

LEVEL OF MOTHER'S KNOWLEDGE AND ATTITUDE ABOUT HEALTHY AND CLEAN LIFE BEHAVIOR (PHBS) WITHIN SICK BUILDING SYNDROME IN PERMANENT HOUSE OF DUSUN KARANGKENDAL, UMBULHARJO, CANGKRINGAN, SLEMAN, YOGYAKARTA

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Abstract

Health is the right of every human being. One of the factors that affect person's health is behavior. Unhealthy behaviors caused environmental conditions became unhealthy that could make health disorders appear. Karangkendal hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta was an area that used as residential fixed for eruptions victims of Mount Merapi. Low levels of education made mother's level of knowledge and attitude about Healthy and Clean Life Behavior (PHBS) became not good and caused problem for the family such as is sick building syndrome. This research was aimed to study the correlation between the mother's level of knowledge and attitude about Healthy and Clean Life Behavior with the incidence of sick building syndrome in the residential fixed Karangkendal Hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta.

The type of this research was a cross-sectional with survey approach. The sample was 41 mothers. The independent variable in this research was the mother's level of knowledge and attitude about Healthy and Clean Behavior and the dependent variable in this research was the incidence of sick building syndrome in the residential fixed Karangkendal Hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta.

Data were analyzed descriptively and analytically. Analytically with SPSS 17 for Windows to test Chi - Square using 95% as confidence level, obtained p value $(0,031) < 0,050$ for the level of knowledge with the incidence of sick building syndrome and p value $(0,048 \text{ or } 0,050) = 0,050$ for attitudes with the incidence of sick building, so it could be concluded that there was a correlation between the level of knowledge about Healthy and Clean Life Behavior (PHBS) with the incidence of sick building syndrome and there was no correlation between attitudes about PHBS with the incidence of sick building syndrome in residential fixed Karangkendal Hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta.

Keywords : Knowledge Level, Attitude, Health and Clean Life Behavior, Sick Building Syndrome

A. Introduction

A denizen house or building as a group could cause, prevent, ignoring, or fix health problems in its own group. Behavior the inhabitants not only cause health problems, but also prevent health problems and become resources a health problems. Unhealthy behaviour causes the around of life become healthy also. The longer time someone spent inside the unhealthy

building, the emergence risk of an impairment of health is increasing.¹

One of the health problems appears is sick building syndrome as the effect of unhealthy buildings. The primary caused of this syndrome is difficult for determined. But the caused of that pertaining to bad air quality indoor. The syndrome can be caused by pollution which is derived from materials building, furniture inside the home and electronic equipment, ungood

ventilation, biology pollution, ungood maintenance and cleanliness home, unqualified physical environment and psychological factors.²

The occupants of a building will be decreased concentration, low motivation, depression, respiratory disorders, allergies, eye irritation and skin irritation.³ A complaint was usually not too violent, but fairly annoying and influencing someone.⁴ Health conditions could improve after the people is not in the building.

Merapi eruption disaster of November, 26th 2010 caused the damage to the settlement sector, as many as 2.682 houses in Sleman district, Yogyakarta were destroyed and heaped up volcanic material, while 174 house in the province of Central Java had damaged heavy. In addition, cold flood lava occurred and made 341 houses in Sleman, Yogyakarta and 746 houses in the province of Central Java broken and ruined heavy. Through Public Reconstruction Rehabilitation program and settlement based community, *Kementerian Pekerjaan Umum Direktorat Jenderal Cipta Karya* conducted rehabilitation and reconstruction after disaster by helping the victims in building their house back.⁵

Karangkandal hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta is one of the houses area for the victims of Merapi eruption and cold flood lava. Permanent houses will begin inhabited in June 2012. Based on interviewed with the inhabitant of Karangkandal hamlet on June 23rd March 2014, residents in this region is from same hamlet namely Pelemsari hamlet. The majority of citizens work in tourist attractions lava Merapi tour explosion and as farmers and only 5% of the population as a civil servants or private sector workers

Interviewed that conducted on March, 30th 2014 with five mothers obtained information that two people having a family member who have smoking habit, whether it does inside and outside the house. Three people do organic waste management by hoarded the rubbish on vacant land because they feel disgust with the appearance of the maggots on the composter when composting process. At one permanent house there that observed having page with

plastic trash littered everywhere. This condition showed that a lack of knowledge and attitudes owned by the mother cause the conscious in applying PHBS also lacking.

Interview on disease complaints experienced during the last three months were headache, cold, fever, skin irritation or allergy. Discomfort feeling such as trauma and fear experienced by two people, while nausea experienced by one. Complaints that occurs considered only lightly, often mother just buy medicine in a stall and never do prevent the disease appearance such as PHBS.

