BELIA 8 (2) (2019)

EARLY CHILDHOOD EDUCATION PAPERS (BELIA)

http://journal.unnes.ac.id/sju/index.php/belia

THE INFLUENCE OF ENVIRONMENTAL SANITATION ON CLEAN AND HEALTHY LIVING BEHAVIOR (PHBS) OF CHILDREN AGED 4-6 YEARS

Aulia Tri Astuti✉, Rina Windiarti

Jurusan Pendidikan Anak Usia Dini, Fakultas Ilmu Pendidikan, Universitas Negeri Semarang, Indonesia

Info Artikel

Sejarah Artikel:
Received September 2019
Accepted October 2019
Published November 2019

Keywords:
Early Childhood, Environmental Sanitation, children

Abstract

This study aims to determine whether there is an influence of environmental sanitation on clean and healthy living behavior (PHBS) of children aged 4-6 years in RW 3 Kampung Pelangi. This research is a quantitative research with a type of survey research and quantitative descriptive design, as well as a questionnaire as a measurement tool. The population of this study is 48 children aged 4-6 years in RW 3 Kampung Pelangi, Randusari Village, in South Semarang District. Sampling is taken with a Nonprobability Sampling-Purposive Sampling technique of 32 children. Analysis of the data is simple linear regression analysis. The results show that based on the results of data from the Coefficients table as the output of a simple linear regression analysis, the R Square value is 0.374. Thus it means that environmental sanitation had a contribution of 37.4% in clean and healthy living behavior (PHBS) of children aged 4-6 years in RW 3 Kampung Pelangi, while the other 62.6% is explained by other variables not examined. The conclusion of this study is that there is an influence between environmental sanitation and healthy living behaviors in children aged 4-6 years in Kampung Pelangi, Randusari Village, South Semarang District, Semarang City. This is evidenced by the significance value of 0.00, which means 0.00 < 0.05. Suggestions related to this research are the efforts to cleanliness and personal and environmental health for children should be intensified, especially the community members as household organizers through socialization, counseling, or other health promotion activities so that they are aware, aware, able, and willing to be improved and maintaining environmental sanitation followed by PHBS.

✉ Alamat korespondensi:
Gedung A3 Lantai 1 FIP Unnes
Kampus Sekaran, Gunungpati, Semarang, 50229
E-mail: auliatriastuti040@gmail.com

p-ISSN 2252-6382
e-ISSN 2686-3375

INTRODUCTION

Health is a blessing from God that is priceless to humans. This relates to personal health and the environment which needs to be an effort to maintain, care for, and improve. The environment has a major contribution to health status followed by behavior, such behavior includes health promotion and maintenance, disease prevention, health service systems, and sanitarians (Kasnodihardjo and Elsi, 2013: 415). Regarding human health, the main requirements for health success are improving one's health status (Mukminin and Arso, 2015: 58). The basic health is aimed at realizing health status because health is everyone's need, including early childhood.

Relating to influencing factors that affect public health are heredity, environment, behavior, and community service (Notoatmodjo, 2010: 24-25). Moreover, the occurrence of environmental impacts caused by human activity interventions result in public health problems. This requires environmental management with environmental sanitation. Based on WHO (in Ferdiansyah, 2016: 21), environmental sanitation is an effort or an effort to control all physical environmental factors that may cause interference and endurance of one's life. According to Ekong (2015: 592) inadequate environmental sanitation is recognized as a public health hazard throughout the world, especially children. Sanitation refers to health conditions with nursing the surrounding environment which is an important component.

In connection with Kampung Pelangi, it started from a village which incidentally is a slum area and is not neatly arranged, and then it is turned into an attractive settlement area in terms of clean and organized environmental sanitation. This village is originally a densely populated area and a slum in the midst of urban development, which became one of the main target points of attention of the City Government to address the fulfillment of basic needs primarily to improve the quality of environmental requirements. Kampung Pelangi environmental management is developed and empowered through the Semarang Thematic Village Program. This program has been initiated since 2016 and is realized in 2017. The Semarang City Government Project spent billions of rupiah to change the face of the village to become more organized and attractive with colorful paints.

