respondents below 17 years old, informed consent is accompanied by parents or guardians. Data is measured by the questionnaire scoring which has been tested for its reliability and validity, and also Healthy House (Rumah Sehat) Observation Form. Validity and reliability score of the questionnaire is shown on Table 1. Data is analyzed with SPSS 22 for Windows. Bivariate analysis is done with chi square and multivariate analysis is done with logistic regression.

3. RESULT

3.1. Characteristics of Respondents

In this research, observation is done on two types of subjects, which is the homestay manager and the homestay where the homestay manager works. The Characteristic of subject in ths research is analyzed according to age, sex, province where the homestay is located, job, income, education level,and homestay cost. The characteristic of the respondent is shown on Table 2 and Table 3.

3.1.1. Homestay manager

a. Age

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The proportion of homestay managers in children (1-17 years old), adults (18-65 years old), and elder categories (66-79 years old) are 1.9%, 95.5%, and 2.6% respectively.

b. Sex

Most homestay manager's gender is male (57.1%).

c. Occupation

Most homestays are managed by employees (n=92) rather than by their owners (n=64).

d. Income

Most homestay managers (59%) have a monthly income lower than the regional minimum wage.

Table 2. Characteristics of homestay manager

Variable	n	%
Age		
Children (1-17 years old)	3	1.9
Adult (18-65 years old)	149	95.5
Elder (66-79 years old)	4	2.6
Sex		
Female	67	42.9
Male	99	57.1
Occupation		
Homestay owner	62	39.7
Homestay employee	94	60.3
Income		
>UMR*	64	41
<UMR*	92	59
Education		
No formal education	5	3.2
ElementarySchool	15	9.6
Junior High School	23	14.7
Senior High School	82	52.6
University	31	19.9

**Upah minimum regional* (Regional minimum wage)

e. Education

Homestay managers who didn't get formal education are 3.2%. Most of (52.6%) homestay managers are high school graduates.

Table 3. Characteristics of homestay

Variable	n	%
Homestay Location		
Jakarta	15	9.6
Yogyakarta	34	21.8
West Java	23	14.7
Bali	32	20.5
Central Java	18	11.5
Banten	2	1.3
East Java	17	10.9
North Sumatra	15	9.6
Cost (Rupiah)		
< 150.000	33	21.2
150.000–500.000	96	61.5
> 500.000	27	17.3
Incidence of Diarrhea in a month		
None	141	90.4
Present	8	5.1
Unknown	7	4.5
Observation of Housing Condition		
Healthy House	64	59
Unhealthy house	59	41

3.1.2. Homestay

a. Location

Most homestays are located in Yogyakarta. While the least located in Banten.

b. Cost

Most of the homestay rent fees are in the range of Rp150.000-Rp500.000. Less than Rp150.000 and more than Rp500.000 are 21.2% and 17.3% respectively.

c. Gastroenteritis incidence in 1 month

In this study, data taken is about the incidence of diarrhea in a month. Based on Table 3, analysis on univariat shows none incidence (90.4%), presence of diarrhea incidence (5.1%) and unknown incidence (4.5%).

d. Housing condition

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In this study, the results of observations regarding the home environment were obtained. Based on Table 3, the observations of the home environment shows unhealthy housing conditions (41%) and healthy housing conditions (59%).

3.2. Homestay Sanitation

The analysis was carried out on the knowledge, attitude, and sanitation practice of homestay managers. Complete descriptive data can be read in Table 4

3.2.1. Knowledge

In this study, the results from the questionnaire data regarding knowledge on sanitation were obtained. The descriptive data of the homestay manager's knowledge on sanitation is categorized as poor (46.8%) and good (53.2%)

3.2.2. Attitude

Attitudes on sanitation were obtained from the questionnaire. A description of the homestay manager's attitude on sanitation is categorized as poor(37.8%) and good (62.2%).

3.2.3. Practice

Sanitation practice is obtained with the questionnaire. Result shows that homestay managers' sanitation practice is divided into poor (41%) and good (59).

3.3. Hygiene of homestay manager

Analysis was also carried out on homestay managers' knowledge, attitude, and hygiene practice. Full descriptive data is shown on Table 4.

3.3.1. Knowledge

From the questionnaire, data regarding knowledge on sanitation were obtained. The descriptive data of the homestay manager's knowledge on hygiene is categorized as poor (44.2%) and good (55.8%).

3.3.2. Attitude

Attitudes on hygiene were obtained from the questionnaire. A description of the homestay manager's attitude on hygiene is categorized as poor (44.2%) and good (55.8%).

