

Family Empowerment Development Based on Health Promotion Model on Early Detection of Children's Growth And Development

Short Title: Family Empowerment in Children Growth and Development Detection

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ABSTRACT: Introduction: Community empowerment has an important role for the health promotion strategies that allows the process of providing information to individuals, families or groups continuously to build awareness and shows changes in behavior. This study aims to analyze the development of family empowerment based on a health promotion model in early detection of child development.

Method: This type of research was an exploratory research, with a cross sectional design. The sample in this study were some families who have children aged 0-72 months in the Surabaya City Health Center working area. The number of the sample in this study was calculated based on the rule of the thumb sample size formula. The sampling technique was carried out by multistage random sampling. After finding the model, strategic issues will be found. Furthermore, FGDs and expert discussions were conducted to find empirical models.

Results: The results of statistical testing show that all variables show a calculated T value above 1.96 with a positive value, which indicates that these variables have an effect and increase. The results of R-Square of commitment (79.3%), cognition behavior (5.6%), Basic value (56.7%), appraisal (70.5%) and ability (46.2%), it shows that the latent variables can be explained by each of the observational variables.

Conclusion: The family empowerment model can to improve the ability to detect early growth and development disorders, the highest research shows strong results on the influence of basic values on assessment and the effect of commitment on one's ability.

Keywords: detection, development, family empowerment, growth

1. INTRODUCTION

National health management is very important for realizing the degree of public health and an integrated effort is needed from all elements of society, both health and public, government policies. Health management is managed through the management of health administration, health information, health resources, health efforts, health financing, community empowerment, science and technology in the health sector, as well as health law arrangements in an integrated and mutually supportive manner to ensure the achievement of a hot health degree (Minister of Law and Human Rights, 2012). Community empowerment has an important role because it is one of the health promotion strategies that allows the process of providing information to individuals, families or groups continuously and continuously so that the community has awareness and shows changes in behavior (Kemenkes RI, 2011)

Efforts to realize children's growth and development can also be done by empowering parents who have the most important role, especially in the infancy and toddler period. Children who grow and develop optimally will become healthy children and become the future generations of the nation with quality. Indirectly, it will reduce infant and under-five mortality, which is still high. The reduction in infant and under-five mortality is a global health target, with the indicator for the Neonatal Mortality Rate decreasing to 12 per 1,000 KH and the under-five mortality rate to 25 per 1,000 KH (Kemenkes RI, 2011).

The role of parents in realizing their child's optimal growth can be done by using the Maternal and Child Health Book (MCH Handbook) for indications of maternal and child health problems or problems, communication tools and nutrition education, immunization, and toddler development. With regard to child development, the MCH book contains signs of a healthy baby, signs of normal growth and development of babies and how to detect them. Child growth generally describes the state of the child's nutritional status, whether normal, stunted or overweight.

The proportion of malnutrition status and under five in Indonesia is around 17.7% in 2018 which has decreased from 19.6% in 2013. The proportion of very short and stunting nutritional status in children under five in East Java in 2018 is around 30.8% (Ministry of Health, 2018). In Surabaya, children under two years of age who experience a nutritional state below the red line are around 0.7, while those experiencing malnutrition are around 278 out of 127,211 children under five (East Java Province Health Office, 2017). This condition requires serious alertness and attention in health.

The use of the MCH handbook does not directly reduce maternal, infant and under-five mortality rates. However, with the use of the KIA book, mothers and families can increase prevention efforts, promote maternal and child health problems against diseases or disorders that can cause diseases that contribute to maternal and child mortality (Kemenkes RI, 2016). Many mothers who already have the MCH booklet have not had an understanding of its contents. Mother and family rarely read and study the MCH handbook for various reasons,

including not having time, not understanding, and considering the KIA book to be a logbook for health workers, and it was even found that the KIA open book was damaged.

