

Environmental Health Behavior and Morbidity of Children in Community Settlement Brantas Riverbanks Malang

Budijanto Singgih Susilo

Faculty of Social Science, State University of Malang, Jalan Semarang 5 Malang, Indonesia

Abstract

Poverty is still a chore for the government, because there are some people who live below the poverty line. The problem of chaotic urban settlements, causing a rundown neighborhood scattered in various corners of the city on the banks of the river or railroad .. The purpose of this research is to find and uncover various conditions melatar background of low public environmental health behavior, this study uses a quantitative approach, as population in this research are housewives who have a toddler, a sample was taken by purposive, to gather information through interview techniques and interview indept Analysis of the data with descriptive analysis. The results showed that more than half of infants during the past 30 days been sick. Community environmental health behavioral characteristics show that some people, there are those who use the springs on either side of the river as a source of clean water. Besides, there are still some people who throw garbage, fecal waste, and dispose of household waste water into the river .. The results showed that health behaviors affect the infant morbidity. Associated with knowledge and attitudes towards environmental health is good, but their actions are less. It is recommended that health education efforts are further enhanced by health workers to the settlement area Brantas river banks, so that the community settlement area along the river Brantas more active role in running the program - the environmental sanitation program of the city government

Keywords: Behavioral health, biophysical environment., Morbidity

Background

Quality of life of a nation can be measured from the low mortality rate, the level of socio-economic, environmental pollution, malnutrition, provision of clean water is high because in order to reduce the death rate, especially in infants and children need social support the economy, especially for the implementation of healthy living, education and conditions of the biophysical environment (MCK, household waste dumps and landfills) neighborhoods

Infant Mortality Rate (IMR) in Indonesia is still relatively high, if compared with other countries in the ASEAN region. Based on the Human Development Report 2010, IMR in Indonesia reached 31 per 1,000 births. That figure, 5.2 times higher than Malaysia. Also, 1.2 times higher than the Philippines and 2.4 times higher when compared to Thailand. , Meanwhile, to achieve the Millennium Development Goals (MDGs) in 2015, the MMR of 102 per 100,000 live births and IMR of 31 per 1,000 live births, it took a harder effort and participation of all parties.

Until now poverty is still a chore for the government, because there are some people who live below the poverty line. The problem of chaotic urban settlements, causing a rundown neighborhood scattered in various corners of the city. Malang example, they settled on the banks of the river, and the edge of the railroad often where one house inhabited by more than one family. Data from BPS shows that in 2010 an average of 30% of urban households do not have proper sanitation facilities. In 2010 BPS recorded almost 60% less viable settlements urban areas do not have good sanitation. This is due to the limited water resources control, not reached by the distribution network, the declining quality of water sources, as well as lack of awareness of the importance of clean water and sanitation to health.

Such symptoms above, also occurred in the Brantas watershed Malang Therefore, for us to think about health improvement efforts, especially in young children, that child survival can be increased as in developed countries.

Special Purpose

In general, this study aims to discover and reveal the most fundamental problems related to the low public environmental health, especially the health of children. In particular the research objectives: Find and uncover various background conditions of Conduct environmental health community residential community along the river Brantas. The goal described as follows

1. Finding and exposing environmental health behavior.
2. Find and reveal the influence of environment on the health behaviors of the infant.

Literature Review

Research on the development model of health behavior management biophysical environment Bantaran local public housing communities Brantas river Malang is supported by some of the results of previous studies. which

