ORIGINAL ARTICLE

Evaluation of Family Centered Indonesia Health Program by Using the Kirkpatrick Model on Families in South Sempaja Region Samarinda of East Borneo Province of Indonesia

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ABSTRACT

Introduction: The family centred Indonesia health program is a program established by the government to improve the health status and nutritional status of the community through health efforts and community empowerment. Indonesian This initiative was examined by the Ministry of Health, and the coverage percentage was still relatively low at 24.3 percent. East Kalimantan Province had one of the lowest data collecting coverage rates in the country, at 11.7 percent, and a healthy family index is 26.42 percent. The purpose of this study is to evaluate family centred Indonesia health program using the Kirkpatrick model among families in Sempajaselatan district Samarinda City East Borneo Indonesia. **Methods:** This study used a quantitative method with a retrospective design for the evaluation of the Family-centered Indonesia health program with a Kirkpatric model approach to see family independence as an outcome. A cross-sectional design is used to measure family independence. **Results:** The results showed that 54% of families had moderate reactions, 53.8% of families had moderate learning, 50.4% of families had moderate behaviour, and 48.7% of families had moderate results, and 54% of families had a level of independence. The bivariate test showed that there was a significant relationship between reactions, learning, behaviour, and outcomes with family independence at the Puskesmas Sempaja sub-district, South Kalimantan, East Indonesia. The factor that has the biggest influence on family independence is the reaction variable. **Conclusion:** These suggestions and findings are to increase more intensive promotions both through online media and direct independent promotion activities.

Keywords: Evaluation, Kirkpatrick Model, Indonesia Health Program

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INTRODUCTION

The world confronts many challenges and conversations where mother and child are the top priority. Among all these, another challenge is the regulation of clean air access for all. According to WHO between 2016 and 2000, changes in the pattern of diseases from communicable diseases to non-communicable diseases increased by 8% globally and increased status of universal health coverage for critical health services was inadequate in developing countries (1). To improve public health the United States launched the Health People 2020 program that was oriented towards health transition and promotion (2). Inspired by the program, Indonesia has taken significant steps towards health improvement, in which the country has launched Healthy Indonesia 2025 program which is a medium-term vision of Indonesia.

World Economic Forum 2018 publication shows that the potential loss due to non-communicable diseases in Indonesia during the 2012-2030 period is predicted to reach USD 4.47 Trillion or 5.1 times GDP in 2012 (3). One strategy in solving health problems is to strengthen the health system, reduce maintenance Health expenditures, and increase accessibility to clean water and environmental sanitation. These are the important factors that need consideration for good health (4).

The Indonesian government launched the family-centred health initiative to improve the community's health and nutritional status through health activities and community empowerment. Accordingly, family centred Indonesia health program has established twelve prominent indicators as markers of the health status of a family, (5). The Family-centred Indonesia health program (IHP) has been implemented throughout Indonesia between 2015 and 2019, where the implementation was based on Law No. 36/2009 on Health and was focused on improving the health status of the community. Government public health focuses on 2015-2019 health was focused to strengthen primary health care.

Activities in the family centred Indonesia health program stage are integrated into Public-Health Centre management steps that include planning, organizing implementing and controlling assessment. the initial activity is to collect data assisted by Integrated Health Service's Volunteers. After that all data are input are done into the Public Health Centre of information system, existing results analyzed to intervene health problems by way of counselling, home visits in the context of family coaching are carried out through health education and individual counselling along with professional services (in buildings and outside buildings), by technical/ professional staff.

