

RELATIONSHIP BETWEEN HEALTH BEHAVIORS AND INCIDENT OF DENGUE FEVER AND DHF IN THE WORKING AREA OF SINGOSARI PEMATANG SIANTAR HEALTH CENTER

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Abstract

The background in this study is that Dengue Hemorrhagic Fever (DHF) is a public health problem in Indonesia, since 1968 the number of cases has tended to increase and its spread has become wider. The incidence of Dengue Hemorrhagic Fever (DHF) in the working area of the Pematang Raya Health Center in 2008 was recorded as many as 91 cases with 2 fatalities. From the data obtained, it is known that there was a significant increase in the incidence of Dengue Hemorrhagic Fever (DHF) from year to year between 2004-2008. The purpose of this study was to determine what health behaviors were associated with the occurrence of Dengue Hemorrhagic Fever (DHF) in the working area of the Pematang Raya Public Health Center. This type of research was an analytic survey study using a case-control approach. The population in this study were Dengue Hemorrhagic Fever sufferers (cases) and not Dengue Hemorrhagic Fever sufferers (controls). A sample of 40 cases and 40 controls were obtained using simple random sampling technique. The instruments used in this study were 1) questionnaires, 2) data on DHF patients at the Pematang Raya Health Center and DKK Kendal. The data for this study were obtained from primary data, in the form of interview results, and secondary data in the form of DHF patients at the Pematang Raya Health Center and DKK Kendal. The data obtained in this study were analyzed using the Chi-square statistical test formula and the determination of the Odds Ratio (OR). From the research results it was found that the significant factors were: cleaning the water reservoir (p value=0.044, OR=2.513), closing the water reservoir (p value 0.002, OR=4.333), draining water reservoirs (p value 0.004, OR=3.857), burying used goods (p value 0.014, OR=3.095), throwing garbage in its place and burning it (p value=0.043, OR=2.538), hanging clothes (p value=0.001, OR=4.896), and use mosquito repellent lotion (p value=0.002, OR=6.000). From the results of the research and discussion, it can be concluded that health behaviors related to the incidence of Dengue Hemorrhagic Fever (DHF) in the 2018 Pematang Raya Health Center work area, namely cleaning water reservoirs, closing water reservoirs, draining water reservoirs, burying used goods, throwing trash in its place and burning it, hanging clothes, and wearing mosquito repellent.

Keywords: Health Behavior, Dengue Hemorrhagic Fever (DHF)

INTRODUCTION

Dengue Hemorrhagic Fever (DHF) is a public health problem in Indonesia, since 1968 the number of cases has tended to increase and the spread has become wider. In various regions in Indonesia (Ministry of Health RI, 2005: 1), this disease is one of the infectious diseases that can cause outbreaks, then in accordance with Law no. 4 of 1984 concerning outbreaks of infectious diseases and Regulation of the Minister of Health no. 560 of 1989, every sufferer, including suspects of DHF, must be reported immediately no later than 24 hours by a health service unit (hospital, health center, polyclinic, medical center, private practice doctor,

The number of DHF cases in Simalungun District based on health data sources from the Simalungun District Health Office in 2018 in Simalungun District reached 903 cases with 23 mortality rates (IR=9.65 and CFR = 2.54%), in 2007 there were 382 cases with 19 mortality rate (IR = 4.13 and CFR 4.97%), in 2006 there were 153 cases with 8

deaths (IR = 1.67 and CFR 5.23%), in 2005 there were 211 cases 3 deaths (IR = 2.33 and CFR = 1.42 %), whereas in 2004 there were 203 cases with 6 deaths (IR 2.26 and CFR 2.95 %). From the data it can be seen that the largest number of cases occurred in 2008 with 903 cases with 23 deaths (Kendal Health Office, 2008).

Behavior is the second largest factor after environmental factors that affect the health of individuals, groups or communities (Soekidjo Notoatmodjo, 2003: 12). From years of experience in the implementation of this education, both in developed and developing countries have experienced various obstacles in order to achieve their goals, namely to realize healthy living behavior for their people. The biggest obstacle felt is the enabling factor from existing research which revealed that even though people's awareness and knowledge about health is high, practice about health or healthy living behavior is still low (Soekidjo Notoatmodjo, 2003: 19).

From a preliminary survey that was conducted on 30 respondents, it was found that 19 respondents (65%) in the working area of the Pematang Raya Health Center did not implement the "3M Plus" program properly, due to a lack of practice regarding health behavior.

Formulation of the problem

The general problem in this research is: Is there a relationship between health behavior and the incidence of DHF in the working area of the Pematang Raya Health Center in 2018?

METHODS

Conceptual framework

The research concept framework is a relationship or connection between one concept to another concept of the problem to be studied (Soekidjo Notoatmodjo, 2002: 43).

Types and Research Design

Based on the objectives, this research is included in explanatory research, namely analyzing the relationship of research variables by testing the formulated hypotheses. The research design used was an analytic survey method with a case control approach, namely an epidemiological study design that studied the relationship between exposure (research factors) and disease by comparing the case group and the control group based on exposure studies (Bhisma Murti, 1997: 110).