in general can be presented again as follows: first Sumunar (2000) Factors that continue to push lower environmental health community settlement area of research in addition to the limited infrastructure environmental health, demographic characteristics which are less profitable and low education and socioeconomic conditions, low access to opportunities work which adversely affects the health of communities settlements disadvantaged communities and the health of toddlers who until today still characterized by high levels of morbidity of children's physical health, mental health, social health for individuals and families, Second Marwasta (2001) stated that most of the people use wells as a source of drinking water (42%) and in terms of the requirements most of which already meet the health requirements of construction (85.72%), its depth (100%) qualify, floor (76.19%) and lips (85.72 %). Disposal of household waste is collected only on growth is normally recorded at page without holes (42%). Excreta disposal generally use WC Goose Neck (42%). Disposal of waste water in general using an open channel to the trench (57%). Public behavior is still largely passive behavior which is a good knowledge of the respondents (64%), good attitude (60%), while respondents who act well only for (32%). Asses Brotowasisto, (1990) Health is a prerequisite for creating a prosperous family, for it required a fee. The amount of income directly affect the costs incurred for health. High income earners have a great opportunity to improve their health than those on low incomes. A study among low-income families. Fourth Ascobat Gani (Prisma, 1990) Increased education and incomes of the population, especially in the cities led to demand for health services more modern and advanced also increased. In Ponorogo shows that urban higher education cause demand to switch from health center to better service. By contrast, in the village, education and higher incomes lead to higher demand for health centers as well. Fifth Population (1991: 33). Water wells as a source of clean drinking water late in the cities has decreased its quality due to pollution plant and septic tanks are built too close to the wells. This can affect health. The bathroom facilities in Indonesia is also not good. In 1985 in the city, 40% of households do not have their own bathroom, while the rural household has its own bathroom just 26.5%. Data from 1985 showed that 65% of households do not have a bowel movement itself Sixth (Hainess and Arvey, (1982) In Costa Rica, studies the relationship between mortality with housing conditions) suggests that the figure possibility of child deaths before the age of 2 years low, when the mother's residence has a channel running water and septic tank. Thus, a state of good sanitation facilities to be supported by a full house. Seventh, Mosley and Chen, (1984: 26). States that the provision of clean water and sanitation is an important part to better ensure the health of children and other family members. To consider that the availability of clean water and sanitation is only part of the many factors that will affect kesakitan. Sepintas seen the contradictory both in terms of water sources used for drinking, bathing and laundry as well in terms of education. However, these findings illustrate that the group education (relatively) high over the healthy conscious. So that the incidence of health problems of a family member has been reported as sick. In contrast to those who are not aware that they are healthy who never finished elementary school or new family members reported pain when the pain was severe. Eighth "Health for all by the year 2000" in 1977 is a declaration of mankind to obtain their rights in health. Correspondingly, the development in Indonesia in the context of the era took off trying to prepare healthy human being optimal in order to play a role in development. For women, work motivation is solely to increase the income of the husband's work, and not to fill the free time I've ever encountered in the cities. Ninth Joseph (2005). Research results indicate that the unit density neighborhoods irregular meeting neighborhoods tend to have bad quality, while unit density neighborhoods regularly rarely have good quality housing environment. This situation proves that the density and regularity of factors affect the quality of building settlements.

Research Methods

In accordance with the purpose of this research is to get an overview of the characteristics influence social, economic, demographic and health behavior towards the biophysical environment in disadvantaged communities on the settlement Brantas watershed in Malang. Therefore, this study used a descriptive quantitative approach to design in the form of surveys, including the type of research "explanatory research. As the population in this study are housewives who have a toddler in Malang. The number of samples to be taken 300 respondents with a simple random sampling technique.

To obtain reliable data, used interviews freely referring to the questionnaire that has been made. Interviews were conducted with mothers of households with children in the study area. Thus the primary data that are reliable can be pursued The analysis used in this study: 1). Descriptive Analysis (tabulation)

Results And Discussion

Morbidity Toddlers

Morbidity toddler an infant in pain as measured by the duration of illness in the last 30 days since the study was conducted. The following table describes the circumstances under five morbidity in the Brantas River Basin Malang.

Table .1
Toddlers morbidity Brantas River Plate Society Malang

Morbidity (sick time)	Frequency	Percentage
0	142	47,33
< 3	92	30,61
3 - < 6	37	12,29
6 - < 9	23	7,58
> = 9	6	2,19
amount	300	100,00

From the above table can be explained within the past 30 days showed that there is 47.33% children have never been sick in the last 30 days. There's never been sick toddler 52.67%, of which for sick infants <3 days amounted to 30.61%, toddlers sick 3 - <6 days; 12.29% pain 6 - <9 days amounted to 7.58% and sick infants > = 9 days amounted to 2.19%. The average length of sick infants was 1.8 days meaning that the average length of sick children in the study area is less than 2 days toddlers had healed. This condition can be understood that the PKK in this area is very active every week there is a health department inspection of the town because it received special attention from the government of Malang. The results showed that the high rates of infant morbidity in an area due to behavioral factors (behavioral treatments during pregnancy and baby care, as well as environmental health behavior) and environmental health factors.

