



INFLUENCES OF HEALTH PROMOTION AND MOTIVATION TOWARDS CLEAN AND HEALTHY BEHAVIOR (PHBS) ON HOUSEHOLD ORDERS IN DEPOK

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Abstract

Clean and healthy lifestyle is human's basic way of preventing various diseases. Remembering the impacts of behaviour on health is quite large, it would require many efforts to change unhealthy behaviour into the healthy one. One of the programs is Clean and Healthy Behaviour (Perilous Hid up Bearish Dan Seat; PHBS). The aim of this research is to discover the direct and indirect effects as well as the amount of health promotion and motivation towards this program in Depot City. The method used in this research is through cross-sectional design. The number of samples is taken directly from the objects, as many as 65 households. The analysis method used is Structural Equation Model (SEM) using Smart PLS 2.0 and SPSS 17. The result of hypothesis examination with Structural Equation Model (SEM) is through Structural Equation Model (SEM) with Smart PLS method shows the direct impact of health promotion on PHBS taking up by 32.6%. The direct impact of motivation towards PHBS in households is by 28.4%. Meanwhile, other factors that are not observed affecting the variable of PHBS is by 29.8%. A suggestion for the centre of public health is to increase training programs for communities of Depot regarding clean and healthy lifestyle (PHBS) in order to upgrade the knowledge and understanding of PHBS.

Key Words: Health Promotion, Motivation, PHBS.

Introduction

The emersion of various diseases that often attack society: adults and children aged 6 to 12 years old is commonly related to PHBS. Therefore, instilling PHBS values to environment is an absolute necessity to take care of, increase, and protect families. Diarrheal, respiratory infection, dengue fever and malaria are types of diseases that easily attack children because of their unhealthy lifestyle.

Every year, 100.000 Indonesian children pass away because of diarrheal. The diseases endured by elementary students involving behaviour, such as intestinal worms 50- 60%, anaemia 23.2%, caries and periodontal 74.4%. The effect of unhealthy behaviour can also cause more serious problems like a threat of contagious diseases in society because the surrounding is the location of the transmission source of infectious diseases.

The degree of PHBS success in Indonesia is considered minimum. Result of National Health Survey shows that: (1) The scope of birth assistance by health workers is by 64% with the national target 90%; (2) Babies given exclusive breast milk is by 39.5% with the national target

80%; (3) The scope of JKPM reaches up to 19% with the national target 80%; (4) Types of water sources that are widely used is the protected well water by

35% and clean water availability is by 81% with the national target 85%; (5) The percentage of households using healthy latrines is 49% with the national target 80%; (6) The suitability of floor area with the number of inhabitants is by 35% with the national target 80%; (7) House floors that are not soil floor is by 35% with the national target 80%;

(8) Only 36% of Indonesians do not smoke inside house; (9) Only 18% of the population has physical activities; (10) Only 16% eat fruit and vegetable every day.

The promotion effort of health is conducted by Puskesmas because Puskesmas is the basic health institution that gives primary health service to community through cadre empowerment of health, public figures, and cross-sect oral in order to promote various health programs, including PHBS. Puskesmas the direct liaison between governor programs and society, and through health promotion of society empowerment conducted to improve their motivation in achieving physic and social changes by organizational activities and joint attempts.

The prominence towards prevention and promotion of health is inseparable from problems of diseases triggered by behaviour and lifestyle changes as the causes of the rapid development during globalization. Due to the complexity of health problems, the refinement is not only done through the health service, but also by improving the environment and factor of population or heredity. However, behavioural factors that have big roles in the emersion of health problems need to be monitored.

The low scope of PHBS is caused by minimum society empowerment, limited cost of PHBS, less motivation from cross-sect oral towards PHBS program. To solve health problem faced by inhabitants, there are 2 important capabilities that must be mastered: skill of managing society and skill to plan a promotional program of health. Health promotion has advantages to change behaviour of society. Behaviour is the reaction of individuals towards stimulus coming from outside or inside himself. The responds can be passive (thinking, giving opinion, behaving) and active (doing actions).