In an effort to empower the community towards the growing state of children, the government has made efforts to promote health through posyandu. The involvement of parents in the growth area using the KIA book has not been intensively carried out (Dardjito Endo, Sist broadcastiColti, 2014). If parents are able to understand the growth and development of children in the MCH handbook, then the problem of nutritional status can reduce because the mother can take an attitude on how to act. If there is developmental deviation, then parents can also do a consultation. Nakamura in his article explains that in this global era, the use of MCH books is still used to improve maternal and child health. The MCH Handbook can improve mothers' knowledge and behavior (Nakamura, 2019). This study aims to analyze the development of family empowerment based on a health promotion model in early detection of child development.

2. METHODS

The design used in this study was an explanatory survey method with a cross sectional approach. The sample in this study were families with children aged 0-72 months in the working area of Puskesmas Kota Surabaya with a total of 130 respondents calculated based on the rule of the thumb formula. The sampling technique was carried out by multistage random sampling. The instrument used in this study was a questionnaire development of personal factors, resources factors, interpersonal factors for health workers, cognitive behavioral factors, score scores, family assessments, family commitment and family abilities in early detection. The instrument has been tested for validity first and declared valid (r count > r table) and declared reliable (Cronbach alfa > 0.6). The study was analyzed using descriptive analysis to describe the frequency distribution of each research variable, the mean and standard deviation of each variable. Meanwhile, the inferential analysis in this study uses variance-based Structural Equation Modeling (SEM) which is often referred to as Partial Least Square (PLS). Before the research was carried out, it was first tested for ethical feasibility and was declared to have passed ethics from the Health Ethics Commission of the Ministry of Health's Surabaya Polytechnic with the number EA / 261 / KEPK-Poltekkes_Sby / V / 2020.

3. RESULTS

Based on table 1, in the public health center of Surabaya almost all of them 106 respondents (81.5%) were housewives, mostly 74 respondents (56.9%) have no income, and 104 respondents (80.0%) their husbands work as employees. As many as 107 respondents (82.3%) have income < 4,200,000 per month. The highest number of children showed a number between 1 and 2 as many as 48 respondents (36.9%) and 50 respondents (38.5%), Most of them were aged between > 2-5 years % and always visit Posyandu.

Distribution of The Frequency of Research Variable

Table 2 shows the distribution variable of the respondents include personal factors, cognition behaviour factors, resources factors, interpersonal factors, basic value, family appraisal, commitment and take independent precautions. It shows that most of the 98 respondents

(75.4%) age were in the range of 20-35 years, with the majority of education at most moderate education (52.3%), almost all 105 respondents (80.8 %) have good knowledge and 84 respondents (64.6%) have very good motivation. Based on cognition behaviour factors, 65.4% respondents felt useful, 70.8% felt there were obstacles, 65.4% felt very confident, Most 59.9% showed the effect of activities in the negative category on early detection of growth and development using the MCH Handbook.

The majority stated that family relationships 76.2% were in the good category, the community support 77.7% in the good category too, and most of the needs for their respective roles were in the good category (76, 2%). The use of the MCH Handbook for early detection of children development showed that health workers strengthen in the good category (54.6%) and most of them was facilitate (68.5%) and support (59.2%). The majority of 60.8% respondents stated that they have the responsibility for the use of the MCH Handbook for early detection of children's development, most respondents have attention and caring in positive category. Families have an assessment in the use of the MCH Handbook for early detection of deviations in child development, most of them were positive challenges (62.3%) and other thought as positive stressors (57.7%). The commitment respondents to responsibility (63.1%), independent (63.8%), goals (61.5%), self-improvement (66.2%) and success (65.4%) in the high category. The ability of families to use the MCH handbook for the detection of children's growth is in the good category (74.6%) and the majority (59.7%) is in the good category for the detection of child development.

Development of Family Empowerment Model

The convergent validity test show that according to the criteria a valid indicator explains the latent variable in a measurement model (outer model) with loading factor value >0.5 . The personal factors, age and education indicators were not valid in explaining the latent variables (loading factor value <0.5). Furthermore, age and education indicators were excluded and the results showed all factors were valid (Figure 1).

The results of statistical testing show that all variables show a calculated T value above 1.96 with a positive value, which indicates that these variables have an effect and increase. However, there is one that shows that it is not significant, namely the basic value does not have a direct effect on the respondent's ability to use the MCH handbook for early detection of deviations in child growth and development. In the calculation results, the effect of the baseline value on the assessment and commitment to the respondent's ability shows the highest effect (Table 3).