Biophysical Environmental Health Behavior Settlements.

Environmental health is an important factor in social life, even one determinant or determinant element in the welfare of the population. Where a healthy environment is necessary not only to improve public health, but also for the comfort of living and improve the efficiency of work and study. Therefore neighborhoods is a collection of homes equipped with the infrastructure and facilities required to facilitate such activities within the community. Location of a nice residential neighborhood to be within the area designated for housing, and not in the environment should not the environment not to settlements such as industrial areas / factories, riverbanks harmful / disruptive comfort for occupants residential neighborhood in this study is the environment that should tidak to the environment, namely housing settlements located along the river Brantas in Malang. Things that should be met for a housing are: Provision of adequate infrastructure, clean water supply, sewerage, waste disposal place and if possible the phone.

a. Water Source

In this case that is the source of clean water is the water that is consumed for the purposes of everyday life. The water consumption includes eating and drinking, bathing, and washing. Sumber clean water is a tool that is used in everyday life associated with basic needs to eat and drink. The use of these facilities reflect the behavior management of the health of each household. Associated with the use of water resources research area appear in the following table.

Table. 2
Water Source Community Regional Settlement Brantas River Plate Malang

No	Water Source	Frequency	Percentage
1	River	29	9,7
2	Well	77	25,7
3	PDAM	194	64,6
	Amount	300	100,00

To find a picture of the sources of water used, divided into three sources, namely taps, wells and rivers. Furthermore, from the water consumption can be divided into two, namely for bathing, washing and consumption to eat / drink. Based on the above table shows that 64.6% of the population already use taps as a source of clean water for daily life, this shows that the taps as a source of clean water no doubt because it meets health standards for consumption. While people who use wells as a source of clean water is still quite high at 25.7%. Based on the results of the research showed that most people use wells as a source of drinking water (42%) and in terms of the requirements most of which already meet the health requirements of construction (85.72%), its depth (100%) were largely already using Sanyo. On the other hand there are still 9.7% that use the river as a source of clean water. The findings are to be scrutinized even though only 9.7%, it shows that there are still environmental health behavior management who do not understand the meaning of health. But the researchers search results through in-depth interviews of this group only for bathing and washing only, whereas for the purpose of eating and drinking there are some who take the neighbor's well water, but there are also those who say take from springs that exist around / on either side of the river. Based on the description above can be concluded that the majority of the community while managing behavior have good health associated with the use

of clean water.

b. Toilet / Bath, Wash and Latrine

Toilet / Bath Wash latrines are the means that are used in daily life activities related to bath, wash and defecate. The use of these facilities reflect management keshatan behavior of each household. Related to the activities of research areas appear in the following table.

Table. 3

Wash bath latrine (MCK) Regional Settlement Society Brantas River Plate Malang

No	Wash, bath, and latrine	Frequency	Percentage
1	River	46	15.3
2	Public Wash, bath, and latrine	89	29,7
3	Private Wash, bath, and latrine	165	55.0
	Amount	300	100.00

Based on the above table shows that 55.0% of the population already have their own toilets. Excreta disposal generally use WC Goose Neck (100%) as a tool that is used in everyday life associated with bathing, washing and defecation. On the other hand there are 15.3% who use the river as a toilet. The findings are to be scrutinized / get special attention, although only 15.3%, it shows that there are still environmental health behavior management who do not understand the meaning of health. But the researchers search results through in-depth interviews of the group not only to the outhouse alone but including bathing and washing. While water resources are used for eating and drinking there are some who take the neighbor's well water, although there are also said taking of springs that exist around / on either side of the river .Therefore health behaviors of this group are those who reside exactly riverside Yet despite this it can be concluded that the findings while most people have understood the importance of health indicated in perilku managing good health for family members in the household.

c. Discard Trash place

Throw Trash place the means that are used in daily life associated with waste generated from their activity in one day. The use of these facilities reflect management keshatan behavior of each household. Related to the activities of research areas appear in the following table.

