

ORIGINAL ARTICLE

INDONESIAN CHILDREN'S QUALITY OF LIFE: A CASE STUDY OF RESIDENTS RELOCATION TO FLATS IN JAKARTA PROVINCE

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ABSTRACT

Resident relocation to flats policy becomes a strategy of the Jakarta Provincial Government to overcome illegal settlements and slum areas. The relocation is also aimed to improve the quality of life, particularly of the children. This research analyses the determinant factors of the quality of life of children who are moved to the flats due to the relocation. This research uses the Kid-KINDLR questionnaire to collect data of children in the range of age 7-13 years and the Z-score method to process the data and to build an analysis. The Z-score > 0 indicates a good quality of life, while Z-score < 0 is otherwise. The result shows that 48% of the children have a good quality of life and 52% of the children have a poor quality of life (mean = 91.45 and SD = 9.559). There is a positive correlation between the quality of life of children and the pattern of nutrients intake of children ($r = 0.053$, $p = 0.518$), the education of the head of the family ($r = 0.058$, $p = 0.478$), and the household income ($r = 0.070$, $p = 0.401$). Whereas, the negative correlation between the quality of life of children and the number of family members ($r = -0.088$, $p = 0.284$). This research argues that to increase the quality of life of children, the facilities in the flats must be built properly for the growth of the children. In addition, family involvement must be improved to provide a high quality of nutrients intake for the children.

Keywords: children's quality of life, determinant factors, flats, Indonesia

INTRODUCTION

The population of Jakarta has grown over its supporting capacity^{1,2}. The population growth rate reached 1,05% per year³ and made Jakarta a city with the highest population density in the South East Asia⁴. In 2017, the population density was 15.663 people per square kilometers⁵.

One of the factors that promote the high population growth in Jakarta is urbanization. The net migration rate in Jakarta reached 946.183 people in 2015⁶. The migration was driven by economic and social appeal⁷. The economic factor is the main reason why people migrate to Jakarta due to its status as the center of economy in Indonesia⁸.

Given the limited land in Jakarta, the competition for land uses such as for housing is critically high⁹. The growth of residential properties is not comparable to the demand, causing expensive property prices in Jakarta¹⁰. Consequently, the citizens especially the poor are hard to afford a proper place to live¹¹.

Consequently, these poor people grab lands that are forbidden to be built as residential areas, such as riverbanks, land under bridges, and land along train railways¹². As these areas are not well regulated, the illegal and slum residential areas are growing at any corner of Jakarta^{13,14}. These areas are prone to flooding¹⁵, social conflicts, and high health risks¹⁶.

To overcome this issue, Jakarta Provincial Government initiated a controlling measure through resident relocation scheme. The scheme relocates the residents from illegal areas to flats¹⁷. Given the lack of land in Jakarta, a vertical building is considered the best solution¹⁸.

Living in a flat which offers a better environment and facilities are expected to improve the life quality of the residents, particularly the children¹⁹. However, these changes are not easy to carry out for the children.

Psychologically, children need some times to adapt to the changes in physical and social surroundings²⁰. Moreover, the physical surrounding changes are quite significant in terms of residential models, from horizontal to a vertical residence. When the adaptation fails to run smoothly, it will affect the children's growth and intellectuality²¹.

Improving the quality of life of children in the relocation scheme must be the main concern of the government. The flats must be children-friendly. For instances, they have playgrounds and health and counseling facilities and are close to the education center. However, those concerns are frequently neglected during the development of the flats.

This research tries to find the determinant factors of the quality of life of the children who are relocated to the flats. The aims of this research are to analyze the quality of life of the children

and the correlation between the quality of life of children and the determinant factors such as the pattern of nutrients intake of children, the education of the head of a family, the household income, and the number of family members.

METHODS

Study Location

There are three flats in Jakarta that become the relocation places: (1) Flat Marunda, Cilincing, North Jakarta, (2) Flat Rawa Bebek, Cakung, East Jakarta, and (3) Flat Jatinegara Barat, Jatinegara, East Jakarta.

Samples of Study

The samples of this research are the children in the range of age 7-13 years who live in the flats and are the children of the family relocated by the Jakarta Provincial Government. The samples consist of 150 samples which are developed based on family. There are two steps in determining the sample. First, identifying flats for study location. Second, identifying the household and the child. This research sets the sample as much as 30% of the total population. The sampling technique is systematically random sampling.

Indicators for Quality of Life of Children

The measurement of the quality of life of the children in this research uses the Kid-KINDL^R questionnaire. It is relevant to be used to measure the children's quality of life due to its flexibility to reach any children's condition. The Kid-KINDL^R questionnaire is frequently adopted in many research's related to the quality of life of children^{22,23}.