Based on these problems, then the researcher need to do assessment deeper on the level of knowledge and attitude of mother about clean and healthy behaviors (PHBS) relation to the sick building syndrome in dwelling remain Karangkandal hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta

B. Method

The research is survey research using design study cross sectional, the result will be analyzed a sort of descriptive set and analytic. The population of the research is all mother who lives in dwelling remain Karangkandal hamlet, Umbulharjo, Cangkringan, Sleman, totaling 82. Sample used as much as 41 mother with random sampling technique. An instrument used in research is a questionnaire. Analysis of data used consisting of univariate (frequency distribution in order to data of measurement on the knowledge and attitudes about PHBS mother) and bivariate (whether there were relations between two variables using statistical tests chi-square with trust degrees of 95%).

C. Result and discussion

Univariate Analysis

Based on table 1 it can be seen that the majority of mother in Karangkandal is 20 people (48,78%) having a level knowledge of PHBS in the category of enough. This was caused by a low level of education. The level of education affect the ability a person in catch information given to them. Residents who have not use house read optimally are also one factor causing the lack of information owned.

Table 1. A frequency distribution in the level of knowledge PHBS mother in Karangkendal hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta year 2014

Category	Frequency	Persentase (%)
Good	16	39,02
Enough	20	48,78
Less	5	12,20
Total	41	100,00

Table 2. A frequency distribution in the level of attitude PHBS mother in *Hunta* Karangkendal hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta year 2014

Category	Frequency	Persentase (%)
Good	20	48,78
Enough	21	51,22
Less	0	0,00
Total	41	100,00

Table 2 it can be seen that the majority of mother with 21 people (51,22%) have attitude about PHBS in the category of enough, while in the category of less as many as 0 people (0,00%). This indicates that mother have attitude about PHBS in the category of enough.

Table 3. A frequency distribution in the level of SBS Kick in Karangkendal hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta year 2014

SBS Kick	Frequency	Persentase (%)
Yes	37	90,24
No	4	9,76
Total	41	100,00

Based on table 3 it can be seen that most families represented by mother for every family, with 37 families (90,24%) undergoing SBS complaints.

Based on table 4 it can be seen that the majority of the inhabitants of the *huntap* who was represented by mother for every family as many as 33 families (80,49%) complain headache, while complaints the least truth is queasiness, only 1 family (2,44%).

Bivariat Analysis

From a research has done so it can be seen the relationship between the knowledge and a housewife about clean and healthy behaviors (PHBS) relation to the sick building syndrome in dwelling remain Karangkendal hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta is as follows:

Table 5. Relations level knowledge mother about PHBS with a sick building syndrome in *huntap* Karangkendal hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta 2014

Level of Knowledge	SBS Kick	
	Yes	No
Good	12	4
Enough	20	0
Less	5	0
Sig. (2-tailed)		0,031

Based on statistical analysis using chi - square showing that the p or sig (2-tailed) is 0,031. This means the p smaller than 0,050 and showed that *Ha* received or meaningful is relation between the level of knowledge of mother about clean and healthy behaviors (PHBS) in the sick building syndrome in dwelling remain Karangkendal hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta.

One of the factors that influences the level of knowledge is the education level of mothers. As many as 53,66 % of mother's education in Karangkendal *huntap*, Umbulharjo, Cangkringan, Sleman, Yogyakarta have only until the level of elementary school. The level of education is one factor that influences the level of knowledge as well as someone strongly influence the behavior of health of a person. Low education is causing family to be poor in identified the problem and take the decision to solve the problem.¹ In addition, others factors affect a lack of the level of knowledge mother in Karangkendal is also caused by access to information about general health that is difficult. The distance Karangkendal area with a bookstore and library is far, that causes people difficult add information about health. The provision of the reading house in the area of Karangkendal not

yet used optimally by the citizens. This can be seen from the absence of activities citizens in readinghouse during the research doing. People awareness to use the internet in increasing their knowledge also is weak, residents by low education even do not understand with functions and how to use the internet.

The descriptive analysis showed that 53,66 % mother in Karangendal *huntap*, Umbulharjo, Cangkringan, Sleman, Yogyakarta have a job as farmers. The job makes them use most of the power to do the work of the fields, and oftentimes it is already being in a so she would have homework however they can. A mother who works as farmers completely different with a housewife in doing some house duties, as cleaning house and managing the furniture in the house. Mother of a profession only as a housewife will have time and effort enough to keep charge her house, so that it can be created the house clean, healthy, and able to minimize the contaminant that can cause the sick building syndrome.

