THE RELATIONSHIP BETWEEN EDUCATION, EMPLOYMENT, INCOME AND AVOID FOOD BEHAVIOR WITH FAMILY NUTRITION WOMEN AWARE OF CHILDREN IN SOUTHERN DISTRICT YAPEN ISLANDS INDONESIA YEAR 2013

SAMUEL PITER IRAB, DOLFINUS BOUWAY, FREDRIK SOKOY

UNIVERSITY OF CENDERAWASIH PAPUA INDONESIA
email: samuelirab@gmail.com

ABSTRACT

Background: Family Literacy Nutrition (KADARZI) which is the vision and mission of the national nutrition program, Kadarzi is a family that behaves nutritionally balanced, able to recognize the nutritional problems of each member of the family and take steps to address nutritional issues in family members.

Objective: To analyze the relationship between education, employment, income and food taboos with Mother Toddler kadarzi behavior.

Method: This descriptive analytic research with cross sectional study design. Population is 1089 children under five and the sample was 551 children under five. Analisisi processing and computerized data using SPSS version 16, with the nonparametric statistical design with Chi - Square ($X^2$).

Results: The results of the analysis of statistical tests independent and dependent variables $p$ (0.019) $>$ 0.05 and OR = 2,171, showed no relationship between education and knowledge kadarzi, $p$ (0.02) $>$ 0.05 and OR = 3,143 showed no relationship between job kadarzi knowledge, $p$ (0.023) $>$ 0.05 and OR = 7,286 showed no relationship between income kadarzi knowledge, and $p$ (0.965) $>$ 0.05 and OR = 1,017 showed no association between dietary restrictions with knowledge kadarzi. Results of the analysis of statistical tests independent and dependent variables $p$ (0.024) $>$ 0.05 and OR = 1.86 showed no relationship between education and attitudes kadarzi, $p$ (0.001) of $<0.05$ and OR = 2,039 showed no relationship between job with the attitude kadarzi, $p$ (0.033) $>$ 0.05 and OR = 11 228 showed there is no relationship between income and kadarzi attitude, and $p$ (0.465) and OR = 0812 showed no association between dietary restrictions kadarzi attitude. Results of the analysis of statistical tests independent and dependent variable $p$ (0.001) and OR = 2,478 shows there is a relationship between education and action kadarzi, $p$ (0.004) of $<0.05$ and OR = 1,886 showed no relationship between job kadarzi action, $p$ (0.033) $>$ 0.05 and OR = 1,677 showed no relationship between income kadarzi action, and $p$ (0.585) and OR = 1,177 showed no association between dietary restrictions with kadarzi action.

Conclusion: There is a relationship between education, employment, and income with the knowledge, attitudes and actions kadarzi on mothers in South Yapen District. There is no relationship between dietary restrictions with the knowledge, attitudes and actions kadarzi on mothers in South Yapen District.

Keywords: Education, Employment, Income, Food and Behaviour Precepts, Kadarzi
INTRODUCTION

Family Nutrition Improvement Effort (Indonesian: UPGK) is a coordinated education effort among agriculture, health, education and other agencies concerned, with the aim to improve the nutritional status of people, especially mothers and children in rural areas.

Nutrition Directorate of the Ministry of Health has set the guidelines as a guide in preparing the daily diet called a balanced dietary guidelines. These guidelines all the elements that the body needs are divided into 3 groups: group element elements energy providers, class elements necessary to build body tissue cells, and the elements necessary to regulate the work of the body tissue (Entjang, 1997).

Form effective programs such as improved health behavior and nutrition levels of families who done professionally should begin to think, today introduced Family Literacy Nutrition (KADARZI) which is the vision and mission of a national nutrition program, aims to tackle and prevent nutritional problems. Kadarzi is a family that behaves nutritionally balanced, able to recognize the nutritional problems of each member of the family and take steps - steps to address the nutritional problems of family members.

Strategy from Yapen Islands District Health Department in improving nutrition in health conscious for Mother Toddler in Papua province is inseparable from a vision which states: “The vision of health development Yapen Islands District is” Yapen Islands District Healthy Year 2010 “, which is realized through various health programs directed and continuous in order to support the achievement of the development vision Yapen Islands District.