Based on the Minister of Health Circular Number 132 of 2013 concerning the implementation of STBM (Community Based Total Sanitation), the Semarang City area refers to the five STBM pillars which include a) ODF (Open Defecation Free) or stopping open defecation, b) washing hands with soap (CTPS), c) management of drinking water and household food, d) management of household waste, and e) management of household wastewater. These pillars are the spearhead of success and overall environmental health in Indonesia.

Sanitation management must be balanced with the behavior of protecting the environment that is donet by all elements of society so that a comfortable, clean, and healthy life will continue. One indicator is Clean and Healthy Behavior (PHBS). This program is launched by the Government through the provisions of the Republic of Indonesia's Minister of Health Regulation No. 2269/Menkes/Per/XI/2011 regarding guidelines for PHBS development. PHBS becomes a thing that must be present in every individual because PHBS reflects the behavior of families who live and pay attention to maintaining the health of all family members on the basis of awareness and active role to help themselves and others in the health field (Proverawati and Rahmawati, 2016: 2). PHBS is a behavior related to personal health and the environment and aims to increase knowledge, awareness, ability, and willingness to live clean and healthy for each individual through the development of the PHBS program.

Children as the successor to the nation have full potential for what is in their environment. A child is someone aged 0-8 years that is in the process of growing and developing messages and is very vulnerable to all kinds of diseases. According Nugrahaningtyas (2014: 20) a child is an individual who has a pattern of development, and certain needs, and is different from adults. In connection with PHBS children,

not only the role of parents in unhealthy behavior can cause serious problems such as the threat of infectious diseases. Children's health related to the body is affected by the environment so that it can be safe or vulnerable to disease (Aburaghif in Arifiyanti and Prasetyo, 2018: 118). So, the task of development is learning to develop habits to maintain the body can adapt to the environment and can identify personal hygiene needs and PHBS in order to realize the child's personal health status.

According to WHO (in Mohammed,2018:73), in children under 5 years old, one-third of all diseases are caused by environmental factors. Therefore, it is very important to introduce and familiarize PHBS to children from an early age so that they can improve their knowledge, abilities and willingness to live clean and healthy. Based on the Ministry of National Education in 2012 (Wakhidah, 2014: 39) states that the character of caring for the environment for children can be developed by applying conservation values as an effort to overcome the problem of environmental damage. So the lack of knowledge of children about the current environmental conditions is a problem that must be addressed immediately, providing environmental education for children is expected to increase environmental awareness so that children get knowledge, awareness, attitude abilities, and environmental care behaviors.

In connection with the implementation of household PHBS in Kampung Pelangi, the researcher finds that habits or behaviors include some children still throwing trash everywhere, lack of habit of washing hands with soap or brushing their teeth routinely, lack of parents' role to weigh children in posyandu based on observations and interviews. While environmental sanitation has been improved and the environment is starting to be well organized such as ODF verification, provision of communal latrine assistance, Kalisari River sediment cleaning, extension and routine inspection of mosquito larvae every week, provision of clean water sanitation (drilled wells and PAM), additional amounts trash cans in each alley, the provision of colorful paint in the corners of villages and houses, the expansion of bridges and the construction of supporting poles, the use of rubbish (recycling) to make hangers accessories on every street and alley. Strengthened by the results of a health promotion survey randomly mapping 50 PHBS households in the sub-district of the Pandanaran Health Center, especially in the Randusari Village, from the 16 indicators, it can be concluded that the lowest indicators are brushing, salinakes (health care workers), rubbish, and physical activity.

The purpose of this study is to determine whether there is an influence of environmental sanitation on clean and healthy living behavior (PHBS) of children aged 4-6 years in RW 3 Kampung Pelangi, Randusari Village, South Semarang District, Semarang City. The advantage of this research is seeing the contribution of the influence of independent variables on the dependent variable. This research concerning environmental sanitation to clean and healthy living behavior (PHBS) of children aged 4-6 years, hopes that this research can provide more knowledge to parents and the community about the importance of personal and environmental health especially early childhood.

METHODS

This research is a quantitative descriptive study with a quantitative approach and type of survey research. Descriptive research serves to describe or provide a description of the object under study through sample data or population according to the field by conducting analysis and making conclusions that apply to the public (Handayani, 2016: 67). Related to the type of research, according to Notoatmodjo (2012: 25-26) survey research (non-experimental research) is research without intervening on research subjects (the public), research is carried out not all objects but only taking a portion of the population (sample). This research is located in RW 3 Kampung Pelangi, Randusari Village, South Semarang District, Semarang City, Central Java Province, which isconducted on 2-17 July 2019.