The Indonesian Health Research and Development Agency has conducted an Evaluation Study of the implementation of a family-centred Indonesia health program in several districts/cities in Indonesia; to gain information on the extent to which the data collection at the district/city level can run. However, the implementation of the program in providing policies obtain some fundamental obstacles such as human resources, the communication of the implementers, and the absence of a decision letter and roadmap for implementing policies at the Public Health Centre (Puskesmas) level, and have not reached the national target of 80% (6). In 2018 the Indonesian Ministry of Health evaluated the coverage of this family centred Indonesian health program and the collection of healthy families which showed that the coverage rate of family-centred Indonesia health program data collection was still quite low at 24.3% while East Kalimantan Province was in the top 10 lowest data collection coverage at 11.7%, and the family index healthy 26.42%. However, the evaluation is more focused on evaluating the implementation and data collection of healthy families, not including the achievement of the indicators that have been managed and did not cover the program outcome evaluation.

The Kirkpatrick Model is a learning evaluation model that has been used widely in the health field. Related to that (7) Kirkpatrick model is very important to evaluate the effectiveness of the program implemented; the Kirkpatrick evaluation model describes four levels of program results, namely reaction, learning, behaviour, and results. Researches (8) suggest that the Kirkpatrick model is much suitable for assessing the social impact and resource value of the programs. The second level (learning) refers to the nature and volume of changes in participant pupils induced by participation and involvement in the programme, according to the findings of Dorri et al., (2019). Ultimately, organizational performance can be said to be successful if the program meets the organization's goals (9).

Independence is a condition where someone who has the will and ability to try to meet the demands of his life's needs is legal, reasonable, and responsible for all things (10). In connection with that, the Ministry of Health of the Republic of Indonesia (2010) has determined several criteria for family independence so that families can solve problems independently and take preventive actions actively). According to Kertapati's (2019) research, there is a substantial link between family independence and family health; nevertheless, family independence can be used as a metric of success in improving family health (11).

Based on the interviews with implementers of the Family centred Indonesia health program at the Sempaja-Public Health Centre said that there were no plans and appropriate methods to evaluate it in 2020. Therefore, the researchers evaluated the program using the Kirkpatrick model in the work area of the Sempaja-Public Health Center which has been a target area for the School of Health Science Mutiara Mahakam Samarinda. This study aims to evaluate the output of the implementation of the Family-centred Indonesia health program for the family with the Kirkpatrick model approach for families in Samarinda City, East Kalimantan Province. Evaluation is implemented with 12 Indicators of the program and family independence with the Kirkpatrick model approach which includes reaction, learning, behaviour, and results.

MATERIALS AND METHODS

The study was a quantitative method with a retrospective design for the evaluation of the Family-centered Indonesia health program with a Kirkpatric model approach to see family independence as an outcome. A cross-sectional design is used to measure family independence. In this study, the dependent variable is family independence while the independent variable is part of the Kirkpatrick Model, namely: Reaction, learning, Behavior, and result associated with the program. The study's target population is the South Sempaja region which includes all registered Family Heads in East Kalimantan's South Sempaja Region Samarinda. Sampling technique using purposive sampling in one region in South Sempaja and will be following inclusion and exclusion criteria. Inclusion criteria in this study are population registered in the working area of the Sempaja Public Health Center, living in the research site since 2014 (before the implementation of IHP), and willing to be a respondent. Exclusion criteria in this study are population registered in the working area of the Public Health Center but not settled there and respondents not willing to cooperative. Sampling using simple random sampling (SRS) technique. Samples were obtained using the Slovin formula with a confident level of 5% and the total sample used in this study is 351. The instrument used by self questionnaire adopt from 12 indicators in family centre Indonesia Health.

Data analysis was performed with univariate, bivariate, and multivariate analysis. The univariate analysis

produced the distribution and percentage of each variable. Data displayed from the univariate analysis are demographic factor data, respondent, reaction learning, behavior and result, and HIP-FA (12 indicators). Bivariate analysis was used to evaluate the HIP-FP by using the Kirkpatrick model with the chi-square test. The test was at significant level of alpha = 0.05. Multivariate analysis was used a regression linear test to determine the dominant variable in evaluating the family-centred Indonesia health program on family independence.

The study protocol was approved by the Ethics Committee under Komiteetek Penelitian Kesehatan Health Research Ethics Committee Universitas Aisyiyah Yogyakarta, (vide memo no. I722/KEP-IJNISA/X/2020 dated 27th October 2020).