According to the data source Serui City Health Center District South Yapen Yapen Islands in 2013 showed that of the 13 villages / village there are 22 people stunting and 5 children under five malnourished. (DHO Yapen Islands, 2013) quite fathomable nutrition among children under five are there may be a relationship with education, employment, or with low family income. Basically the food taboos in the family also affect the mothers at the time of the fulfillment of nutritional intake, as well as parenting mother of the family in raising children.

Based on the above problems, the researchers are interested and want to examine "Is there a relationship between Education, Employment, Family Income, and the Food Taboo Behavior Kadarzi on mothers in South Yapen District of Yapen Islands District?"

Research purposes

Analyze the relationship of education, employment, income and food taboos with Mother Toddler kadarzi behavior.

RESEARCH METHODS

Quantitative research, with cross sectionalstudy. The approach used observational. Research sites in South Yapen District, sampling in this study done by total sampling that all Mother Toddler totaling 551 orang.Pengolahan using computerized research data in SPSS version 12 will be displayed in the form of percentage distribution table twice two on research ,Data analysis was performed with Chi - Square ($x^2$)
RESULTS AND DISCUSSION

A. Analysis of the Relationship Between Education, Employment, Income, and Taboo Kadarzi Knowledge On Food With Mother Toddlers in South Yapen District of Yapen Islands District.

Table 1. Relationship Between Education, Employment, Income, and Taboo Kadarzi Knowledge On Food With Mother Toddlers in South Yapen District Islands District Yapen

<table>
<thead>
<tr>
<th>Variables</th>
<th>Knowledge Kadarzi</th>
<th>$\chi^2$</th>
<th>p</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good</td>
<td>Less</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>428 (77.7%)</td>
<td>40 (7.3%)</td>
<td>5521</td>
<td>0.019</td>
<td>2.171</td>
</tr>
<tr>
<td>Good</td>
<td>69 (12.5%)</td>
<td>14 (2.5%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less</td>
<td>14 (2.5%)</td>
<td>2 (0.4%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>272 (49.4%)</td>
<td>15 (2.7%)</td>
<td>14176</td>
<td>0.002</td>
<td>3.143</td>
</tr>
<tr>
<td>Good</td>
<td>225 (40.8%)</td>
<td>39 (7.1%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less</td>
<td>27 (5.1%)</td>
<td>2 (0.4%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>433 (78.6%)</td>
<td>26 (4.7%)</td>
<td>53194</td>
<td>0.002</td>
<td>7.286</td>
</tr>
<tr>
<td>Enough</td>
<td>64 (11.6%)</td>
<td>28 (5.1%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less</td>
<td>28 (5.1%)</td>
<td>2 (0.4%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abstinence Food</td>
<td>413 (75%)</td>
<td>9 (1.6%)</td>
<td>0.002</td>
<td>0.965</td>
<td>1.017</td>
</tr>
<tr>
<td>No</td>
<td>84 (15.2%)</td>
<td>45 (8.2%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Description:

* Meaningful (p <0.05)

Results of the study mothers as much as 551 samples of Table 1. Characteristics of mothers can be seen in the variables education, employment, income and food taboos with the level of knowledge Kadarzi.

Based on the analysis Cross tabulation education variable by variable Kadarzi knowledge of mothers. The results showed that mothers had higher education with the knowledge Kadarzi well as 428 people or by 77.7%, whereas low education with knowledge kadarzi less 14
persons mothers of 2.5%. Results of analysis Chi - Square showed no relationship between level of education and knowledge Kadarzi P <0.05 ie mothers have high levels of education and knowledge Kadarzi good, this means that education affects mothers to behave Kadarzi mother's knowledge.

The variable level of education and knowledge variables kadarzi after doing test the relationship obtained value OR = 2.171 namely that mothers have higher education levels 2,171 times better chance of mothers who have low education levels. Based on the measurement confidence interval CI 95% that mothers have an average education level with knowledge kadarzi 1.123 to 4.199 IK.

Based on Table 1 relationship between the variables work with variable knowledge kadarzi mothers. Results showed that the number of mothers who had a good job with a good knowledge of as many as 272 people kadarzi or by 49.4%, whereas less work with the knowledge kadarzi less as many as 39 people or 7.1%

Results of analysis Chi - Square showed no relationship between the level of work with knowledge Kadarzi P <0.05, namely that mothers have sufficient income level basically have a good knowledge Kadarzi. Based on the results of testing the relationship Odds Ratio = 7286 showed that mothers who have sufficient income 7,286 times greater chance of having knowledge kadarzi well in comparison with women who did not have less income. Results IK 95% indicates that the average level of income with the knowledge kadarzi mothers between 4019-13208.