Based on the R-square value, it shows that the latent variables can be explained by each of the observational variables. The measurement results that show the highest R-Square value is in the variable X.7 Commitment with a value of 0.793, which indicates that the latent variable of commitment can be explained by the observational variable cognitive behavior, basic values, family assessments of 79.3%, while the rest is explained by other variables such as attitude, responsibility, independence and risk-taking, goal setting, desire to improve, and desire to succeed. The results of R-Square cognition behavior (5.6%), Basic value (56.7%), appraisal (70.5%) and ability (46.2%) (Table 4).

The goodness of fit of model development

The goodness of fit test of the formed model aims to determine the predictive ability of the family empowerment model in the use of the KIA book for early detection of deviations in child growth and development. The value of Q2 above zero provides evidence that the Predictive Relevance (Q2) model, which means that the prediction results from the development of a family empowerment model based on the Health Promotion Model in the use of the MCH book on the family's ability to detect deviations in child growth and development have a good or large prediction, because About 99% of the family's ability in early detection of child development deviation can be explained by variables of personal factors, resource factors, family assessments and family commitment. This means that the development of this model is structured according to the reality data.

4. DISCUSSION

The family empowerment model can to improve the ability to detect early growth and development disorders, the highest research shows strong results on the influence of basic values on assessment and the effect of commitment on one's ability. The values that exist in a person will influence the judgment in determining everything, including the changes to be made, so that the behavior that occurs will also be determined. The results of this study are in line with research which states that assessment arises due to the ability of a human sense to provide an assessment of what has been obtained, besides that the values and basic beliefs possessed will produce a form of thought. Thought that is in accordance with the existing rationale and is accompanied by various data will produce an assessment of the individual.

Commitment is also the most important thing in any behavior change, including empowerment in a person. Commitment will determine the willingness of each individual in awareness and desire to take action. Commitment will generate an intention to increase one's knowledge and attitudes. High commitment will also make the community's ability higher because they already have strong basic values and intentions to make changes. Family empowerment will be seen to be successful if the commitment of each person to make himself independent increases, because the principle of empowerment or community as a partner is an acceleration model in improving one's behavior.

The development of a family empowerment model in early detection of growth and development problems is influenced by resource factors, so as to increase the basic values that exist in individuals. Resource factors consisting of family connections, community resources, competing role demand, enable families to be able to improve their behavior. Human resources are one of the most important factors that cannot even be separated from a change that will occur in the community and in a person. HR is also the key that determines the development of a behavior. Every available resource tries to find connections in other individuals and communities so that it can increase the ability of families to make early detection of problems with growth and development disorders.

Family empowerment is the process of providing information to the family continuously following the client's development, as well as the process of helping clients, so that the client changes from not knowing to knowing or being aware, from knowing to willing and from being willing to be able to carry out the introduced behavior. Empowerment is not just giving authority or power to the weak. Empowerment contains the meaning of the

educational process in improving the quality of individuals, groups or communities so that they are empowered, have competitiveness, and are able to live independently. This is in line with research which states that empowerment emphasizes that people acquire sufficient skills, knowledge and power to influence their lives and the lives of others they care about. Empowerment prepares the community in the form of resources, opportunities, knowledge and expertise to increase self-capacity and participate and influence life in the community itself. Empowerment emphasizes how society is able to build itself and improve its own life, both individually and in the community.

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Family empowerment has a mechanism that allows for changes in family abilities as a positive impact of family-centered nursing interventions and health promotion actions and cultural appropriateness that affect treatment action and family development (Lavarack, G. 2005). In family empowerment, there are three main components: 1) All families have strength and are able to build strength; 2) Difficulty in fulfilling family needs, not because of disability, but the family social support system does not provide opportunities to achieve them; and 3) Family members make efforts to apply skills and competencies in the context of family change.