According to the data of Depot, until now, 47% inhabitants are estimated having less motivation for healthy and clean lifestyle. Of the percentage, more inhabitants are still defecating anywhere, some are defecating in rivers, farms, fields, ponds, and other open places. Such behaviour is obviously disadvantageous the health of the population, for faces is known as a media of coli bacteria which potentially triggers diarrheal. In 2010, 423 of 1000 inhabitants were affected by diarrheal with the mortality rate by 2.52%.

Many reasons are used by society to defecate carelessly, such as assumption of having latrines considered pricey, feeling of comfort to defecate in rivers, faces to feed fish, and others that have become habits since long time ago: since childhood, ancestor period, and up to now, there has been no disease problem. Those reasons and habits have to be changed, for those habits do not support clean and healthy lifestyle that will enlarge health issues. On the other hand, if society behaves hygienically, by defecating in proper places; precise to health principle, such action will prevent and decline issues of contagious diseases. In case of diarrheal, for instance, by improving the access to basic sanitation, this disease will not probably happen, by 32%.

One of sub-districts that has low scope of applying PHBS in Depot is Baja (ranked 15 of 17 sub-districts) with these indicators; birth help by health workers: doctors (10.26%) and midwives

(87.18%); babies consuming exclusive breast milk (27.27%); having Health Insurance by 32.43%; clean water availability by 45.2%; hygiene latrines by 64.59%; and residents smoking inside house by 98.20%; consuming fruit routinely by 34.34%; and having moderate activities every day by 29.11%.

The strategy of promoting health of PHBS conducted by Depot Health Office is financed with relatively limited fund because the proportion of new health budget reaches 6.2% of the total of APBD, which is still far from the target 15% from APBD based on Ministry of Health of Republic of Indonesia. The practice of PHBS also receives supports from non-governmental organizations with Health Service Program (HSP), in programs like hand-washing with soap. Nevertheless, all these actions have not reached the target of PHBS.

The purpose of this research is to find out the direct and indirect influences as well as the amount of health promotion and motivation towards Clean and Healthy Behaviour (Perilous Hid up Bearish Seat; PHBS) on household orders in Depot.

Method.

This research uses cross-sectional design because the prevalence of the problems is quite large, so cross-sectional study is more suitable than case control. This research does not use samples, for all population is used as the respondents. The minimum number of sample of the respondents involves 65 inhabitants of Depot sub-districts, who are taken directly by the researchers. The number of the samples are taken equally with the number of sample principle in the PLS (Partial Least Squares) guidelines, in which the sample scale is about 5 to 10, the multiple of the total of the indicator to be studied. Hence, the number of samples is still in the range of 45 to 90.

The reason of choosing Depot for this research is that this research do not spread to several areas which are considered not suitable with the requirements wished by the researchers. For the purposes of this study, respondents are elected by engaging all population in Depok with; (1) Inclusion Criteria: respondents who have married, aged above 21 years old and live in Depok; (2) Exclusion Criteria: Inclusion criteria that are excluded from inclusion criteria because of certain conditions. Such situation happens if a resident suddenly cannot come because of something and moving to other region. The type of data in this research is obtained from qualitative data. Quantitative data or data served in numbers or qualitative data converted into numbers is obtained from the calculation of questionnaire score consisting of 5 alternative answers, which is Semantic Differential.

The method of the analysis used in this research is univariate analysis, vicariate analysis, and SEM analysis (Structural Equation Modelling). Univariate analysis is an analysis that describes independent (health and motivation promotion) and dependent variables singularly in a form of frequency distribution. Vicariate analysis is an analysis that is conducted to know the presence or absence of health promotional influences towards PHBS using Chi Square test. The path of SEM diagram functions to depict the pattern of relationship within variables to be observed. On SEM, the pattern of relationship within variables will be fulfilled of variables that are observed, latent variables, and indicators. The indicators of PHBS success itself are birth assistance, clean water availability, and hygiene latrine availability. The indicators of health promotion are development, communication media, and partnership. Meanwhile, the indicators of motivation involve factors of reward, working condition, and responsibility.