The Kid-KINDL^R questionnaire used in this research is the Kid-KINDL^R of children aged 7-13 years. There are six dimensions were measured: (1) physical well-being, (2) emotional well-being, (3) self-esteem, (4) family relationship, (5) friend's relationship, and (6) everyday functioning in school²⁴.

Method of Measurement and Analysis

The measurement of the quality of life of children in this research uses the Z-score method. The Z-score is used to find more details of the extent of the position of an object from the average value measured from the standard deviation. Moreover, the Z-score can also find the position of a score in a distribution. The position in distribution is shown with the symbol +/- that shows that it is positive (Z-score > 0) if it is above the average and negative (Z-score < 0) if it is below the average²⁵. In this research, the Z-score > 0 shows a good quality of life while Z-score < 0 shows a poor

quality of life. Further, the measurement result is connected to the determinant factors of the quality of life of the children that consist of the pattern of nutrients intake of children, the education of the head of the family, the household income, and the number of the family members.

Ethical Considerations

This research was granted permission by the Jakarta Provincial Government and Universitas Pembangunan Nasional (UPN) Veteran Jakarta-Indonesia. All respondents have explained the objectives of the study and secured written informed consent from participants prior to data collection. Ethics clearance was obtained from Ethics Committee Universitas Pembangunan Nasional (UPN) Veteran Jakarta-Indonesia with the study protocol code of No: B/1582/VIII/2018/KEPK.

RESULTS

Table 1 reveals the socio-demographic characteristics of the respondents. The result of the univariate analysis shows that the proportion respondents by location are: 38.7% of them live in Merunda Flats, 36.0% of them live in Jatinegara Barat Flats, and 25.3% of them live in Rawa Bebek Flats. The proportion of respondents based on indigenous people category (Betawi) is 37.3%, while non-indigenous people are 62.7%. Based on sex, 41.3% are male and 58.7% are female. Most (71.3%) of the respondents aged 7-10 years and 28.7% of them aged 11-13 years. Based on a number of family members, the majority (61.3%) is 5 and above, while a number of family members of 1-4 people are 38.7%.

Regarding the education of the head of the family, the majority (79.3%) of respondents are junior and senior high school, while 16.7% of them are primary school and 4.0% is a university. Regarding the education of mother, the majority (75.3%) of respondents are junior and senior high school, while 21.3% of them are primary school and 3.3% is a university. Most (74.0%) of respondents aged 25-45 years and 26.0% aged 46 years and above. Based on the work of the head of the family, 86.7% are working and 13.3% are unemployed.

Regarding income of the head of the family per month, 30.0% of respondents have income USD 245.0 and above, 24.0% of them have income USD 126.0-209.9, 23.3% of them have income USD 210.0-244.9 and 22.7% of them have income USD 0.0-125.9.

Table 1: Socio-demographic characteristics of the respondents (n=150)

Characteristics	N	%
Location		
Merunda flats	58	38.7
Jatinegara Barat flats	54	36.0
Rawa Bebek flats	38	25.3
Indigenous peoples		
Yes	56	37.3
No	94	62.7
Sex		
Male	62	41.3
Female	88	58.7
Age of the child (years)		
7-10	107	71.3
11-13	43	28.7
Number of family members		
1-4	58	38.7
5 and above	92	61.3
Education of the head of family		
Primary school	25	16.7
Junior and senior high school	119	79.3
University	6	4.0
Education of mother		
Primary school	32	21.3
Junior and senior high school	113	75.3
University	5	3.3
Age of the head of family (years)		
25-45	111	74.0
46 and above	39	26.0
Work of the head of family		
Work	130	86.7
Unemployment	20	13.3
Income of the head of family per month		
USD 0-125.9	34	22.7
USD 126.0-209.9	36	24.0
USD 210.0-244.9	35	23.3
USD 245.0 and above	45	30.0

The measurement results of the children's quality of life in three flat locations varied. Children who live in Merunda Flat have a better quality of life compared to children who live in other flats. This can be seen from the proportion of children who have Z-score > 0 are higher compared to the Z-score < 0. The proportion of the children with Z-score > 0 is 56.9% while Z-score < 0 are 43.1% (mean = 92.58 and SD = 10.17). This means that 56.9% of children have a better quality of life.

In other two flats, the Jatinegara Barat and Rawa Bebek flats, the proportion of the children who have Z-score > 0 is lower than those with the Z-score < 0. In Jatinegara Barat Flat, the proportion of children with Z-score > 0 is 38.9% while Z-score < 0 is 61.1% (mean = 89.90 and SD = 8.24). In Rawa Bebek Flat, the proportion of children with Z-score > 0 is 47.4% while Z-score proportion of those with Z-score < 0 is 52.6% (mean = 91.92 and SD = 10.26).

In total, the proportion of the children with Z-score > 0 is 48% while Z-score proportion of those

with Z-score < 0 is 52% (mean 91.45 and SD = 9.55). There are still many proportions of the children with poor quality of life compared to those who have a good quality of life in these flats.