Results of analysis Chi - Square showed no association between dietary restrictions with knowledge Kadarzi P <0.05 is that mothers who do not have food taboos Kadarzi have good knowledge. Based on the results of testing the relationship Odds Ratio = 0965 showed that mothers who have food taboos 0.965 times less knowledgeable kadarzi less in comparison with mothers who have a good knowledge kadarzi. Results IK 95% indicate that the average dietary restrictions with knowledge kadarzi mothers between 0479-2160

Health education activity is an attempt to create a community behavior conducive to health. Public health education seeks to realize and know how to maintain their health, how to avoid or prevent things - things that harm their health and the health of others, where should seek treatment when ill, and sebaginya. Public awareness over the so-called level of awareness / public knowledge about health or health disebut"melek "(health literacy). But more important is to achieve health behaviors or healthy behavior (Notoatmodjo, 2003).
Thus when we see the results of statistical tests above that relate very significant, it can be said that education has a major role in influencing the behavior of the toddler's mother pengetahuan particularly in South Yapen District of Yapen Islands District. It is also, according Dainur (1995) said that health education in the community, especially parents (mothers), is the fundamental work of all the activities in BKIA. Public health education (health education) is an absolute must understand its implementation by all elements of maternity officer, that caused most of the mothers had low knowledge besides that it also by socio-cultural / economic is not sufficient to receive an update and modernize health services with technology appropriate though. Shaman special mothers Infants generally, require clear information-information that facilitates understanding for the Welfare of family and community members in the meruba knowledge of how where life is good and healthy.

B. Analysis Relationship Between Education, Employment, Income, and Taboo Food With Attitude Kadarzi On Mother Toddlers in South Yapen District of Yapen Islands District.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Attitude Kadarzi</th>
<th>X²</th>
<th>p</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good</td>
<td>Less</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>392 (71.1%)</td>
<td>76 (13.8%)</td>
<td>5082</td>
<td>0024</td>
<td>1.86</td>
</tr>
<tr>
<td>Good</td>
<td>61 (11.1%)</td>
<td>22 (4%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less</td>
<td>308 (55.9%)</td>
<td>50 (9.1%)</td>
<td>10 196</td>
<td>0001</td>
<td>2,039</td>
</tr>
<tr>
<td>Work</td>
<td>145 (26.3%)</td>
<td>48 (8.7%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>395 (71.7%)</td>
<td>37 (6.7%)</td>
<td>1,163</td>
<td>0038</td>
<td>11 228</td>
</tr>
<tr>
<td>Less</td>
<td>58 (10.5%)</td>
<td>61 (11.1%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>379 (68.8%)</td>
<td>19 (3.4%)</td>
<td>0535</td>
<td>0465</td>
<td>0812</td>
</tr>
<tr>
<td>No</td>
<td>74 (13.4%)</td>
<td>79 (14.3%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abstinence Food</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Description:**

* Meaningful (p <0.05)

Results of the study mothers as much as 551 samples of **Table 2.** Characteristics of mothers can be seen in the variables education, employment, income and food taboos with Attitude Kadarzi.

Based on the analysis **Crosstabs** education variable by variable Kadarzi attitude mothers. The results showed that mothers have higher education levels with good kadarzi attitude as much as 392 people or by 71.1%, whereas low education with less kadarzi attitude as much as 22 people atausebesar 4%. Results of analysis Chi - Square shows p <0.05 means that there is a correlation between level of education and attitude Kadarzi mothers, this means that education affects attitudes mother mothers to behave Kadarzi.

Variable levels of education and attitudinal variables kadarzi after doing test the relationship obtained value OR = 1.86, namely that mothers have higher education levels 1.86 times more likely besarbersikap kadarzi of mothers who have low education levels. Based on the measurement confidence interval (CI 95%) that mothers have an average education level with the attitude kadarzi1.078 - 3,211.