The research data will be presented in the form of; (1) presentation of composition and frequency from samples. The data displayed at the beginning of the analysis result is a

description of the samples, in which the explanation and summary are presented in tables from main description. It is conducted to help readers recognize more the characteristics of the respondents. (2) The presentation of SEM analysis. The data of this analysis is from output data processing which uses SPSS 17.0 and Smart PLS 2.0, and the data is presented in diagram, table, and others. More complete data presentation will be given in an attachment along with the questionnaires. The test of the hypothesis is based on the result of data processing.

Result

The presentation of the result is arranged based on SEM analysis (Structural

Equation Modelling) in order to define the complex relation of several variables tested in this research, so the use of multivariate method is not satisfying to apply.

The total of the respondents are up to 65 citizens. The following justification involves 5 aspects, which are respondents' age, education, and occupation. Out of 65 respondents, the last education level of the respondents is mostly junior high school by 43 respondents or 66.2%, 10 respondents (15.4%) are graduates of senior high school, and others, elementary graduates are 8 inhabitants or 12.3%. On the other hand, female respondents are greater (61.5%) than male respondents (38.5%). Greater number of female respondents compared with males are caused by: (1) this research does not limit the respondents depending on their gender, and (2) the research activity is conducted from morning to afternoon, therefore more women are home compared with men.

According to the age group, their age ranges from 20 to 50 years old. The category of age 20-30 is the greatest number, as many as 35 respondents or 53.8%. Meanwhile, only 2 respondents coming from the least number of age group, who are aged 61 years old by 6.2%. In the case of occupation, most of the respondents are housewives by 38 residents or 58.5%. On the other hand, the occupation with the least number of respondents is farmer by 3 respondents (4.6%).

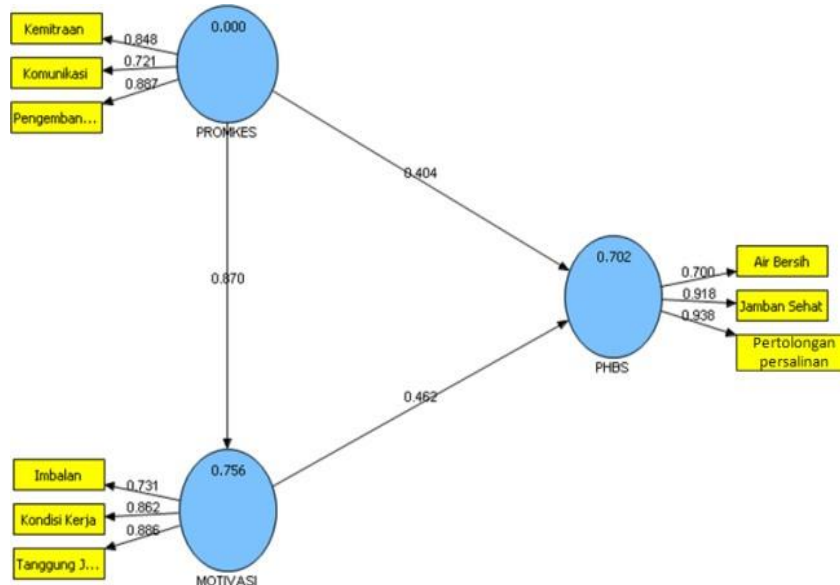


Figure 1. Evaluation of Inner Model

In agreement with Figure 1, there is seen that the value of loading factors has fulfilled the specification, which is greater than 0.5. The result of outer model evaluation

Consists of the value of loading factors (convergent validity), discriminate validity of cross loading, the AVE square root, and the value of composite reliability.

The result of data analysis processing, there is seen that the constructs are used to shape a research model. In the process of confirmatory factor analysis, it has fulfilled the criteria of goodness of fit which has been set. The probability on this analysis shows the value above significance limit is 0.05. With this result, it can be stated that the indicators of formers of latent construct variables engage health promotion, motivation, and PHBS that has shown a great result.