RESULTS

Table I shows the individual characteristic of respondents. The univariate analysis of reaction, learning, behaviour, result and family independent is shown in Table II while the relationship of reaction, learning, behavior, result with family independent is shown in Table III.

The chi-square test was used using the bivariate analysis in the table above using the SPSS application. The p-value of the reaction variable was determined to be 0.000 based on these findings.This suggests that under the Healthy Indonesia programme in the Sempaja Health Center area, there is a significant association between reaction and independent family.The p-value of the learning variable is 0.000, which means that there is a significant relationship between learning and family independence in the Healthy Indonesia program in the Sempaja Health Center area. The p-value of the behaviour variable is 0.000, which means that there is a significant relationship between behaviour and family independence in the Healthy Indonesia program in the Sempaja Health Center area. The p-value of the result variable is 0.000, which means that there is a significant relationship between the result and family independence in the Healthy Indonesia program in the Sempaja Health Center area.

The Most Predisposing Factor of Family Independent

Regression Equation:
Family Independent = 0.023 + 30.6X1 + 0.9X2 + 0.8X3 + 0.5X4

Notes :
X1 = Reaction
X2 = Learning
X3 = Behavior
X4 = Result

Based on the multivariate analysis that has been done, it is obtained that family independence can be predicted through reaction, learning, behaviour, and

Table I: Individual Characteristic of Respondents

Category	Criteria	Frequency	Percentage (%)
Sex	Man	309	88.1
	Woman	40	11.9
Age	18 - 30 years old	96	27.3
	31 - 50 years old	146	41.6
	51 - 80 years old	97	27.6
	> 80 years old	12	3.5
Education	<=Elementary School	79	22.5
	Junior - Senior High School	162	46.2
	Bachelor Degree	87	24.8
	Post Graduate	23	6.5
Profession	Unemployment	36	10.3
	Businessman	93	26.5
	Government Employee	65	18.5
	Private Employee	89	25.4
	Farmer	36	10.3
	Other	32	9
Revenue	≤ 1.000	134	38.2
(in 000 IDR)	1.000 - 3.500	141	40.2
	> 3.500	76	21.6

Table II: Univariat Analysis of Reaction, Learning, Behaviour, Result and Family Independent

Variable	Good		Moderate		Poor	
	F	%	F	%	F	%
Reaction	143	40.7	192	54.7	16	4.6
Learning	138	39.3	189	53.8	24	6.8
Behavior	155	44.2	177	50.4	19	5.4
Result	148	42.2	171	48.7	32	9.1
			Dependent		Independent	
			Q	%	Q	%
Family Independent			160	46	191	54

Table III: Relationship of Reaction, Learning, Behavior, Result with Family Independent

		Family Independent		Total	p-value
		Independent	Dependent		
Reaction	Good	127	16	143	0.000
	Moderate	23	169	192	
	Poor	10	6	16	
Total Reaction		160	191	351	
Learning	Good	109	29	138	0.000
	Moderate	40	149	189	
	Poor	11	13	24	
Total Learning		160	191	351	
Behavior	Good	99	56	155	0.000
	Moderate	54	123	177	
	Poor	7	12	19	
Total Behavior		160	191	351	
Result	Good	85	63	148	0.001
	Moderate	63	108	171	
	Poor	12	20	32	
Total Result		160	191	351	

Table IV. Multivariate Logistic Regression Test

		B	S.E	Wald	df	Sig.	Exp(B)
Step 1[a]	Reaction	3.422	.528	42.040	1	.000	30.633
	Behavior	-.056	.722	.006	1	.938	.945
	Learning	-.277	.711	.151	1	.697	.758
	Result	-.609	.451	1.823	1	.177	.544
	Constant	-3.788	.483	61.523	1	.000	.023

result variables. The most predisposing factor on family independence is a reaction variable of 30.6.