The application of PHBS in a family to improve health the member of family so that members of family to be not easily getting sick.⁶ The application of PHBS also it can prevent the sick building syndrome. Sick building syndrome occurred as a result of the pollution which from inside and outside of a building that causes air quality in occupancy for the worse.⁴ The application of PHBS in sphere family to be one of efforts to prevent sick building syndrome, as by PHBS of contaminants in the house can be minimize and avoided.

While the types complaints sick building syndrome the most experienced by the inhabitants of respondents are impaired neurotoxic with 33 families (80,49%). Neurotoxic disorder the most complain about the are headache. The headache can induced in chemical vapors of furniture and from building materials who pollutes room.⁷ The rate and conditions ventilation also affect the appearance of complaints sick building syndrome in the inhabitants of the house.⁸ Ventilation in this area rare cleared causes the dust accumulate on ventilation, in addition found permanent house with ventilation and the roof part in having cobwebs. This showed that the inhabitants of the permanent house especially mothers have not realized that the conditions ventilation can influence the appearance of complaints sick building syndrome in the inhabitants of the permanent house. The ventilation position that is tall and difficult to reach cause mother rarely clean the ventilation.

A dusty ventilation condition can disrupt exchange air and increase the dust in a room, in addition awareness of residents to open the window dwelling that is weak can cause dust or pollutants of in space not be absent into an environment. The inhabitants will exposed by dust in cot and it can be caused respiratory disorders as shortness of breath and taste heavy in the chest. The use of the asbestos roof also will weaken air quality indoor because asbestos fibers in the sand. The bad air quality as a result of these pollutants in space cause respiratory disorders and irritation on the nose, this is

Table 4. A frequency distribution in the type of SBS Kick Karangendal hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta year 2014

Type of SBS Kick	Frequency	Percentage (%)
Irritation of the mucous membrane (the eyes grievous, red, and watery)	3	7,32
Skin irritation (itchy skin and allergic)	12	29,27
Have a cold	29	70,73
Fever	30	73,17
Neurotoxic Disorder (headache, easy tired, easily offended, have trouble sleeping, and difficult to concentrate)	33	80,49
Gastroduodenal Disorder (nausea, appetite down, and diarrhea)	1	2,44
Irritation the nose (the itch in a nose)	29	70,73

proven by the mother complaining about respiratory disorders of 7.32 % and irritation the nose of 70,73 % .

A profession mother as farmers or traders to the location of work being in Kinahrejo which is quite far from the location this permanent house force mothers have to go through the road that often used by the truck carrying sand.It could be one of the causes of eye irritation, skin irritation, and respiratory disorders upon the mother, since it is often exposed to dust when will work and going home after from working.The condition of the house who are not clean and dusty air as well as exchange irregular also became one of the causes of complaint eye irritation, irritation of the skin, and respiratory disorders, so as not only a factor of outer be the cause of the an impairment of health but also a factor of the house can lead to the emergence of an impairment of health.

Table 6. Relations mother attitude about PHBS with a sick building syndrome in *huntap* hamlet Karangkendal, Umbulharjo, Cangkringan, Sleman, Yogyakarta 2014

Attitude	SBS Kick	
	Yes	No
Good	16	4
Enough	21	0
Less	0	0
Sig. (2-tailed)	0,048	

Based on the results of statistical tests by using chi-square showing that the p or sig (2-tailed) is 0,048 rounded be 0,050.This means p value equal to 0,050 and shows that Ho received or there was no a correlation between mother attitude about the clean and healthy living (PHBS) with a sick building syndrome in dwelling fixed hamlet Karangkendal, Umbulharjo, Cangkringan, Sleman, Yogyakarta .

An attitude had no relationship meaningful by the application of PHBS.⁹it can be happens because some factors that influences attitude mother as personal experience, the influence of others, the influence of culture, mass media, educational institutions and religion, as well as the emotional.¹⁰

The complaints sick building syndrome for the can be caused by there are not yet the mother's creation of interest in realizing attitude about PHBS in a real action.The number of PMKS also affect the cleanliness and health in house so that it can contribute to complaints sick building syndrome in its inhabitants.This is in accordance with research that density occupancy influential to events sick building syndrome in a family.¹¹

Mother's attitude about PHBS if not supported by consciousness of other family members to PHBS or attitude PHBS, it is not be separated the condition dwelling that healthy. PHBS cannot be done without any of consciousness of all members of a family.⁶

The better of person attitude of PHBS, hence it is more possible to act the PHBBS well.This is evidenced by the results of the analysis the data indicate that there has been 9,76 % of mothers in Karangkendal have the attitude of PHBS in the category of good which do not undergo complaints sick building syndrome. There were not complaints sick building syndrome is caused by because the mothers know about PHBS has been realized in the form of a real action as trying to keep occupancy to stay clean and avoid the polluter by cleaning occupancy every day, prohibit a member of the family to be smoked in occupancy, clean the yard, clean air ventilation, and clean up privy every day.It is based on research that attitude a good mother against PHBS had an impact on their home cleanliness.¹²

Mother has a big role in regulating and creating the conditions in the house and life a member of her family at home, hence mother attitude in PHBS it would affect of health care a member of a family members.Mother also have a role to teach her family to accustom behave clean and healthy living, as guard personal health and maintain cleanliness houses and neighborhood .