Based on the PLS output, the result of square root of all constructs is greater than the correlation within constructs. The AVE value of all constructs is richer or close to 0.5, thereby it can be concluded that the evaluation of the model measurement has a great discriminate validity. The value of Cranach's Alpha and Composite Reliability mostly is higher than 0.7, so it can be stated that all constructs: health promotion, motivation, and PHBS have a great reliability. The result of significance evaluation of outer model is regulated in PLS output by evaluating the reflection of the indicators of the T-Statistic value towards the variables.

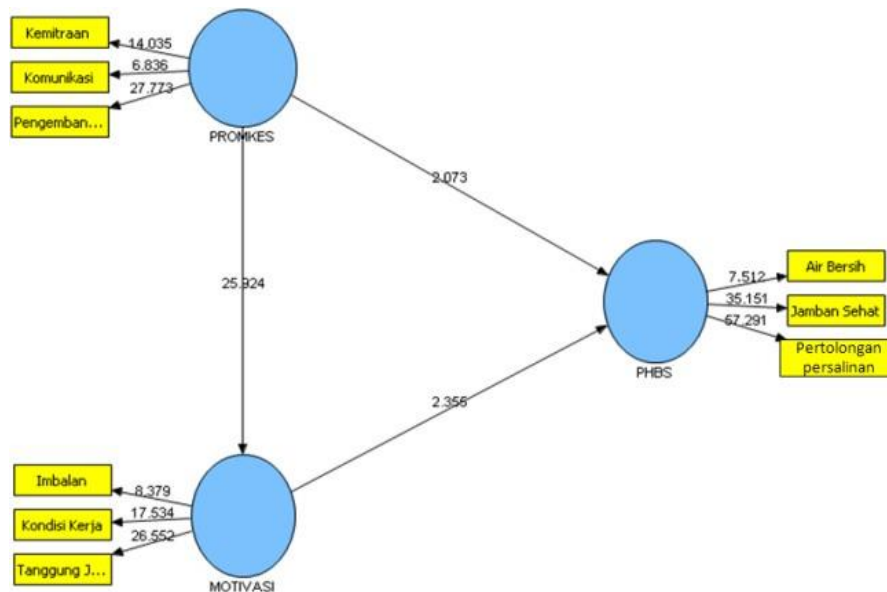


Figure 2. Evaluation of Outer Model (T Statistics)

The value of Q-Square Predictive Relevance runs to assess the amount of diversity or variation of research data towards the phenomenon being studied and the following is the result:

Table 1. Evaluation of R Square value

Test results	
Variabel	R Square

Health Promotion (ξ_1)	
Motivation (η_2)	0.756389
PHBS (η_1)	0.701795

Slumber: Smart PLS 2.0

According to table 1, health promotion contributes on motivation by 0.756, and it contributes on PHBS by 0.702. The result of R Square claims that health promotion is able to define the variable of motivation by 75.6% and 24.4% is influenced by other factors that are not studied. However, the variability of PHBS constellation can be explained by health promotion variability by 70.2%, and 29.8% is explained by other variables that are not studied.

Figure 2 depicts that the result of examination on the parameter coefficient of health promotion towards PHBS shows the existence of positive effect by 0.404, whereas the value of T-Statistic is by 2.073 and its significance is at $\alpha = 5\%$. Its T-Statistic result is above the critical value (1.96). The result of the test towards parameter coefficient of motivation towards PHBS illustrates that there is a positive influence by 0.462, whereas the T-Statistic value is by 2.356, and its significance is at $\alpha = 5\%$. It is far above critical value (1.96).