The population in this study is all children aged 4-6 years in RW 3 Kampung Pelangi,

Randusari Village, Semarang Selatan District, Semarang City as many as 43 children with a sample of 32 children. The sample selection uses Nonprobability Sampling with Purposive Sampling technique with certain considerations aimed at making the data obtained representative. Samples are taken based on consideration of age criteria, namely 4-6 years of age and sampling of each RT is 3-5 children. The following are the sample characteristics of the sample based on sex and age:

Table 1. Sample Characteristic Based on Sex

Sex	Frequency	Percentage
Male	13	40,625%
Female	19	59,375%
Total	32	100,00%

Table 1. Sample Characteristic Based on Age

Age	Frequency	Percentage
4-4,11 years	20	62,5%
5-6 years	12	37,5%
Total	32	100,00%

Data collection techniques using research instruments in the form of questionnaire sheets (questionnaires) and the researcher uses other techniques such as interviews, observation, and documentation in order to deepen the preliminary study and obtain relevant data. Sugiyono (2017: 148) states that the research instrument is a research data gathering tool used to measure variables related to natural and social phenomena observed by the researcher in order to produce accurate quantitative data.

The research instrument is used to make measurements with the help of the SPSS Statistics Version 22 program; the measurement scale uses a Likert scale. Based on the form of questionnaire questions in this study are closed questionnaires, because the researcher has provided answer choices for selected respondents. There are four alternative answer choices provided from each question item: Very appropriate (SS), Suitable (S), Less appropriate (KS), and Not suitable (TS). The trial of the instrument is done in RW 4 of Kampung Pelangi, totaling 30 samples. The following is a category scoring table on the research questionnaire (measurement scale) which categorizes into 3 categories:

Table 3. Scoring Category of Class Interval

Interval	Category
95-104	Low
105-114	Moderate
115-124	High

The results of data analysis in this study will be presented in descriptive analysis which will illustrate the summary of research data carried out from the scale of the results of respondents' answers on each variable. This analysis is in the form of statistical data presentation which includes minimum, maximum, mean, standard deviation, number, and interval class.

RESULT AND DISCUSSION

Kampung Pelangi is a thematic village located in Randusari Village, South Semarang District, Semarang City, Central Java Province. It is located behind the Kalisari Flower Market, Semarang. Before it is as popular as today, it was called Kampung Pelangi Wonosari or often known as Kampung Gunung Brintik. This village is located behind the Wonosari flower market. The village consists of 2 RWs, RW 3 and 4, each of which has 10 RTs of ± 40 Ha.

The results of the study will be presented in the form of a descriptive analysis obtained from filling out a questionnaire conducted by 32 parents as respondents in RW 3 Kampung Pelangi. Descriptive analysis illustrates the summary of research data that has been carried out including the mean, minimum, and maximum, the mean, and the amount obtained:

Table 4. Data of Analysis Descriptive Result

Variable	N	Mea	M	M
Environment Sanitation	32	109,41	95	123
PHBS	32	109,88	88	129

Based on the analysis of obtained data on the field, then it is resulted table of variable measurement score category of environment sanitation and PBHS variable in te interval measurement as folllows:

Table 5. The Result of Clas Interval Analysis

Environment Sanitation			
Interval	**Category**	**Frequency**	**Percentage**
95-104	Low	7	21,875%
105-114	Moderate	16	50,000%
115-124	High	9	28,125%
Total		32	100%
PHBS			
Interval	**Category**	**Frequency**	**Percentage**
88-101	Low	6	18,750%
102-115	Moderate	17	53,125%
116-129	High	9	28,125%
Total		32	100%

Based on the table above it can be seen that the interval classes on two variables each amounted to 32 respondents in RW 3 Kampung Pelangi. The variable categorized as environmental sanitation is 7 respondents with an interval score of 95-104 and a percentage of 21.875% while the largest number of respondents is 16 respondents in the medium category with an interval score of 105-114 and the percentage is 50.00%. 9 respondents were in the high category with an interval score of 115-124 a percentage value of 28.125%. Whereas the interval class PHBS variable of children with low category amounted to 6 respondents with an interval score of 88-101 percentage of 18.750%, and the percentage of respondents was 53.125% with the number of 17 respondents categorized as medium with an interval score of 102-115, and 9 respondents were in the high category with a score interval 116-129 percentage value is 28.125%. From these results it can be concluded that from 32 respondents the average score (mean) of each variable, namely environmental sanitation and Clean and Healthy Behavior (PHBS) is in the medium category.