The relationship between the variable jobs with variable kadarzi attitude mothers **Table 2.** The results showed that the number of mothers who had a good job with a good knowledge of as many as 308 people kadarzi or by 55.9%, whereas less work with the knowledge kadarzi less as many as 48 people or by 8.7%

Results of analysis Chi - Square shows p <0.05 means that there is a relationship between the level of work with the attitude Kadarzi on mothers is that mothers have high levels of job basically have a good attitude Kadarzi. Based on the results of testing the relationship Odds Ratio (OR) = 2039 shows that mothers who have a good job 2,039 times greater chance of having a good attitude kadarzi compared with mothers who did not have a job. Results IK 95% indicates that the average level of work with knowledge kadarzi mothers between 1310-3174.

**Table 2.** The relationship between the variables with variable income mothers kadarzi attitude. Results showed that the number of mothers who have sufficient income to kadarzi good attitude as much as 395 people or by 71.7%, while revenues less with less kadarzi attitude as many as 61 people or 11.1%.

Results of analysis Chi - Square showed no relationship between the level of income with the attitude Kadarzi P <0.05, namely that mothers have sufficient income level Kadarzi basically have a good attitude. Based on the results of testing the relationship Odds Ratio = 11 228 showed that mothers who have enough income 11 228 times greater chance of having high kadarzi attitude compared with mothers with less income. Results IK 95% indicates that the average level of income with the attitude of mothers kadarzi between 6860-18377.

Based on **Table 2.** The relationship between dietary restrictions variable with variable kadarzi attitude mothers. Results showed that the number of mothers who do not have food taboos with kadarzi good attitude as much as 379 people or by 68.8%, while no restrictions kadarzi less food with attitude as much as 79 people or 14.3%.

P value of <0.05 showed no association between dietary restrictions with knowledge Kadarzi is that mothers who do not have food taboos have Kadarzi good attitude. Based on the results of testing the relationship OR = 0812 showed that mothers who have food taboos 0812 times smaller kadarzi attitude lacking in comparison with mothers who have an attitude of not abstinence makanan.Hasil CI 95%
indicate that the average dietary restrictions with knowledge kadarzi mothers between 0468-1420.

The strategic plan the Department of Health (2005-2009). Public Nutrition Improvement Program with an aim to enhance awareness of family nutrition in improving the nutritional status of people, especially in pregnant women, infants, and toddlers. Principal activity and activity indicative of this program include: Improved nutrition education in which there are: a) preparing a policy framework and preparation of community nutrition education strategies b). Develop IEC materials nutrition c) disseminate educational material through formal educational institutions, non-formal and public institutions d). To promote a sustainable manner e) improving capabilities through technical training and management f). Coaching and capacity building of officers in nutrition improvement program.

C. Analysis of the Relationship Between Education, Employment, Income, and Taboo Food With Kadarzi Actions On Mother Toddlers in South Yapen District of Yapen Islands District.

Table 3. Relationship Between Education, Employment, Income, and Taboo Food With Kadarzi Actions On Mother Toddlers in South Yapen District Islands District Yapen

<table>
<thead>
<tr>
<th>Variables</th>
<th>Action Kadarzi</th>
<th>(X^2)</th>
<th>p</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good</td>
<td>Less</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>402 (73%)</td>
<td>66 (12%)</td>
<td>11319</td>
<td>0.001</td>
<td>2478</td>
</tr>
<tr>
<td>Less</td>
<td>59 (10.7%)</td>
<td>24 (4.4%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Work</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>302 (54.8%)</td>
<td>56 (10.2%)</td>
<td>8503</td>
<td>0.004</td>
<td>1886</td>
</tr>
<tr>
<td>Less</td>
<td>143 (21%)</td>
<td>50 (9.1%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enough</td>
<td>357 (64.8%)</td>
<td>75 (13.6%)</td>
<td>4534</td>
<td>0.033</td>
<td>1.677</td>
</tr>
<tr>
<td>Less</td>
<td>88 (16%)</td>
<td>31 (5.6%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Abstinence Food</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>368 (66.8%)</td>
<td>16 (2.9%)</td>
<td>0298</td>
<td>0.585</td>
<td>1.177</td>
</tr>
<tr>
<td>Exist</td>
<td>77 (19%)</td>
<td>90 (16.3%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Description:

* Meaningful (p < 0.05)

Results of the study mothers as much as 551 samples of Table 3. Characteristics of mothers can be seen in the variables education, employment, income and food taboos with Kadarzi action.