DISCUSSION

The significant relationship between reaction and family independence shows that there is a change in family independence if there is an improvement in the reaction about the Healthy Indonesia Family Approach Program. If the reaction about the Healthy Indonesia Program Family Approach is good then the independence of the family will be good. On the other hand, if the response to the Healthy Indonesia Program for the Family Approach is negative, then family's independence would suffer. The reaction in this study is the family's response to the Healthy Indonesia program with a family approach. This reaction can be interpreted as an intention or perception of something that can affect behaviour. Several studies have shown that there is a relationship between a person's perception and behaviour to prevent disease and the behaviour of using contraceptives (6; 12).

A significant relationship between learning and family independence shows that there will be a change in family independence if there is an improvement in learning about the Healthy Indonesia Program with Family Approach. If learning about the Healthy Indonesia Program Family Approach is good, then family independence will be good. On the other hand, if learning about the Healthy Indonesia Program with a Family Approach is not good, the independence of the family will also be less good. Learning is an aspect of knowledge/insight owned by families about the Healthy Indonesia Program with a Family Approach. Family independence is a family behaviour in implementing the indicators of the Healthy Indonesia Program with a Family Approach. This is similar to the research of several studies that there is a significant relationship between the level of knowledge with the behaviour of checking themselves to eye health services. In the theory of behaviour formation, the emergence of behaviour is motivated by a stimulus. The stimulus produces a response that arises from within the individual as an inner drive. The inner drive is used by a person to meet the needs in dealing with the environment he faces. Knowledge is one of the stimuli in the formation of the behaviour (5; 13).

A significant relationship between behaviour and family independence shows that there will be a change in family independence if there is an improvement in behaviour regarding the Healthy Indonesia Program with Family Approach. If the behaviour of the Healthy Indonesia Program with a Family Approach is good, then the independence of the family will be good. On the other hand, if the behaviour of the Healthy Indonesia Program with a Family Approach is not good, the independence of the family will also be less good. Behaviour is an aspect of the will to do something. This is similar to several studies that there is a positive relationship between willingness and achievement. Willingness is one of the soft skill attributes resulting from the learning process. Willingness plays an important role in behaviour. The presence of a will can encourage good behaviour, otherwise, it can weaken behaviour.

A significant relationship between the results and family independence shows that there will be a change in family independence if there is an improvement in the results of the Healthy Indonesia Program with Family Approach. If the result of the Healthy Indonesia Program with a Family Approach is good, then the independence of the family will be good. On the other hand, if the result of the Healthy Indonesia Program with a Family Approach is not good, then the independence of the family will also be less good. The result in the Kirkpatrick evaluation method is the result/impact in the form of clean and healthy living behaviour carried out by the family. Family independence is a family behaviour in implementing the indicators of the Healthy Indonesia Program with a Family Approach. This is similar to other studies that there is a positive relationship between individual behaviour and performance. Behaviour is a function of the interaction between a person and his environment. Individual behaviour is a function of the interaction between humans and their environment (14; 15).

Another factor that affects family independence is the task of family health. This means that if the task of family health is good, automatically the level of family independence is also good. The function of good family health has a relationship with emotional interactions in family members. The function of family health can be achieved as seen from the ability of the family to understand and carry out family health tasks. The lower the family's ability to carry out family health tasks, the more difficult it is for the family to overcome health problems experienced by family members. Social support provided by the family will increase the family's ability to deal with health problems experienced by the family (16; 17; 18).

CONCLUSION

In conclusion of this study it can be stated that family independence in the healthy Indonesia program with a family approach is influenced by reaction, learning, behaviour, and result factors. The factor that has the

greatest influence is the reaction factor. This study provided an important understanding into service providers' perspectives about family-centred practices that would have useful implications for professional and service development. Therefore, it is recommended that this teaching and learning method should be considered in educational programs for healthcare developments.

ACKNOWLEDGEMENT

The authors are thankful to the Sepia Public Health Center authority for the completion of the work.

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