When looking at the assessment results based on the dimensions of the quality of life, the physical well-being of all children in the three flats is better compared to the other five dimensions. The proportion of children who have Z-score > 0 in the physical well-being dimension is 60.7% (mean = 15.95 and SD = 2.57). Another prominent dimension is everyday functioning in school, the proportion of children who have Z-score > 0 is 56.0% (mean = 14.87 and SD = 2.71). However, this dimension was found to be lower in Rawa Bebek Flat with the proportion of children who have Z-score of 47.4% (mean = 14.07 and SD = 3.02). Meanwhile, the dimensions of the family relationships are the worst, the proportion of children who have Z-score < 0 is 51.3% (mean = 15.31 and SD = 2.36). The results of the detailed assessment can be seen in Table 2.

Table 2: The assessment results of the quality of life of children based on the flats dimension and location (n=150)

Location	Dimensions						Quality of Life (QoL)
	Physical well-being	Emotional well-being	Self-esteem	Family	Friends	Everyday functioning in school	
Merunda Flats							
• N	58	58	58	58	58	58	58
• Mean	15.34	16.12	15.81	15.24	14.93	15.13	92,58
• SD	2.49	2.75	2.90	2.38	2.05	2.67	10.17
• Z-score > 0	53.4%	62.1%	58.6%	48.3%	62.1%	56.9%	56.9%
• Z-score < 0	46.6%	37.9%	41.4%	51.7%	37.9%	43.1%	43.1%
Jatinegara Barat Flats							
• N	54	54	54	54	54	54	54
• Mean	15.09	15.42	14.77	15.50	13.96	15.14	89.90
• SD	2.31	2.24	2.89	2.32	2.34	2.46	8.24
• Z-score > 0	40.7%	57.4%	46.3%	51.9%	33.3%	61.1%	38.9%
• Z-score < 0	59.3%	42.6%	53.7%	48.1%	66.7%	38.9%	61.1%
Rawa Bebek Flats							
• N	38	38	38	38	38	38	38
• Mean	16.07	16.31	15.47	15.15	14.81	14.07	91.92
• SD	2.67	2.69	2.77	2.42	2.69	3.02	10.26
• Z-score > 0	65.8%	63.2%	50.0%	44.7%	60.5%	47.4%	47.4%
• Z-score < 0	34.2%	36.8%	50.0%	55.3%	15.3%	52.6%	52.6%
Total							
• N	150	150	150	150	150	150	150
• Mean	15.44	15.95	15.35	15.31	14.55	14.87	91.45
• SD	2.49	2.57	2.88	2.36	2.36	2.71	9.55
• Z-score > 0	52.0%	60.7%	52.0%	48.7%	51.3%	56.0%	48.0%
• Z-score < 0	48.0%	39.3%	48.0%	51.3%	48.7%	44.0%	52.0%

The relationship of determinant factors to the quality of life of children shows a positive correlation on three factors, namely household income, education of the head of the family, and the pattern of nutrient intake of the children. The greater the household income, the better the quality of life of the children ($r = 0.070$, $p = 0.401$). Likewise, the education of the head of the family, children with a well-educated head of the family have a good quality of life compared to children with a low-educated head of the family ($r = 0.058$, $p = 0.478$). Furthermore, children who demonstrate a good pattern of nutrient intake are proven to have a good quality of life ($r = 0.053$, $p = 0.518$).

On the other hand, the factor of the number of family members shows a negative correlation. The number of family members is the worse the quality of life of the children ($r = -0.088$, $p = 0.284$). It can be seen more clearly in figure 1.

DISCUSSION

The resident relocation from the illegal housing and slum areas to the flats have not yet given any impacts towards the improvement of the quality of life of children. The results of the research show that 52% of the children assessed have a poor quality of life. This occurred because the construction of the flats is not properly designed for the children.

The concept of vertical building with a small number of playgrounds is one of the reasons why children lose the opportunity to play and interact socially. Whereas, the good environment and social interaction are some of the factors that support the growth of the children and strengthen the intelligence and emotional skills of the children^{26,27}.

Besides, the area of occupancy in the flat is very small, which is 5x6 meters per unit with the average family members of 5-6 people, the ratio of per capita occupancy is far from proper. When a family lives in a cramped house, the social interaction among family members become worse²⁸ and it affects the quality of life^{29,30}.