The assumption test results are obtained from calculations using the normality and linearity test. The normality test uses the Kolmogorov-Smirnov Test One-Sample Test with a significant value of 5% (0.05). The basis for decision making is if the significance value > 0.05, then the residual value is normal. The significance value in this study amounted to 0.200 > 0.05, it can be concluded that the residual value is normally distributed. While the basic basis of decision making if the value of Sig. deviation from linearity > 0.05, then there is a linear relationship between the independent variable (independent) with the dependent variable (dependent). Based on the linearity test results from the ANOVA Table, it is known that the Sig. deviation from linearity of 0.535 > 0.05, it can be concluded that there is a linear relationship between Environmental Sanitation with Clean and Healthy Behavior (PHBS) for Children aged 4-6 years in RW 3 Kampung Pelangi.

The goal is to find out the types of data variants (same or different). This study uses the R Square test (R2) as a hypothesis testing tool or inferential test to determine the effect of a treatment, then the R Square test (R2) is conducted. Hypothesis testing in this study uses simple linear regression analysis of one H0 and H1 predictor. This test is assisted by the SPSS version 22 program which can be seen in the Anova table results with the Product Moment Correlation formula to draw the results of the hypothesis. The steps of this test are to formulate hypotheses (H0 and H1), determine the significance level (0.05). The basis of the analysis of decision making is that if the value of sig < 0.05 means that there is an influence between X on Y then H0 is rejected

Based on the Anova table, it can be seen that the significance value is 0.00, meaning 0.00 < 0.05, then H0 is rejected, which means that there is a significant influence between environmental sanitation variables with Healthy and Clean Life Behavior (PHBS) in children aged 4-6 year in Kampung Pelangi.

Tabel 7. Koefesien Determinasi (R2)

R	R Square
0,612	0,374

Based on the table above, it explains the magnitude of the correlation value (R) that is equal to 0.612 and is included in the category of relationships/strong correlations. While the value of R Square (R2/coefficient of determination) is 0.374 which indicates that environmental sanitation has a contribution of 37.4% in Clean and Healthy Behavior (PHBS) of children aged 4-

6 years, while the other 62.6% is explained by other variables not researched.

The meaning of Y = 20.089 + 0.821X from the simple linear equation can be interpreted as a value of 20.089, stating that the consistent value of the PHBS variable is 20.089 and the environmental sanitation regression coefficient (X) of 0.821 states that each increase in environmental sanitation by one unit of the value of trust then PHBS rose by 0.821.

Discussion

The results of the final project entitled "Environmental Sanitation for Clean and Healthy Behavior (PHBS) for Children Aged 4-6 Years at RW 3 Kampung Pelangi, Randusari Village, South Semarang District, Semarang City". Based on the data of the results of research conducted, it produces a simple linear regression equation test, Y = 20.089 + 0.821X. This states that the consistent value of the PHBS variable is 20.089, then the environmental sanitation regression coefficient (X) is 0.821. This means that each increase in environmental sanitation by one unit of the value of its trust, the PHBS will increase by 0.821 so that it can be said that the direction of the arrow influence of variable X (environmental sanitation) on Y (clean and healthy living behavior) is positive. Whereas based on the results of descriptive analysis conducted on 32 children, it showed that the average score of each variable, namely environmental sanitation and PHBS, was in the medium category by looking at the results of the table known that the value of environmental sanitation scale was in the medium category, amounting to 16 respondents with a percentage of 50, 00 while the PHBS scale is in the medium category totaling 17 respondents with a percentage of 53.125%.