RESULTS AND DISCUSSION

The relationship between the habit of cleaning water reservoirs and the incidence of Dengue Hemorrhagic Fever in the work area of the Singosari Pematang Siantar Health Center in 2018

Based on the results of bivariate analysis it is known that the respondents who did not clean the water reservoirs in the case group were 65.0% greater when compared to the control group 42.5%, while the respondents who did not clean the water reservoirs in the case group were 35.0% smaller when compared to the control group 57.5%...

From the results of the statistical test using Chi-square, a p value of 0.044 was obtained because the p value was <0.05, so H_0 was rejected, meaning that there was a

significant relationship between cleaning water reservoirs and the incidence of Dengue Hemorrhagic Fever in the working area of the Pematang Raya Health Center in 2018. Odd Ratio Value (OR) = 2.513 (95% CI = 1.019-6.198), indicating that respondents who do not clean water reservoirs have a 2.513 times greater risk of suffering from DHF than respondents who clean water reservoirs.

Relationship between the Habit of Closing Water Reservoirs and the Incidence of Dengue Hemorrhagic Fever in the Singosari Work Area, Pematangsiantar Health Center in 2018

Based on the results of bivariate analysis it is known that the percentage of respondents who did not close the water reservoirs in the case group was 65.0% greater than the control group which was 30.0%, while the percentage of respondents who closed the water reservoirs in the case group was 35.0% more small when compared to the control group 70.0%

From the results of the statistical test using Chi-square, a p value of 10.002 was obtained because the p value <0.05 then H_0 was rejected, meaning that there was a significant relationship between closing the water reservoirs and the incidence of Dengue Hemorrhagic Fever in the working area of the Pematang Raya Public Health Center in 2018. Odd Value Ratio (OR) = 4.333 (95% CI = 1.696-11.069), indicating that respondents who did not close water reservoirs had a 4.333 times greater risk of suffering from DHF than respondents who closed water reservoirs.

The relationship between the habit of draining water reservoirs and the incidence of Dengue Hemorrhagic Fever in the Work Area of the Singosari Pematangsiantar Health Center in 2018

From the results of bivariate analysis it is known that the respondents who did not drain the water reservoirs in the case group were 65.0% greater when compared to the control group 32.5%, while the respondents who drained the water reservoirs in the case group were 35.0% smaller when compared to the control group 67.5%.

From the results of the statistical test using Chi-square, a p value of 0.004 was obtained because the p value was <0.05 , so H_0 was rejected, meaning that there was a significant relationship between the variable draining the water reservoir and the incidence of Dengue Hemorrhagic Fever in the working area of the Pematang Raya Health Center in 2018. Odd Ratio (OR) = 3.857 (95% CI = 1.526-9.750), indicating that respondents who do not drain water reservoirs have a 3.857 times greater risk of suffering from DHF than respondents who drain water reservoirs.

Relationship between the Habit of Burying Used Goods and the Incidence of Dengue Hemorrhagic Fever in the Working Area of the Singosari Pematang Siantar Health Center in 2018

Based on the results of the research conducted, it was found that the respondents who did not bury used goods in the case group were 65.0% greater than the control group 37.5%, while the respondents who buried used goods in the case group were 35.0% smaller when compared to the control group 62.5%.

From the results of statistical tests using Chi-square, a p value of 0.014 was obtained because the p value <0.05 then H_0 was rejected, meaning that there was a significant relationship between the habit of burying used goods and the incidence of Dengue Hemorrhagic Fever in the working area of the Pematang Raya Public Health

Center, Puskesmas District Pematang Raya Simalungun Regency in 2018. Odd Ratio (OR) = 3.095 (95% CI 1.243-7.706), indicating that respondents who did not bury used goods had a 3.095 times greater risk of suffering from DHF than respondents who buried used goods used.

Relationship between the Habit of Disposing of Garbage in its Place and Burning it with the Incidence of Dengue Hemorrhagic Fever in the Work Area of the Singosari Pematangsiantar Health Center in 2018

From the results of the univariate analysis it was found that the respondents who did not dispose of waste in its place and burned it in the case group were 55.0% greater when compared to the control group 32.5%, while the respondents who disposed of garbage in its place and burned it in the case group were 45.0% smaller when compared to the control group 67.5%.

From the results of statistical tests using Chi-square, a p value of 0.043 was obtained because the p value <0.05 then Ho was rejected, meaning that there was a significant relationship between the habit of throwing garbage in its place and burning it with the incidence of Dengue Hemorrhagic Fever in the working area of the Pematang Raya Health Center in 2018. The Odd Ratio (OR) value is 2.538 (95% CI-1.023-6.298), indicating that respondents who do not dispose of garbage in its place and burn it have a 2.538 times greater risk of suffering from DHF than respondents who throw garbage in its place and burn it.