Health promotion influences both directly and indirectly towards PHBS. The result of the test towards parameter coefficient of health promotion towards PHBS shows the direct influence by 32.6%, whereas the indirect influences on PHBS through motivation is obtained by multiplying the coefficient path (Motivation \square Health promotion) with the coefficient path (motivation \square PHBS), therefore it results 0.284 or 28.4%. The calculation of direct and indirect impacts is shown on table 2.

$$\eta_1 = \xi_1 \gamma_1 + \zeta_1$$

$$\text{Motivation} = 0,870 \text{ Health Promotion} + 0,244 \text{ other factors}$$

$$\eta_2 = \xi_1 \gamma_2 + \eta_1 \beta + \zeta_2$$

$$\text{PHBS} = 0,404 \text{ Health Promotion} + 0,462 \text{ Motivation} + 0,298 \text{ other factors}$$

Table 2. Percentage of Influence among Variables on PHBS Model

Source	LV Correlation	Direct Rho	Indirect Rho	Total	Direct %	Indirect %	Total %
Health promotion	0.806043	0.404	0.402	0.806	32.6%	28.4%	61.0%
Motivation	0.813669	0.462	0	0.462	37.6%	0.0%	37.6%
Total					70.2%	28.4%	

The variable of motivation displays the direct and indirect influences on PHBS. The result of its coefficient parameter test of motivation on PHBS tells there is direct effect by 37.6%. Hence, the value of each direct influence of the latent independent variable, if it collectively shows compatibility with R –Square value, or, in other words, states that health promotion and motivation can explain PHBS variable by $(32.6\%+37.6\%) = 70.2\%$.

Therefore, by the analysis above, it can create mathematical equation from PHBS variable as follows:

$$\eta_1 = \xi_1 \gamma_1 + \zeta_1$$

$$\text{Motivation} = 0,870 \text{ Health promotion} + 0,244 \text{ other factors}$$

$$\eta_2 = \xi_1 \gamma_2 + \eta_1 \beta + \zeta_2$$

$$\text{PHBS} = 0,404 \text{ health promotion} + 0,462 \text{ motivation} + 0,298 \text{ other factors}$$

The value of Q-Square functions to assess the amount of diversity or variation data on phenomenon being observed, and the following is the result:

$$Q^2 = 1 - (1 - R^2)$$

$$= 1 - (1 - 0,702)(1 - 0) = 0,702 \text{ or } 70.2\%$$

$$\text{Galati Model} = 100\% - 70.2\% = 29.8\%$$

This case shows that the model of the analysis can explain 70.2% of data diversity and review the phenomenon used in the research, whereas 29.8% is explained by other components that are not observed.

Discussion

Research of influences of health research and motivation towards PHBS in households in Depot, of course, has limitations. In this research, the respondent selection is finite on the society of sub-district in Depot and the workers of Puskesmas Depot, therefore all activities of health promotion and PHBS are not calculated. This research only focuses on 65 residents and workers in every section, so the research samples become very limited and inadequate.

This research also uses tested instrument that excels on validity and reliability is not that great, so there are items of questions in the instrument that are eliminated. Data collection using questionnaires is subjective, so that data validity depends on respondents' honesty while answering questions. The data collection initially uses random sampling, but the time is limited, so researchers obtain the data through purposive sampling, which collects the data depending on employees with requirements of research criteria.

This research is conducted in at certain times (cross sectional) and through questionnaires based on respondents' perception and score, hence it is difficult to see the employees' behaviour in a long time span as well as see the truth of the answers from the respondents.

Influence between Health Promotion Against Clean and Healthy Behaviour (PHBS) On Household Order.

According to the three indicators on the variables of health promotion, all indicators are able to define the variables of health promotion: development, communication media, and partnership. This issue proves the theory which says that strategy of health promotion is affected by factors of education, development, communication media, environment, regulation, and mechanism of organizations that motivate actions and condition of conducive life for health of individuals, communities, and society.

This result also proves other researches, which claim that environment, development, education, and health promotion can give significantly contributively influences on the

increase of clean and healthy lifestyle (PHBS). The same thing is also verified by researchers that health promotion leaves impacts on the increase of PHBS. The more often health workers conduct environmental health promotion, the faster the behavioural change towards clean and healthy lifestyle (PHBS). So are other researchers, they claim that the most dominant factors that trigger changes on PHBS are health promotion, motivation and knowledge.

Development indicator has the highest level of significance among other indicators on health promotion; therefore it is worth to get intervention as expected for the workers to improve health promotions on the increase of PHBS appliance in household orders. The result of this research shows that there are positive impacts from health promotion towards PHBS. Hence, if health promotion is improved, it can also upgrade PHBS in households, directly or indirectly through motivation. Otherwise, if health promotion declines, it can also downgrade PHBS, directly or indirectly.