The study aims to see whether there is an influence and how much the contribution of the influence of environmental sanitation variables on clean and healthy living behavior (PHBS) of children aged 4-6 years. Based on the results of research conducted obtained that environmental sanitation contributes 37.4%, thus environmental sanitation affects the clean living behavior of children aged 4-6 years. In clean and healthy life behavior (PHBS) children aged 4-6 years in RW 3 Kampung Pelangi, Randusari Village, South Semarang District, Semarang City, while the other 62.6% is explained by other variables not examined.

As the theory by Mubarak (2012: 21) states that factors related to public health problems in general include environmental factors, behavior, people's lifestyle, socioeconomic, and health services. This opinion is known that environmental factors are important in human health needs, especially children, including in this case environmental sanitation. The efforts to clean the environment so as not to interfere with the process of development and growth of children in accordance with stages of age. Bronfenbenner (1979) suggests that the family environment is called a microsystem environment that gives a very strong influence in shaping the child's personality. Whereas attitudes, knowledge, skills, and parenting behaviors are positively influenced by parental education (Smith, et Lestari, 2017: 80).

The scale of environmental sanitation in this study refers to the 5 pillars of Community-Based Total Sanitation (STBM) implemented in the City of Semarang. This reference is based on the Circular of the Minister of Health of the Republic of Indonesia Number 132 of 2013 concerning the implementation of STBM. STBM is an approach to change hygiene and sanitation behavior through the empowerment method that triggers the realization of total sanitation conditions in Indonesia and the achievement of Indonesia's millennium development goals or often referred to as the Millennium Development Goals (MDGs).

Regard to environmental health, according to Kasnodihardjo and Elsi (2013: 415) which states that the environment has a major contribution to the health status followed by human behavior. It can be interpreted that human health in the environment is basically a good environmental condition so that it has a good and positive effect on the realization of maximum health status. This is the role of the government to aggressively conduct health promotion socialization, especially environmental sanitation and clean and healthy living behavior (PHBS).

Clean and Healthy Behavior (PHBS) is a health effort towards healthy behavior through a program launched by the Government based on the provisions in the Regulation of the Minister of Health of the Republic of Indonesia Number 2269/Menkes/Per/XI/2011 concerning guidelines for PHBS guidance. The PHBS scale in this study has 8 indicators out of 16 different types of PHBS indicators adjusted for early childhood, including: weighing under five, balanced

nutrition, washing hands with soap (CTPS), brushing teeth, healthy latrines, disposing of trash in its place, physical activity, eradication of mosquito nests.

Discussing about PHBS, one of the factors that shape and influence a person's behavior is the environment, perception, parenting, and learning process (Wawan in Saptiningsih, et al, 2013: 8). This opinion can be seen that environmental sanitation is very important in helping children implement PHBS. Environmental problems in children are caused by the inability to develop social value systems and lifestyle (Astriayulita, 2017: 42). Adequate environmental sanitation with its implementation can familiarize children with clean and healthy living behavior (PHBS) wherever children are especially at home. parenting is very important because children get the first family experience, including socialization. Age of children who are growing and developing must begin early so that growth and development run optimally. The connection between people around the children is very important to help children implement PHBS. Optimal health growth and development depends on the healthy behavior that he does both at this time until the life of the future child. Naturally in humans have an effort to maintain the existence and life in optimal environmental conditions by manifesting interrelation with one another in various forms of clean and healthy efforts and actions.

In connection with the formulation and expected research objectives, namely to determine whether there is an influence of environmental sanitation on clean and healthy living behavior (PHBS) of children aged 4-6 years in RW 3 Kampung Pelangi. The formulation of the problem presented can be solved based on the results of the research above, it can be seen that there is an influence between environmental sanitation and healthy living behavior in children aged 4-6 years in Kampung Pelangi, Randusari Village, South Semarang District, Semarang City.

CONCLUSION

Based on the results of research and discussion conducted by the researcher, it can be concluded that "There is a significant effect between environmental sanitation variables with Healthy and Clean Behavior (PHBS) in children aged 4-6 years in Kampung Pelangi, Randusari Village, South Semarang District, Semarang city". The significance value of variable X is 0.00 then 0.00 < 0.05, which means that the variable X (environmental sanitation) has an effect on the variable Y (PHBS) with a coefficient value of 0.821. The coefficient of the environmental sanitation variable is positive, so the environmental sanitation variable has a positive effect on the PHBS variable which causes the higher the environmental sanitation variable, the higher the PHBS variable. Environmental sanitation contributes 37.4% to PHBS of children aged 4-6 years, while the other 62.6% is explained by other variables not examined. This conclusion shows that the higher the environmental sanitation, the higher the level of clean and healthy living behavior (PHBS) of children aged 4-6 years, so that children have the awareness and willingness to take PHBS, parents must provide optimal and appropriate environmental sanitation.

