IMPROVING ELDERLY'S QUALITY OF LIFE THROUGH FAMILY ROLE

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Article Info

Abstract

Every human is getting old and we must attempt to be happy in the old time. The problem is 17.5% of elderly people have poor quality of life and 62.5% are sufficient. Elderly at this level needs immediate intervention because it will be a burden for families. communities and governments. This study aims to analyze the family participation on improving the quality of life. An observational study with cross sectional approach with population study at Posyandu Lansia Mekar Sari Surabaya. We used purposive sampling method. We took 54 samples elderly aged ≥ 60 years out of 96 elderly who enrolled in Posyandu year 2016. Data were obtained from WHOQoL-BREF and family role questionnaire. We analyzed the data with Rank Spearman's Correlation. There was a positive correlation between the family role and the quality of life (p=0.000.. r=0.568). mainly by environmental domain (p=0.000. r=0.561). psychological domain (p=0.008. r=0.358). and social relations domain (p=0.011. r=0.345). but not for physical domain (p=0.154. r=0.917). The family participation such as adaptation. partnership. growth. affection. and resolve could be one method to improve the quality of life of elderly. Every increasing family value would add up to 26.3-43.2% assessment the quality of life.

Introduction

Every human will be getting old; it is a last step of life cycle before death. Elderly. according to Indonesian Law Number 13 Year 1998 about Elderly Welfare. is someone who has 60 years of age or more.

Elderly population in Indonesia is increasing each year. It is shown at elderly statistical number in 2010-2014 which increased from 18.04 millions to 20.24 millions people. Based from online site of Central Bureau of Statistics. this increment will continue happen if we look into Indonesian people pyramid. In year 2020. it is estimated there are 28.8 miliions elderly (Yuzefo. 2015).

This increment closely related to development success. especially with health quality and socio-economy improvement of Indonesian people. Increase number of life expectancy also impact on elderly. the older the people. more problem of her/his health. including physical and mental disability. socio-economy helplessness. sexual problem. and adaptation problem of getting loss. Those problems will impact on their quality of life (Padila. 2013).

Recent condition shows elderly considered as susceptible group and become a burden for the family. society. and country. Uncertainty of economic status. health problem. and poor quality of life are biggest problems which become main focus in elderly (Kementrian Kesehatan RI. 2016).

Every human being will experience

both internal and external changing during aging process. The law of 1% stated that each organ functions will decrease 1% each year after 30 years old. Svanborg et al. stated that this decrement will drastically decrease after 70 years old (Darmojo. 2014). It can be seen anatomically and physiologically. such as decrease of sense function. musculoskeletal problem. sleep problem. psychology problem. etc. These will be beginning of social. economy. mental. and physical impact in elderly. The more the age of elderly. they will more susceptible in physical complaints. either because of natural or disease. Hence. aging process is commonly followed by decreasing quality of life (Sutikno. 2011).

According to World Health Organization Quality of Life (WHOQOL). quality of life is individual perception of their cultural and moral life in society related to goal. expectation. standard. and interest. There are 4 domains of quality of life. which is physical health. psychology. social interaction. and environment (Khairani. 2017). It is affected by physical health. psychology. freedom. social interaction. and elderly's living environment (Yuliati. 2014). More than 85% elderly live in shore and urban area of Surabaya with his/her spouse. child. in-law. or other family as one family. they have expectation of safe living. comfort. and assurance of elderly care (Yuliastuti. 2017).

There are 2 family culture concepts for the presence of elderly. old and new ones. The old concepts still strongly focus on eastern value which the elderly put their expectation to be care by their child soon in their old age. Those become part of child's responsibility and returning the favor. This concept commonly applied by Indonesian people. While the new concepts which developing nowadays. oriented in practical proportionally. meaning the elderly need to change their social live competitively so they will survive to live independent until the rest of their life. This new ones is more embraced by pre-elderly people (Ryadi. 2016).

Based on those concepts; family need to become main supporter for elderly in maintaining better quality of life. Their role for elderly is caring. giving motivation. maintaining and increasing mental status. anticipating socio-economy change. and facilitating spiritual needs (Padila. 2013). However. every family has their own different dynamics. Some families are not give excessive protection for elderly so it will physically and mentally disadvantage them.