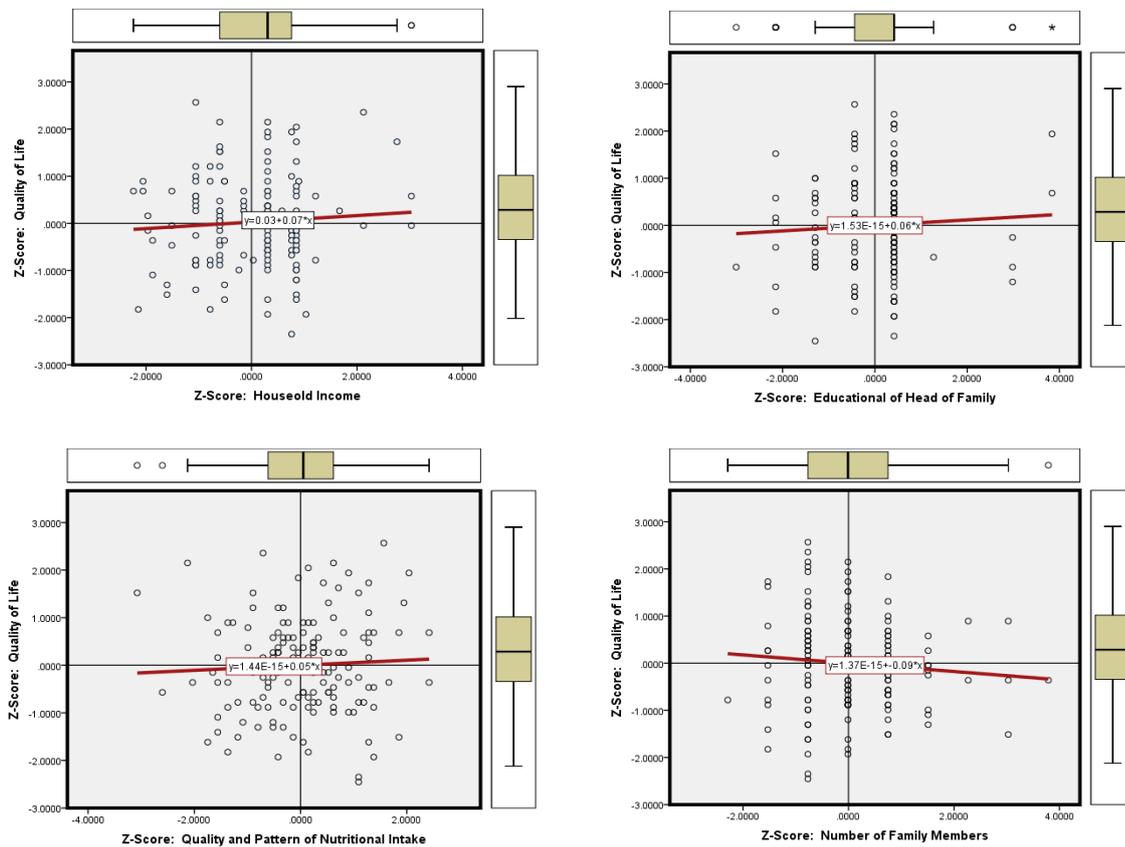


Figure 1: Correlation between the Quality of Life of Children and the Determinant Factors (n=150)

The relocation policy is a strategic breakthrough in spatial planning in Jakarta. However, the government should not only be focused on improving spatial planning but also designing the concept of flats that is suitable for children. This has not been a priority in flats development.

This happens because the construction of the flats is not designed to support children development. Therefore, flats managers must add facilities in the form of playgrounds and proper social interaction spaces for children's activities. Other supporting facilities such as library and counseling facilities as well as health facilities need to be added to support the children's knowledge and mentality.

Beside the factor of occupancy eligibility, the quality of life of children is also influenced by the socio-economic conditions of the family and the pattern of nutrient intake. Children from a family with high-income have a good quality of life. This happens because the high-income family has the ability to provide better basic needs for children³¹. So that children feel comfortable with these conditions.

The education of the head of the family also determines the quality of life of the children. Well-educated heads of the family have children with good quality of life. This is because the educational background makes the heads of the family have more empathy towards the needs of their children. The social interaction in the family

is also better because the heads of the family can protect the children well³².

Lastly, this research found that children with good quality and pattern of nutrient intake have a good quality of life. This is because the quality and pattern of the nutrient intake determine the children's health³³. Children with good quality and pattern of nutrient intake have a low risk of getting sick³⁴. Hence, their growth is good. Children with good growth have a good quality of life. Therefore, the children who live in flats must get good quality and patterns of nutrient intake. They must get a nutrition improvement program which is included in "Program Keluarga Harapan" (PKH). This program is one of the government programs to improve the welfare of the poor in Indonesia.

CONCLUSIONS

From this research, it can be concluded that the relocation of residents by the Jakarta Provincial Government from illegal housing and slum areas to flats has not been able to improve the quality of life of children. Flats do not provide good space for child development. Furthermore, the socio-economic factors and family nutrition intake greatly influence the quality of life of children. One thing that needs attention is the quality and nutrient intake of the children. This factor determines not only the quality of life of children but also plays an important role to support the health, growth, and intelligence of children.

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