The author analyzes that the strategy of health promotion sticks to media, for the messages delivered to audiences are more interesting and easy to understand, then the targets can learn the messages until they settle to adopt positive behaviour heading to PHBS, who initially have an unclean and unhealthy life becoming interested to implement a clean and healthy lifestyle (PHBS).

Influence between Motivation Against Clean and Healthy Behaviour (PHBS) In Household Order

According to the three indicators owned by the variable of motivation, all indicators can define the variables of motivation, which are rewards, responsibility, and working condition. This thing confirms a theory which states that motivation is affected by two factors: intrinsic (one of which is achievement) and extrinsic (instances are responsibility and rewards). The result also proves other researches involving work achievements, responsibility, rewards, influences, control, dependency, expansion and development are the dimensions of motivation measurement that can contribute on significant influences towards the improvement of PHBS in household orders. The more often the workers give motivation to society, the faster the behavioural changes appear to have a clean and healthy lifestyle (PHBS).

In analyzing this research, a person behaves to achieve a great PHBS lifestyle because there is motivation from inside him (internal) and outside (external). The motivation coming from him is the emergence of confidence in doing an activity caused by the capability this person has. On the other hand, the external motivation emerges because of the influences of knowledge, for instance, society that always keeps clean, healthy, not smoking, and others, or it is possible that the motivation appears because of the combination of those two things. In other words, the three indicators (working condition, responsibility, and rewards) of motivation are the measures to achieve a better PHBS lifestyle.

The reward indicator has the highest significant level among other indicators in motivation; hence it deserves to get intervention as expected by citizens of Depot to increase the motivation on PHBS.

The result shows that there are positive influences of motivation towards PHBS in household orders. Thereby, if the motivation of Depot citizens is upgraded, then it can also improve PHBS, directly and indirectly, through health promotion of Depot officials, vice versa. If motivation declines, it can also downgrade PHBS directly and indirectly.

The author analyzes that the improvement of PHBS sticks to the willing and the encouragement of Depot residents, one of which is achievements on the condition of its

environment or outside its environment. Besides, the two extrinsic factors (responsibility and reward) are important factors as well in order to improve PHBS in household orders at Puskesmas of Depot.

The results of hypothesis test using Structural Equation Model (SEM) with the method Smart PLS show that (1) direct influence on health promotion towards PHBS is by 32.6%. Direct influences on motivation towards PHBS as much as 37.6%. (2) Indirect influence on health promotion towards PHBS through motivation is by 37.6%. (3) The variables of PHBS in household orders in Depot are directly affected by several variables, for instance, health promotion (32.6%) and motivation (37.6%). On the other hand, other factors that are not examined affecting PHBS variables is by 29.8%.

Conclusion

The conclusion of this research is that the variable of PHBS in household orders is influenced by several variables involving health promotion and motivation of Depot inhabitants. Therefore, health promotion and motivation are two measures that can be used in determining the acceleration of PHBS increase in the community of Depot. The improvement of PHBS should be supported by the increase of social supports to Depok residents, such as understanding of PHBS about clean water utilization, birth help, and hygiene latrines.

Suggestion

Based on the limitation in this research, the suggestions for the next research are:

Health officials have to be well competence to be health promoters, complete health facilities (Puskesmas assistances and Polices) and effective and efficient communication media. For instance, a car that provides audio-visual media to deliver messages about health, not only PHBS. (2) In order to improve PHBS, it is necessary to increase the role of village in succeeding espionage activities of health based on PHBS and other activities related to health and social, hence it can increase inhabitants' motivation to maintain health and prevent misinterpretation saying that health only involves medicines instead of preventions of getting ill. (3) Depot is expected to pay more attention and provide espionages discussing the importance of clean and healthy lifestyle in households, whether the activities are conducted in Puskesmas or society's residence, and organize more educational programs based on health towards society in order to improve health rate optimally in Depot.

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