Table. 4.

Discard place Trash Society Regional Settlement Brantas River Plate Malang

No	Discard Trash place	Frequency	Percentage
1	River	51	24.3
2	Sewers / yard	15	5,0
3	Special place	212	71,7
	Amount	300	100.00

Household waste disposal shows that 71.7% is generally collected yard and already has a special place landfills. Means that there are beuat of rubber tires, there is such a small tub made of cement, and some made of tin in the form of a small drum) there is a simpler form of baskets made of woven bamboo., But landfills have not been divided between plastic waste and forms other and so on. These communities could be interpreted to have good management yang health behaviors, they are well aware that waste consisting of remnants of the exhaust that influence population health. On the other hand menpat attention that needs to be scrutinized and there are 29.3% who use the river (24.3%) and slokan (5.0%) as a place to dispose of garbage. These findings need to be criticized that, it shows there are still groups of people have a behavior management of environmental health who do not understand the meaning of health, because the trash when left in beberpa day besides causing a bad odor will also damage the health of particular groups of people who are sensitive are children, too could lead to flooding in the rainy season. However, the search results of researchers through the observation of this group are those who live by the river and the corners of settlements didektnya there slokan rather large so that no rain will be washed away by water slokan fairly heavy because of the slope of the land settlement rather steep. On the other side of the interview that every day there are officers collector who in salary each month of the contributions of people coordinated by the chairman of the local neighborhood. But despite this it can be concluded that the findings while most people have understood the importance of health indicated in perilku managing good health for family members in the household.

d. Household Waste Disposal

Tangga home toilet waste are the means that are used in daily life associated with the waste produced sebari-day activities in the form of liquid household appliances washing results ndapur finished cooking and washing clothes and so on results. The use of these facilities reflect the behavior management of the health of each household. Related to the activities of research areas appear in the following table.

Table. 5.
Waste Disposal Regional Settlement Brantas River Plate Malang

No	Waste Disposal	Frequency	Percentage
1	Sungai	62	20.7
2	Open drains	182	61,6
3	special place	56	18,7
	Amount	300	100.00

Based on the above table shows that 61.6% of the waste water disposal sites generally use an open channel to the trench, so that in addition to the type of waste material that seemed dirty and cause poor sight also cause a bad odor and disturb comfort. If the condition is left in a relatively long time can cause a variety of diseases and the environment is not sehat. Selanjutnya only 18.7% of households had a household waste disposal in particular in the form lubang absorption wells with a depth of about four meters above casted cement which is a hole in the form of a pipe as supitank low percentage of households is due to the distance between the house that is too tight / close so that no land used for waste disposal location recharge wells. These households could be interpreted to have good management yuang health behaviors, they are well aware that the household waste which consists of the remnants of the exhaust that affect the health of the environment. On the other hand there are 20.7% of households dispose of household waste directly into the river, especially for households that berbatasab directly to the river. These findings need to be criticized that, it shows there are still groups of people have a behavior management of environmental health who do not understand the meaning of health, because the household waste when left in beberapa day besides causing a bad odor will also damage the health of the environment, especially groups of people who are sensitive are toddlers .. But even so it can be concluded that the findings while most people have understood the importance of health indicated in perilku managing good health for family members in the household.

2. Based on Behavioral Health Morbidity Toddlers

Tabel.6.
Use of Morbidity Toddler Behavior Based Environmental Health Regional Community Brantas River Plate Malang

No	Health behavior.	Toddlers morbidity (days)										Amount	
		0		<3		3 - <6		6-<9		>9		F	%
		F	%	F	%	F	%	F	%	F	%		
1	Low	4	1.33	5	1.67	18	6.00	15	5.00	5	1.67	47	15,67
2	Medium	42	14.00	30	10.00	15	5.00	8	2.66	1	0.33	96	32.00
3	High	96	32.00	57	19.00	4	1.33	-	-	-	-	157	18,67
Amount		142	47,33	92	30,67	37	12,33	23	7,66	6	2,00	300	100.00