The Relationship between the Habit of Hanging Clothes and the Incidence of Dengue Hemorrhagic Fever in the Work Area of the Singosari Pematang Siantar Health Center 2018

From the results of univariate analysis it was found that respondents who were not used to hanging clothes in the case group were 27.5% smaller when compared to the control group 65.0%, while respondents who were used to hanging clothes in the case group were 72.5% greater than with the control group 35.0%.

From the results of the statistical test using Chi-square, a p value of 0.001 was obtained because the p value <0.05 then Ho was rejected, meaning that there was a significant relationship between the habit of hanging clothes and the incidence of Dengue Hemorrhagic Fever in the working area of the Pematang Raya Health Center in 2018. Odd Ratio Value (OR) = 4.896 (95% CI = 1.892-12.669), indicating that respondents who usually hang clothes have a 4.896 times greater risk of suffering from DHF than respondents who do not usually hang clothes.

The relationship between the habit of using mosquito nets and the incidence of Dengue Hemorrhagic Fever in the Work Area of the Singosari Pematangsiantar Health Center in 2018

Based on the results of bivariate analysis it is known that respondents who did not use mosquito nets in the case group were 75.0% larger than the control group 72.5%, while respondents who used mosquito nets in the case group were 25.0% smaller than the control group 27.5%.

From the results of the statistical test using Chi-square, a p value of 0.799 was obtained because the p value was > 0.05, so Ho was accepted, meaning that there was no significant relationship between the habit of using mosquito nets and the incidence of Dengue Hemorrhagic Fever in the working area of the Pematang Raya Health Center in

2018. Odd Ratio (OR) = 1.138 (95% CI = 0.420-3.084), indicating that respondents who do not use mosquito nets have a 1.138 times greater risk of suffering from DHF than respondents who use mosquito nets while sleeping but because 95% CI includes number 1, the variable Not using mosquito nets is not necessarily a risk factor for DHF.

The Relationship between the Habit of Using Anti-Mosquito Lotion and the Incidence of Dengue Hemorrhagic Fever in the Work Area of the Singosari Pematang Siantar Health Center in 2018

Based on the results of univariate analysis it was found that respondents who did not use mosquito repellent lotion in the case group were 90.0% greater than the control group 60.0%, while respondents who used mosquito repellent lotion in the case group were 10% smaller when compared to control group 40.0%

From the results of the statistical test using Chi-square, a p value of 0.002 was obtained because the p value <0.05 then Ho was rejected, meaning that there was a significant relationship between the variable habit of using anti-mosquito lotion and the incidence of Dengue Hemorrhagic Fever in the working area of the Pematang Raya Health Center in 2018. Odd Ratio (OR) 6,000 (95% CT=1,787-20,147), indicating that respondents who did not use anti-mosquito lotion had a 6,000 times greater risk of suffering from DHF than respondents who used anti-mosquito lotion.

Relationship between the Habit of Sowing Abate Powder in Water Reservoirs and the Incidence of Dengue Hemorrhagic Fever in the Working Area of the Singosari Pematang Siantar Health Center in 2018

Based on the results of univariate analysis it was found that the respondents who did not sow Abate powder in the water reservoirs in the case group were 77.5% greater than the control group 72.5%, while the respondents who sowed Abate powder in the water reservoirs in the case group were 22.5% smaller than the control group 27.5%.

Relationship Between Habits of Raising Larvae-eating Fish and Dengue Hemorrhagic Fever in the Work Area of the Singosari Pematangsiantar Health Center in 2018

Based on the results of univariate analysis it was found that respondents who did not raise larvae-eating fish in the case group were 82.5% larger than the control group 80.0%, while respondents who raised larvae-eating fish in the case group were 17.5% smaller than with the control group 20.0%.

From the results of statistical tests using Chi-square, a p value of 0.775 was obtained because p value > 0.05 then Ho was accepted, meaning that there was no significant relationship between the habit of raising larvae-eating fish and the incidence of Dengue Hemorrhagic Fever in the working area of the Pematang Raya Public Health Center, Puskesmas District Pematang Raya Kendal Regency in 2018. Odd Ratio (OR) = 1.179 (95% CI = 0.383-3.630), indicating that respondents who do not raise larvae-eating fish have a 1.179 times greater risk of suffering from DHF than respondents who raise larvae-eating fish but because 95% CI includes the number 1, the variable not keeping larvae-eating fish is not necessarily a risk factor for DHF.

CLOSING

Conclusion

Based on the results of this study it can be concluded as follows:

1. There is a relationship between cleaning water reservoirs, closing water reservoirs, draining water reservoirs, burying used goods, throwing garbage in its place and burning it, hanging clothes, and wearing mosquito repellent lotion with the Incidence of Dengue Hemorrhagic Fever (DHF) in the Work Area of the Health Center singosari Pematang Siantar in 2018
2. There is no relationship between using mosquito nets, sowing Abate powder, and raising larvae-eating fish with the Incidence of Dengue Hemorrhagic Fever (DHF) in the Working Area of the Singosari Pematang Siantar Health Center in 2018

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