D. Conclusion

There is relationship between knowledge mothers about clean and healthy behaviors (PHBS) with the sick building syndrome on inhabitant of Karangkendal hamlet, Umbulharjo, Cangkringan,

Sleman, Yogyakarta (a value $p = 0,031$). But, there was no relation between the attitude of mothers about clean and healthy behaviors (PHBS) with the sick building syndrome on inhabitant of Karangkendal hamlet, Umbulharjo, Cangkringan, Sleman, Yogyakarta (a value $p = 0,048$ rounded become 0,050).

E. References

1. Harmoko. 2012. *Asuhan Keperawatan Keluarga*. Yogyakarta: Pustaka Pelajar.
2. Abdul-Wahab, S. A. 2011. *Sick Building Syndrome in Public Building and Workplaces*. London: Springer.
3. Akmal, I. 2005. *Rumah Mungil yang Sehat*. Jakarta: Gramedia Pustaka Utama.
4. Aditama, T. Y. (Ed). 2002. *Kesehatan dan Keselamatan Kerja*. Jakarta: UI-Press.
5. Ditjen Cipta Karya. 2013. *Pembangunan Permukiman Layak Huni dan Berkelanjutan*. Diunduh dari: http://rekompakciptakarya.org/download/files/Factsheet/2013%20Okt%2017_Factsheet%20All%20Huntap%20REKO_MPAK%20CK_2.pdf pada 5 Februari 2014.
6. Proverawati dan Rachmawati. 2012. *Perilaku Hidup Bersih dan Sehat (PHBS)*. Yogyakarta: Nuha Medika.
7. Riyadina, W. 1997. Efek Biologis dari Paparan Radiasi Elektromagnetik. *Media Penelitian dan Pengembangan Kesehatan*. Volume 7(1). Jakarta: Badan Penelitian dan Pengembangan Kesehatan Depkes RI. Diunduh dari: <http://ejournal.litbang.depkes.go.id/index.php/MPK/article/view/967/1607> pada 4 Maret 2014.
8. Fisk, W. J., Mirer, A. G., dan Mendell, M. J. 2009. Quantitative Relationship of Sick Building Syndrome Symptoms with Ventilation Rates. *Indoor Air Journal*. Volume 19(2). Berkeley: Lawrence Berkeley National Laboratory. Diunduh dari: <http://www.iaqscience.lbl.gov/pdfs/vent-3.pdf> pada 8 Maret 2014.
9. Abuna, L. 2012. Hubungan antara Pengetahuan dan Sikap Ibu dengan Terapan PHBS pada Tatahan Rumah Tangga di Desa Bukit Tinggi Kecamatan Popayato Kabupaten Pohuwato Tahun 2012. *Public Health Journal*. Volume 1(1). Gorontalo: Universitas Negeri Gorontalo. Diunduh dari: <http://ejurnal.fikk.ung.ac.id/index.php/PHJ/article/view/118> pada 17 Juni 2014.
10. Azwar, S. 2002. *Sikap Manusia Teori dan Pengukurannya*. Yogyakarta: Pustaka Pelajar.
11. Wijiyati. 2012. *Hubungan Kepadatan Hunian, Penataan Ruang dan Pencahayaannya dengan Kejadian Sick Building Syndrome di Rumah Susun Sewa Grha Bina Harapan, Yogyakarta*. Karya Tulis Ilmiah tidak diterbitkan. Yogyakarta: Jurusan Kesehatan Lingkungan Poltekkes Kemenkes Yogyakarta.
12. Pratiwi, P. D. A. 2012. *Hubungan Tingkat Pengetahuan dan Sikap Ibu tentang Perilaku Hidup Bersih dan Sehat (PHBS) dengan Tingkat Kebersihan dalam Pengelolaan Sarana Sanitasi di Rumah Shelter, Gempol, Jumoyo, Salam, Magelang*. Karya Tulis Ilmiah tidak diterbitkan. Yogyakarta: Jurusan Kesehatan Lingkungan Poltekkes Kemenkes Yogyakarta.