Based on the table above shows that the households that have a good health behavior there is a tendency lower morbidity. Terbut phenomenon seen in household yan high health mperlaku no toddlers morbidity is more than 6 days crumbling sick infants less than 6 days. But on the contrary households that low health behaviors there are some children who morbidity babies over 6 days. The phenomenon can be understood as a toddler is very sensitive to the conditions lingkungan biosik less supportive. Such as the use of water from springs on either side of the river, trash semabarangan place, dispose of household waste in the open slokan causing odor and cause environmental pollution. Conditions like these that cause high morbidity toddlers. The phenomenon is still quite high at 9.66% (10%) children, the pain of more than 6 days, some even morbidity is more than 9 days, although only 2%. However, the situation should get the attention of local authorities, especially village heads through PKK cadres in order sdityeruskan to the health department to get help through a special program of health.

Conclusion

Based on the research results can be summarized as follows:

1. Behavioral health biophysical environment based largely landfills already have a special place, but need attention there are still some people who throw garbage in the river, so this group should be a priority scale to change the behavior management keshatan biophysical environment.
2. Behavioral health biophysical environment by household waste dumps most of them dispose of waste at slokan closed, it needs to be improved in order to be disposed of at the site of absorption wells khusus form. This group is still a small part of society. But that must be considered again is still a part of society that household waste through open sewers and straight into the river.
3. Conduct a biophysical environmental health associated with the use of clean water most household already uses taps means no health problems related to the environment. But the need to be aware there are some people who use the springs at the edge of the right / left of the river. Spring is still doubtful cleanliness

because it is very possible there is contamination from seepage water from the settlements.

4. Conduct a biophysical environmental health associated with the use of toilets where most have a special place, which means they have their own toilets no longer use public toilets. On the other hand there is the need to be aware that there are still some of the people who use the river as a toilet. Hence the need for concrete measures to provide insight in addition to polluting the river because the water is still used by most people in the downstream section.

Policy Implications

1. There are still some people who throw garbage in the river, specifically this group in order to get into scale priority attention to change management perilaku environmental health.
2. It should be scrutinized and watch out for and be aware of is the majority of people who dispose of household waste through open sewers and straight into the river which would cause pollution.
3. Need to be aware there are some people who use the springs at the edge of the right / left of the river. Spring is still doubtful cleanliness because it is very possible there is contamination from seepage water from the settlements.
4. Need to be aware there are still some of the people who use the river as a toilet. Hence the need for concrete measures to provide an understanding of the impact on the river, especially by the majority of the population downstream section.
5. The high dependency 5 to 6 people. which is considered as the average number of children born alive (fertilitas) 3-4 kids that can be controlled through the woman's age at first marriage, contraceptive use and infant mortality.

References

- BPS, 2012 : Malang dalam Angka, Malang, Badan Pusat Statistik Kota Malang
- Cahyatin Nurul, Nubarak,, Wahid Iqbal, 2009: Ilmu Kehatan Masyarakat : Teori dan Aplikasi. Jakarta: Salembab Medika
- Iskandar, Zulrizka,2013 : *Psikologi Lingkungan: Metode dan Aplikasi* ,Bandung Refika Aditama.
- Koestoer, Raldi H. 1995 . *Perspektif Lingkungan Desa Kota Teori dan Kasus*, Jakarta : UI Press
- Marwasta, D. 2001. *Perkembangan Permukiman Kumuh di Kota Yogyakarta Tahun 1970-2000*. Tesis. Universitas Gadjah Mada. Yogyakarta
- Sarwono, Solita, 2004 : *Sosiologi Kesehatan : Beberapa Komsep dan Aplikasinya*, Yogyakarta: Gadjah Mada University Press
- Singarimbun, Masri dan Sofyan Efendy, 1987. *Metode Penelitian Survey*. Jakarta : LP3ES
- Sumunar, D.R.S.2000. *Kajian Kualitas Lingkungan dan Kondisi Sosial Ekonomi Penghuni di Kota Yogyakarta dengan Teknik Penginderaan Jauh dan Sistem Informasi Geografis*. Tesis. Universitas Gadjah Mada. Yogyakarta
- Yusuf, A.A. 2004. *Kajian Kualitas Lingkungan Permukiman Kota di Kelurahan Kiduldalem dan Bandulan Kota Malang*. Tesis. Universitas Gadjah Mada. Yogyakarta