There is not much study about family role for increasing elderly's quality of life. Sutikno (2011) study in Kediri resulted there was significantly relationship between family role and elderly's quality of life. Elderly who lived in healthy family have better chance of quality of life about 25 times. It was not explain which family role and domain of quality of life that increased. Based on those problems. our study aimed to explain improvement of elderly's quality of life through family role.

Methods

We used observational analytic study with cross sectional approach to explain family role towards elderly's quality of life. Our study conducted in Posyandu Lansia Mekar Sari. RW V Mojo. Gubeng Districts. Surabaya City Year 2016. There were 96 elderlies who have been registered at Mekar Sari Elderly Posyandu. Samples were taken by purposive sampling technique. We got 54 elderlies who met inclusion criteria (60 years of age or more. live with family) and exclusion criteria (have no stroke. dementia. Parkinson. also in last 4 weeks there is no loss events of his/her family. bestfriend. residence. pets. or other depress events).

Primary data was collected using in-depth interview with elderly. We rated variable of family role using family function questionnaire that consist of 20 questions and it has 5 components. that is adaptation. partnership. growth. affection. and resolve (Coef validity 0.522-0.870; Cronbach's Alpha 0.931; r table 0.444). Whereas assessment of quality of life done using WHOQOL-BREF Bahasa Indonesia version which consist of 26 questions. 2 of them about general quality of life. and other 24 questions includes 4 domains. that is physical health. psychology. social interaction. and environment (Coef validity 0.526-0.802; Cronbach's Alpha 0.937; r table 0.444). Data processing was done by editing. coding. entry. and tabulation using IBM SPSS Stastistics series 22. We used Rank Spearman Test correlation statistical test.

We kept ethics principle of Information

for Consent. Informed Consent. Anonymity. Confidentiality. Veracity. and Non Maleficence. We met ethical clearance. Permission has been granted from Bureau of Political Nation Unity and Society Protection. City Health Office. Puskesmas Mojo. and Mojo Village Surabaya.

Results and Discussions

Table 1 showed there were more female (90.7%) and elderly age (87%) at Posyandu Lansia Mekar Sari Mojo Surabaya. It was cause by higher age of expectancy in female than male so the number of female 3 times more than male. elderly who has 75 years of age is susceptible to get physical disability and dead so as cannot attend our study. male elderly still works as head of family because of family's income limitation. Education status data showed that 3 of 4 elderlies were categorized as low education status that was not pass junior high school or higher education. It was similar to Yuliastuti which result more female elderly and low number of higher education (Yuliastuti. 2017).

Description of assessment for elderly's family role using family function questionnaire (Adaptation. Patnership. Growth. Affection. and Resolve) can be shown at Table 2 below:

Tabel 2 showed well distribution of family role for elderly at Posyandu Lansia Mekar Sari Mojo Surabaya between 30-39% in sufficient. well. and very well score. We assessed family role by looking presence of support. communication. sharing way. acceptance. self improvement. love. friendship. and coherence.

We found no poor and very poor family role in our study. only 31.5% which categorized as sufficient score of family role that need attention. It is need for intervention for family with those score because it can be change to poor score soon. Similar results were found by Anita (2013) in Bantul Yogyakarta. which only found 13.3% family with low category in assessment of family role. Anita only categorized into well. sufficient. and low category.

Both conditions showed Asian cultural concept pattern (old concept) about elderly

Table 1. The Characteristics of Elderly in Posyandu Lansia Mekar Sari Mojo Surabaya

Characteristics	Number of elderly n=54
Sex. n (%)	
Female	49 (90.7%)
Male	5 (9.3%)
Age Categorization. n (%)	
Elderly. if 60-74 years of age	47 (87%)
Old. if 75-90 years of age	7 (13%)
Very Old. if >90 years of age	0 (0%)
Education tatus. n (%)	
Not educated and not pass elementary school	19 (35.2%)
Pass junior high school / equal	21 (38.9%)
Pass senior high school / equal	12 (22.2%)
Pass higher education / equal	2 (3.7%)