The family has an important role to serve various social needs. Family plays an important role in the socialization of the younger generation. Family units look after or care for dependent family members such as children and the elderly who are unable to care for themselves. Based on what is described in the Caregiver Empowerment Model it is used to improve and promote better outcomes in family care. In family empowerment, it is necessary to identify several things including family background which consists of acculturation, demographics and previous experiences that can affect caregiving. Caregiving Demant which consists of decreased acceptance of care, parenting activities and competing role demands. Resources that consist of: personal factors of family members such as coherence, spirituality and coping are used. Family factors such as family ties and assistance. Community factors such as use of community resources. Filial Value, which consists of an attitude of responsibility, respect and the ability to care for. Variable filial values consisting of challenges and stressors. These three variables can affect the caregiver outcome (care outcomes) which consists of perceptions of health, personal and family growth, the existence of a prosperous condition. Appraisal, the process of assessing which consists of two components of the assessment results, as a challenge or as a stressor / cause of stress. Caregiver Outcome, the result of family care is the perception of health, personal and family growth, the existence of a prosperous condition.

5. CONCLUSION

The family empowerment model can to improve the ability to detect early growth and development disorders, the highest research shows strong results on the influence of basic values on assessment and the effect of commitment on one's ability. The values that exist in a person will influence the judgment in determining everything, including the changes to be made, so that the behavior that occurs will also be determined. Commitment is also the most important thing in any behavior change, including empowerment in a person.

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Table 1. The theme of indepth interview in first stage

| Respondents Characteristics | Indicator | Frequent | |
|-----------------------------|----------------|----------|------|
| | | n (130) | % |
| Job | Housewives | 106 | 81.5 |
| | Civil servant | 7 | 5.4 |
| | Privat sector | 17 | 13.1 |
| Income | None | 74 | 56.9 |
| | <4.200.000 | 50 | 38.5 |
| | ≥4.200.000 | 6 | 4.6 |
| Husband's Job | Civil servant | 104 | 80.0 |
| | Enterpreneur | 21 | 16.2 |
| | Do not working | 5 | 3.8 |
| Husband's Income | <4.200.000 | 107 | 82.3 |
| | ≥4.200.000 | 23 | 17.7 |
| Children | 1 | 48 | 36.9 |
| | 2 | 50 | 38.5 |
| | ≥ 3 | 24,6 | 24.6 |
| Smallest Child's age | < 1 | 32 | 24.6 |
| | 1-2 | 26 | 20.0 |
| | >2-5 | 72 | 55.4 |
| Visit to Posyandu | Never | 1 | 0.8 |
| | Sometimes | 6 | 4.6 |
| | Often | 6 | 4.6 |
| | Always | 117 | 90 |

Table2.The distribution factors of the respondents

| Variable | Indicator | Frequency | | Mean | SD |
|--|--------------|-----------|------|-------|-------|
| | | n (130) | % | | |
| The personal factors of respondents | | | | | |
| Age | < 20 | 2 | 1.5 | | |
| | 20-35 | 98 | 75.4 | | |
| | >35 | 30 | 23.1 | | |
| Educational Background | High | 16 | 12.3 | | |
| | Moderate | 68 | 52.3 | | |
| | Basic | 46 | 35.4 | | |
| Knowledge | Good | 105 | 80.8 | 88.6 | 13.2 |
| | Enough | 25 | 19.2 | | |
| | Less | 0 | 0.0 | | |
| Motivation | Very good | 84 | 64.6 | 83.8 | 15.5 |
| | Good | 34 | 26.2 | | |
| | Enough | 9 | 6.9 | | |
| | Less | 1 | 0.8 | | |
| | Very less | 2 | 1.5 | | |
| Cognition Behaviour Factors | | | | | |
| Perceived benefid of action | Very helpful | 85 | 65.4 | 88.46 | 14.35 |
| | Helpful | 41 | 31.5 | | |
| | Less useful | 4 | 3.1 | | |