3.3.3. Practice

Hygiene practice is obtained with the questionnaire. Result shows that the homestay manager's Hygiene practice is divided into poor (18.6%) and good (81.4%).

Table 4. Sanitation and Hygiene

Variable	n	%
Knowledge on Sanitation		
Poor	41	26.3
Good	23	14.7
Attitude on Sanitation		
Poor	31	19.9
Good	33	21.2
Sanitation Practice		
Poor	31	19.9
Good	33	21.2
Knowledge on Hygiene		
Poor	34	21.8
Good	30	19.2
Attitude on Hygiene		
Poor	22	14.1
Good	42	26.9
Hygiene Practice		
Poor	13	8.3
Good	51	32.7

3.4. Occupation and housing condition

Bivariate analysis was done by using the Chi-square test. Table 5 shows that the p-value is 0.071 (p>0.05) which indicates H0 is accepted so it can be concluded that there is no relationship between the work of the homestay manager and the homestay housing condition.

3.5. Education and housing condition

Based on Table 5, bivariate analysis obtained a p-value of 0.046 (p <0.05) , implying H0 is rejected. It can be concluded that there is a relationship between the

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education of the homestay manager and the homestay housing condition.

3.6. Homestay cost and housing condition

The results of the bivariate analysis using the Chi-square test in Table 5 shows the p-value of 0.043 ($p<0.05$). This indicates H0 is rejected and there is a relationship between homestay rental cost and the homestay housing condition.

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Table 5. Bivariate Analysis on Healthy House Observation

Variable	Healthy House Observation				N	*p-value*
	Unhealthy		Healthy			
	n	%	n	%		
Occupation						
Owner	20	12.8	42	26.9	62	0.071
Employee	44	28.2	50	32.1	94	
Education						
No Education	3	1.9	2	1.3	5	
Elementary School	10	6.4	5	3.2	15	
Junior High School	13	8.3	10	6.4	23	0.046
Senior High School	28	17.9	54	34.6	82	
University	10	6.4	21	13.5	31	
Cost (Rupiah)						
< 150.000	9	5.8	24	21.2	33	
150.000-500.000	39	25	57	36.5	96	0.043
> 500.000	16	10.3	11	7.1	27	
Knowledge on Sanitation						
Poor	41	26.3	32	20.5	73	0.001
Good	23	14.7	60	38.5	83	
Attitude on Sanitation						
Poor	31	19.9	28	17.9	59	0.023
Good	33	21.2	64	41	97	
Sanitation Practice						
Poor	31	19.9	33	21.2	64	0.116
Good	33	21.2	59	37.8	92	
Knowledge on Hygiene						
Poor	34	21.8	35	22.4	69	0.062
Good	30	19.2	57	36.5	87	
Attitude on Hygiene						
Poor	22	14.1	21	13.5	43	0.112
Good	42	26.9	71	45.5	113	
Practice on Hygiene						
Poor	13	8.3	16	10.3	29	0.645
Good	51	32.7	76	48.7	127	

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Table 6. Multivariate Analysis

Variable	*p-value*	OR	CI 95 %	
			Lower	Upper
Knowledge on Sanitation	0.003	2.959	1.431	6.120
Attitude on Sanitation	0.386	1.384	0.664	2.887
Sanitation Practice	0.234	1.535	0.758	3.108
Knowledge on Hygiene	0.187	1.595	0.798	3.188
Attitude on Hygiene	0.278	1.532	0.709	3.307
Hygiene Practice	0.614	0.793	0.321	1.955

3.7. Sanitation knowledge and housing condition

The results of the bivariate analysis of the chi-square test in Table 5 show a p value of 0.001 (p <0.05). This means that H0 is rejected and it can be inferred that there is a relationship between the sanitation of the homestay manager and the homestay housing condition.

3.8. Attitude on sanitation and housing condition

The results of the bivariate analysis of the chi-square test showed a p value of 0.023 (p <0.05). This means that H0 is accepted so that it can be concluded that there is no relationship between the homestay managers' attitude on sanitation and the homestay housing condition. The complete results can be seen in Table 5.

3.9. Practice on sanitation and housing condition

The results of the bivariate analysis of the chi-square test showed a p-value of 0.023 (p <0.05). This implies that H0 is accepted and it can be inferred that there is no relationship between the sanitation attitude of the homestay manager and the housing condition. The complete results can be seen in Table 5.