Source: Primary Data

Table 2. Assessment of Elderly's Family Role at Posyandu Lansia Mekar Sari Mojo Surabaya

Assessment of Family Role in Family Environment	Frequency	Percentage
"Very Poor" family role (score 85-100)	0	0%
"Poor" family role (score 69-84)	0	0%
"Sufficient" family role (score 53-68)	17	31.5%
"Well" family role (score 37-52)	21	38.9%
"Very Well" family role (score 20-36)	16	29.6%
Total	54	100%

Source: Primary Data

Table 3. Description of Elderly's Quality of Life According to WHOQoL Bref (P1-P26)

Assessment of Elderly's Quality of Life	Frequency	Percentage
"Very Poor" elderly's quality of life (WHOQoL score > 88)	0	0%
"Poor" elderly's quality of life (WHOQoL score 73-88)	0	0%
"Sufficient" elderly's quality of life (WHOQoL score 57-72)	11	20.4%
"Well" elderly's quality of life (WHOQoL score 41-57)	20	37%
"Very Well" elderly's quality of life (WHOQoL score 26-40)	23	42.6%
Total	54	100%

Source: Primary Data

Table 4. Description Per-Domain of Elderly Quality of Life

Domain	Quality of Life Assessment Criteria (WHOQoL Bref)				
	Very poor	Poor	Sufficient	Well	Very well
Physical (P3. P4. P10. P15. P16. P17. P18)	0 (0%)	0 (0%)	11 (20.4%)	16 (29.6%)	27 (50%)
Psychological (P5. P6. P7. P11. P19)	0 (0%)	0 (0%)	8 (14.8%)	29 (53.7%)	17 (31.5%)
Social Relationships (P20. P21. P22)	0 (0%)	2 (3.7%)	19 (35.2%)	27 (50%)	6 (11.1%)
Environment (P8. P9. P12. P13. P14. P23. P24. P25)	0 (0%)	2 (3.7%)	16 (29.65%)	20 (37%)	16 (29.65%)

Sumber: Data Primer

caring which is more adapted by Indonesian people. However. this concept is starting to change into practical orientation concept for further generation. pre-elderly group (Ryadi. 2016).

Description of elderly's quality of life according to WHOQoL Bref questionnaire at Posyandu Lansia Mekar Sari Mojo Surabaya can be shown at Table 3 below:

Table 3 explained most of elderlies in our study categorized as very well score of quality of life (42.6%) and well (37%). although there was sufficient quality of life as much as 20.4%. These results are in-line with respondent's perception of their own quality of life in direct question.

Elderly in Posyandu Mekar Sari Mojo Surabaya were satisfied (44.5%) and were very satisfied (66.7%) with their quality of life subjectively. However. 33.3% of them were feeling mediocre. Pradono (2009). Sutikno (2011). and Yuzefo (2015). researches from year to year showing the same results with the beginning results of this study in early elderly respondents. Over time. with increasing age. there will be many changes in the way of life such as loneliness and feel aware of death. solitary life. a change in economic terms. chronic illness. weaker physical strength. mental changes. psychomotor skills diminish. psychosocial changes such as pension. lose their source of income. loss of a spouse and friends.

as well as the loss of employment and loss of activity that can affect their quality of life.

There were 44.4% of respondents who have a bad to mediocre perception of their health condition.

Descriptive analysis of each domain in assessing the elderly quality of life was presented in Table 4.

Table 4 explained that all domains of the elderly quality of life assessment criteria in Posyandu Mekar Sari Mojo Surabaya were already on well and very well categories. although there are (14.8% - 35.2%) votes of sufficient category in physical. psychological. social relations. and environmental domains. This study also showed poor assesment (3.7%) in social relationships and environment domains.