Based on the analysis Crosstabs education variable by variable Kadarzi actions mothers. The results showed that mothers had higher education with action Kadarzi well as 402 people or by 73%, whereas low education with knowledge kadarzi less as many as 24 people mothers by 4.4%. Results of analysis Chi - Square showed no relationship between level of education and action Kadarzi p <0.05 ie mothers have higher education levels are very influential in action behave Kadarzi.

Variable levels of education and action variables kadarzi after doing test the relationship obtained value OR = 2.478 ie that mothers have higher education levels 2,478 times greater chance to take action kadarzi compared with mothers who have low education. Based on the measurement confidence interval CI 95% that mothers have an average education level with knowledge kadarzi 1442-4257 IK.

Statistical Results Table 3 the relationship between the variables work with variable kadarzi actions mothers. Results showed that the number of mothers who had a good job with good kadarzi measures 302 persons or by 54.8%, while work less with less kadarzi action by 50 people or 9.1%

Results of analysis Chi - Square showed no relationship between the level of work with the action Kadarzi p <0.05, namely that mothers have a good level of job basically have good Kadarzi action. Based on the results of testing the relationship Odds Ratio = 1886 shows that mothers who have a good job 1,886 times more likely to commit acts kadarzi in comparison with mothers who have less income. Results IK 95% indicates that the average level of income to the action kadarzi mothers antara0.655 - 2114.

Table 3 is based on the relationship between dietary restrictions variable with variable kadarzi actions mothers. Results showed that the number of mothers who do not have food taboos with kadarzi good action as much as 368 people or by 66.8%, while no restrictions foods with less kadarzi actions of 90 people or 16.3%.

Results of analysis Chi - Square showed no association between dietary restrictions with action Kadarzi p> 0.05 is that mothers who do not have food taboos have good Kadarzi action means that ibi -Mother children under five in the region Yapen island district has no dietary restrictions but on basically have to berperiilaku kadarzi action .. Based on the results of testing the relationship Odds Ratio = 1177 showed that mothers who do not have food taboos 1,177 times greater kadarzi action in comparison with mothers who have dietary restrictions. Results IK 95% indicates that the average level of work with knowledge kadarzi mothers antara1.226 - 2849.

Table 3 is based on the relationship between variables with variable income mothers kadarzi action. Results showed that the number of mothers who have a good income with good kadarzi measures a total of 357 people or by 64.8%, while revenues less with less kadarzi actions of 31 people or 5.6%.

Results of analysis Chi - Square showed no relationship between the level of income with the knowledge Kadarzi P <0.05, namely that mothers have sufficient income level basically have a good Kadarzi action. Based on the results of testing the relationship Odds Ratio = 1667 showed that mothers who have sufficient income 1,667 times more likely to commit acts kadarzi in comparison with mothers who have less income. Results IK 95% indicates that the average level of income to the action kadarzi mothers antara0.655 - 2114.
IK 95% indicate that the average dietary restrictions with knowledge kadarzi mothers between 0655-2114.

Iswandi et al (2007). Nutrition is one of the major determining factor for the quality of human resources. Community nutrition improvement program is one of the main priorities of national programs. Sekitas current estimates 50% of the total households consume less than the daily needs - today, more than 5 million children under the age of lita years menerita malnutrition, and about 100 million people at risk of developing various nutritional problems such as lack of vitamins, calcium, zinc etc. The prevalence of malnutrition in children under five in Indonesia is still high 25%.

CONCLUSIONS

There is a relationship between education, work, income, with the knowledge, attitudes, and actions in the toddler's mother Kadarzi. Puskemas further increase the role of primary health care through the Family Literacy Nutrition Overwrite System and Reporting Integrated Health Centers (SP2TP) in the working area health centers

There is no relationship between AVOID Foods with Knowledge, Attitudes, and Actions in the toddler's mother Kadarzi. Nutrition Aware Family program objectives to improve the nutritional status of children under five, the need for public awareness to behave aware of nutrition for growth and developments toddlers

BIBLIOGRAPHY

7. DHO Yapen Islands, 2013. Toddler Nutrition Status Report
10. MOH. (2005), the Strategic Plan, the Ministry of Health from 2005 to 2009.