| | | | | | |
|--|----------------------|-----|------|-------|-------|
| Perceived barriers to action | There is no obstacle | 38 | 29.2 | 60.96 | 24.29 |
| | There is obstacle | 92 | 70.8 | | |
| Perceived self-efficacy | Very confident | 85 | 65.4 | 84.81 | 11.79 |
| | Enough | 45 | 34.6 | | |
| | Not sure | | | | |
| Activity-related affect | Positive | 53 | 40.8 | 84.04 | 12,45 |
| | Negative | 77 | 59.2 | | |
| Resources factors | | | | | |
| Family connectednes | Good | 99 | 76.2 | 87.54 | 9,67 |
| | Enough | 31 | 23.8 | | |
| | Less | 0 | 0.0 | | |
| Community resources | Good | 101 | 77.7 | 89.42 | 9,95 |
| | Enough | 29 | 23.3 | | |
| | Less | 0 | 0.0 | | |
| Competing role demand | Good | 99 | 76,2 | 88,19 | 9,82 |
| | Enough | 31 | 23,8 | | |
| | Less | 0 | 0.0 | | |
| The effect of Interpersonal Factors | | | | | |
| <i>Empowering</i> | Good | 71 | 54,6 | 81,54 | 19,90 |
| | Enough | 42 | 32,3 | | |
| | Less | 17 | 13,1 | | |
| <i>Enabling</i> | Good | 89 | 68,5 | 87,37 | 17,46 |
| | Enough | 31 | 23,8 | | |
| | Less | 10 | 7,7 | | |
| <i>Supporting</i> | Good | 77 | 59,2 | 83,14 | 20,21 |
| | Enough | 38 | 29,2 | | |
| | Less | 15 | 11,5 | | |
| Basic Value | | | | | |
| Responsibility | Positive | 79 | 60,8 | 91,54 | 11,14 |
| | Negative | 51 | 39,2 | | |
| Respect | Positive | 63 | 48,3 | 88,65 | 11,80 |
| | Negative | 67 | 51,5 | | |
| Caring | Positive | 70 | 53,8 | 90,19 | 11,33 |
| | Negative | 60 | 46,2 | | |
| Family appraisal | | | | | |
| Challenges | Positive | 81 | 62,3 | 90,38 | 10,45 |
| | Negative | 49 | 37,7 | | |
| Stressor | Positive | 75 | 57,7 | 89,49 | 11,11 |
| | Negative | 55 | 42,3 | | |
| Commitment | | | | | |
| Responsible | High | 82 | 63,1 | 88,46 | 11,48 |

| | | | | | |
|-------------------------------------|--------|----|------|-------|-------|
| | Enough | 48 | 36,9 | | |
| | Less | - | - | | |
| Independent | High | 83 | 63,8 | 87,95 | 11,70 |
| | Enough | 47 | 36,2 | | |
| | Less | - | - | | |
| Purpose | High | 80 | 61,5 | 87,88 | 11,33 |
| | Enough | 50 | 38,5 | | |
| | Less | - | - | | |
| Self improvement | High | 86 | 66,2 | | 11,22 |
| | Enough | 44 | 33,8 | 89,10 | |
| | Less | - | - | | |
| Desired to Success | High | 85 | 65,4 | 88,20 | 11,69 |
| | Enough | 44 | 33,8 | | |
| | Less | 1 | 0,8 | | |
| Take independent precautions | | | | | |
| Growth disorders | High | 97 | 74,6 | 90,12 | 13,05 |
| | Enough | 29 | 22,3 | | |
| | Less | 4 | 3,1 | | |
| Child development deviations | High | 77 | 59,7 | 83,81 | 15,52 |
| | Enough | 41 | 31,5 | | |
| | Less | 12 | 9,2 | | |