3.10. Knowledge on hygiene and housing condition

From table 5, it can be seen that bivariate analysis using the Chi Square test shows p-value is 0.116 (p>0.05) which indicates that H0 is accepted, so it can be concluded that there is no relationship between the sanitation behavior of the homestay manager and the homestay housing conditions.

3.11. Attitude on hygiene and housing condition

From the chi-square test in Table 5, It is seen that p-value is 0.062 (p>0.05) which indicates H0 is accepted. This concludes that there is no relationship between the knowledge of the homestay manager's hygiene and the homestay housing condition.

3.12. Practice on hygiene and housing condition

From Table 5, it can be seen that the results of bivariate analysis with chi-square shows p-value of 0.645 (P>0.05) which indicates H0 is accepted. it can be inferred that there is no relationship between the hygiene behavior of the homestay manager and the homestay housing condition**.**

3.13. Factor affecting housing condition

Multivariate analysis is done by logistic regression test to see the factors that influence the score of observation of the homestay housing condition observation. Based on Table 6, it is found that the most dominant factor is knowledge on sanitation with a p value of 0.003 (p <0.05). Knowledge on sanitation has an OR of 2,959 which means homestay with managers having good knowledge on sanitation is 2,959 times more likely to have healthy housing conditions than ones with poor sanitation knowledge.

4. DISCUSSION

Homestay rental cost is related to homestay's housing condition, proven by chi-square test (p=0.043). Interestingly, homestay with relatively higher rental cost does not show a healthier housing environment. The statistic shows that out of 27 homestays whose rental cost is above Rp.500.000, only 41% are categorized to have healthy housing conditions. While

homestays cost from 150.000-500.000, 59% percent homestays have healthy housing conditions. In homestays that cost below Rp.150.000, 72% homestays have housing conditions categorized as healthy.

At first glance, the description above shows that rental price is not an absolute determinant of how healthy the housing condition that homestay offers. This might happen owing to environmental health that is affected by many other determinants.

The Chi-Square test shows that homestay manager education level is related to homestay housing quality (p=0.046). This finding is in line with study by Theodora (2017) in Ende Island which shows a relation between education level and household leader actions with the quality of environment sanitation.[xiv] Knowledge goes hand in hand with education level. Education level in this study is described as the last formal education that respondents completed. Rahmawati (2017) stated that character building and knowledge is obtained in school as a formal education institution. The higher a person's education level someone is, the more knowledgeable he is expected to be.

This research shows correlation between knowledge and attitude on sanitation with housing conditions based on the chi-square bivariate test. These results indicate that the community understands and agrees that sanitation can create a healthier housing condition , even though sanitation behavior is not found to be related to the home environment. Meanwhile, according to Purwaningrum et al (2018), knowledge and attitudes level have a strong and positive relationship with the behavior of residents in fulfilling the components of a healthy house.[15]

According to Notoatmodjo (2010), there are six levels of knowledge, namely knowing, understanding, application, analysis, synthesis, and evaluation. From these levels, the homestay managers who became the research sample only knew two of the six levels, namely knowing and understanding hygiene. This is shown from the results homestays' manager knowledge measurement with the questionnaire instrument. Out of 156 samples, 55.8% homestay managers have good knowledge on hygiene.[16]

Behavior is classified into two, passive form and active form.[17] Within 156 total samples, 81.4% homestay managers' have good hygiene practice. The absence of the relation between hygiene practice and homestay housing conditions is probably due to passive form of behavior, a behavior not followed by concrete action.

There is no relation between knowledge, action and practice on hygiene with homestay housing conditions. This is caused by homestay manager's knowledge, attitude, and practice on hygiene is not applied to daily homestay management.

5. CONCLUSION

There is a relation between homestay managers' knowledge and attitude on sanitation towards homestay housing conditions.

There is no relation between homestay managers' practice of sanitation and Knowledge, Attitude, and Practice on hygiene towards homestay housing condition

6. SUGGESTION

a. For the community, the community is advised to apply sanitation behavior that relates to the home environment since better sanitation leads to healthier houses.
b. For homestay managers, it is recommended to improve hygiene in homestay management. Improving hygiene can be started by providing education such as training on clean and healthy living for homestay managers. However, education alone is not enough. The owner needs to make internal regulations regarding service standards so that there is also an increase in the implementation of hygiene by the homestay manager.
c. For policy makers, policy makers can form a rule regarding homestay standards, especially regarding hygiene, sanitation and healthy housing conditions so that they can maintain the health of tourists as well. In addition, regulations on employment also need to be tightened considering that there are still underage workers.
d. For other researchers, researchers can conduct further research, especially on hygiene variables and other variables related to the health of tourists at homestays.

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