REFERENCES

Arifiyanti, N. dan Prasetyo, I. (2018). Personal Hygiene Learning in Preschool Classroom. Indonesian Journal of Early Childhood Education Studies (IJECES), 7(2).

Astriayulita, A. (2017). Implementation Enviromental Education With 2013 Curicuum of Early Cilhood Educatiom (Study Descriptive in PAUD Taman Belia Candi Semarang 2016-2017). Early Childhood Education Papers (BELIA), 6(1).

Ekong, I. E. (2015). An assessment of environmental sanitation in an urban community in Southern Nigeria. Academic Journals, 9(7), 592-599.

Ferdiansyah. (2016). Gambaran Sanitasi Lingkungan, Tempat Penampungan Air dan Keberadaan Jentik Aedes sp. di Kelurahan Balleangin Kecamatan Balocci Kabupaten Pangkep Tahun 2015. Makasar: Repository UIN Alauddin Makassar.

Hardani, A. P. (2016). The Influence of Ethnocentrism Towards The Character Tolerance of The Children 4-6 Years Old in TK Kuncup Melati Semarang. Early Childhood Education Papers (BELIA), 5(2).

Kasnodihardjo, dan Elsi, E. (2013). Deskripsi Sanitasi Lingkungan, Perilaku Ibu, dan Kesehatan Anak. Kesehatan Masyarakat Nasional, 7(9).

Lestari, G. D. (2017). Madurese Migrants Socioculture and Early Childhood Parenting: A Case Study in the Sombo Kampong Sidotopo Sub District Semampir District of Surabaya, East Java, Indonesia. Indonesian Journal of Early Childhood Education Studies (IJECES), 6(2).

Menteri Kesehatan. (2013). Pelaksanaan Sanitasi Total Berbasis Masyarakat (STBM). Jakarta: Surat Edaran Nomor 132 Tahun 2013.

Mohammed, A. (2018). The Factors That Influence the Environmental Sanitation on People's Health in Nigeria. IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT), 12(2).

Mubarak, W. I. (2012). Ilmu Kesehatan Masyarakat: Konsep dan Aplikasi dalam Kebidanan. Jakarta: Salemba Medika.

Mukminin, A. dan Arso, S. P. (2015). The Development of Health Service Program in Indonesian Preschool: Prospect & Challenges. Indonesian Journal of Early Childhood Education Studies (IJECES), 4(1).

Notoat modjo, S. (2007). Kesehatan Masyarakat: Ilmu dan Seni. Jakarta: Rineka Cipta.

Notoatmodjo, S. (2012). Metode Penelitian Kesehatan. Jakarta: Rineka Cipta.

Nugrahaningtyas, R. D. (2014). Perkembangan Sosial-Emosional Anak Usia 4-6 Tahun dI Panti Asuhan Benih Kasih Kabupaten Sragen. Early Childhood Education Papers (BELIA), 3(2).

Proverawati, A. dan Rahmawati, E. (2011). PHBS: Perilaku Hidup Bersih dan Sehat. Yogyakarta: Muha Medika.

Puspitawati, N. dan Sulistyarini. (2013). Sanitasi Lingkungan yang Tidak Baik Mempengaruhi Status Gizi pada Balita. Jurnal STIKES, 6(1).

Sugiyono. (2017). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.

Wakhidah, K. (2014). Pengaruh Penanaman Nilai-nilai Konservasi terhadap Karakter Peduli pada Lingkungan Anak Usia Dini. Early Childhood Education Papers (BELIA), 3(2).

Wijayanti, N. A. (2017). Implementation of Role Playing Method in the Hygiene Hadith Learning Toward Early Children's Healthy Behavior of Group B in Dabin Aggrek Gunungpati Semarang. Early Childhood Education Papers (BELIA), 6(2).