Table 3. The T-Test Results of Intervariable Variables in the Structural Model

| The effect of variable | Original Sample (O) | T Statistics (O/STDEV) | P Values | Significancy |
|--|---------------------|--------------------------|----------|--------------|
| X1 Personal factors -> X4 CognitionBehaviour | 0.251 | 2.779 | 0.006 | Significant |
| X2 Resources -> X5 Basic value | 0.367 | 2.977 | 0.003 | Significant |
| X3 Interpersonal -> X5Basic value | 0.179 | 2.284 | 0.023 | Significant |
| X3 Interpersonal -> X7 Commitment | 0.190 | 3.457 | 0.001 | Significant |
| X4 CognitionBehaviour -> X5 Basic Value | 0.343 | 2.633 | 0.009 | Significant |
| X4 CognitionBehaviour -> X7 Commitment | 0.185 | 2.205 | 0.028 | Significant |
| X5 Basic value -> X6 Appraisal | 0.841 | 15.722 | 0.000 | Significant |
| X5 Basic values -> X7 Commitment | 0.345 | 2.871 | 0.004 | Significant |
| X6 Appraisal -> X7 Commitment | 0.324 | 2.994 | 0.003 | Significant |
| X7 Commitment -> Y Ability | 0.683 | 14.371 | 0.000 | Significant |

Table 4. The R-Square Value

| | R Square | R Square Adjusted |
|-----------------------|----------|-------------------|
| X4 CognitionBehaviour | 0.063 | 0.056 |
| X5 Basic value | 0.577 | 0.567 |
| X6 Appraisal | 0.707 | 0.705 |
| X7 Commitment | 0.799 | 0.793 |
| Y Ability | 0.466 | 0.462 |

FIGURES

Figure 1. The outer model of family empowerment development

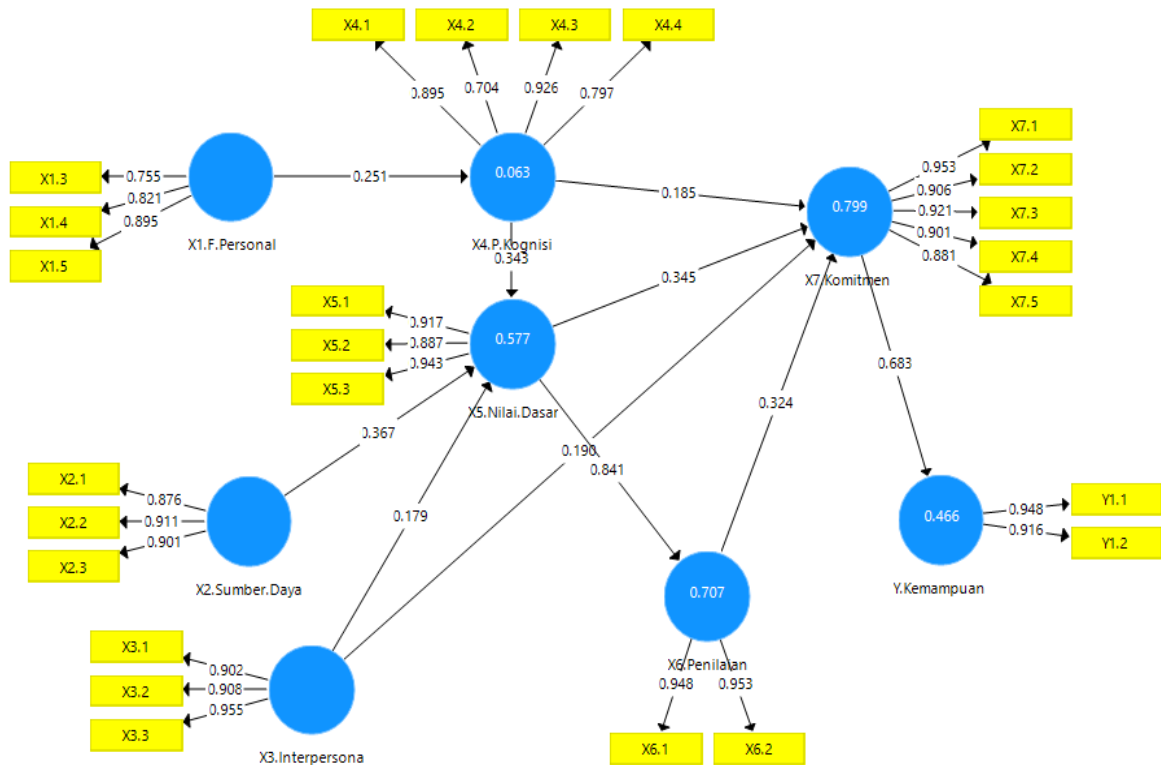


Figure 2. The inner model of family empowerment development