This situation explained that the first domain of quality of life experiencing disturbance in elderly were environmental domain and social relations domain. including personal relationships. social relationships and social support. sexual activity. freedom. security and physical safety. health and social care (accessibility and quality). home environment. opportunity to obtain information and learn new skills. participation and opportunities for recreation or have spare time. physical environment (pollution. noise. traffic. climate). as well as transportation. Rohmah's study (2012)

Table 5. Analysis of Family Role and Elderly Quality of Life

Family Role Categorization	Quality of Life Categorization					P	r
	Very Poor	Poor	Sufficient	Well	Very well		
Sufficient	0 (0%)	0 (0%)	6 (35.3%)	9 (52.9%)	2 (11.8%)		
Well	0 (0%)	0 (0%)	5 (23.8%)	8 (38.1%)	8 (38.1%)	**0.000**	**0.568**
Very well	0 (0%)	0 (0%)	0 (0%)	3 (18.7%)	13 (81.3%)		
Total	0	0	11	20	23		

Sources: Primary Data

Table 6. Family Role Analysis with Every Domain of Elderly Quality of Life

Family Role Categorization	Criteria Assessment of the Quality of Life (WHOQoL Bref)					P	r
	Very Poor	Poor	Sufficient	Well	Very well		
Physical Domain							
Sufficient	0 (0%)	0 (0%)	6 (35.3%)	4 (23.5%)	7 (41.2%)		
Well	0 (0%)	0 (0%)	4 (19%)	6 (28.6%)	11 (52.4%)	0.154	0.917
Very well	0 (0%)	0 (0%)	1 (6.25%)	6 (37.5%)	9 (56.25%)		
Psychological Domain							
Sufficient	0 (0%)	0 (0%)	5 (29.4%)	9 (53%)	3 (17.6%)		
Well	0 (0%)	0 (0%)	3 (14.3%)	12 (57.1%)	6 (28.6%)	0.008	0.358
Very well	0 (0%)	0 (0%)	0 (0%)	8 (50%)	8 (50%)		
Social Relationship Domain							
Sufficient	0 (0%)	1 (5.9%)	9 (52.9%)	6 (35.3%)	1 (5.9%)		
Well	0 (0%)	1 (4.7%)	6 (28.6%)	14 (66.7%)	0 (0%)	0.011	0.345
Very well	0 (0%)	0 (0%)	4 (25%)	7 (43.8%)	5 (31.2%)		
Environmental Domain							
Sufficient	0 (0%)	1 (5.9%)	10 (58.8%)	5 (29.4%)	1 (5.9%)		
Well	0 (0%)	1 (4.6%)	5 (23.8%)	10 (47.6%)	5 (23.8%)	0.000	0.561
Very well	0 (0%)	0 (0%)	1 (6.2%)	5 (31.3%)	10 (62.5%)		

Sources: primary Data

suggested that environmental factors and social relationships had a strong significance to the quality of life in the elderly. especially early elderly.

Analysis of the role of family and elderly quality of life of Posyandu Mekar Sari Mojo Surabaya can be seen in Table 5.

Rank Spearman correlation test statistical test results obtained value P= 0.001 so it could be concluded that there was a significant correlation relationship (r=0.548) between the role of the family with quality of life of the elderly. with Confidence Interval of 95% (α 0.05). This result meant that the better the role of the family in which the elderly live would be related to their quality of life improvement. It could be seen from the increased value by 26.3% - 43.2% in the excellent category of the elderly quality of life. from 11.8% to 38.1% (an increase of 3.2 times) and of the number 38.1% to 81.3% (an increase of 2.1 times).

The result of this study was in line with the study by Sutikno (2011). and Anita (2013). This meant that the family played an important role in determining the elderly bio-psycho-social health condition that ultimately concerned with the welfare of their lives (Yuliati. 2014). The elderly quality of life was influenced by several factors causing the elderly to keep handy in their old age. such as the ability to adapt and accept all the changes and setbacks experienced as well as the award and the fair treatment of the environment and the family (Sutikno. 2011).

Next. the statistical test was performed between the roles of families against each domain in the value of the elderly quality of life in Posyandu Mekar Sari Mojo Surabaya. Cross

tabulations and statistical test of family role with each domain of quality of life can be seen in Table 6.

Rank Spearman test correlation statistical test result on the psychological domain (p=0.008). and the social relationships domain (p=0.011) showed value <0.005. but on the environmental domain. the value was >0.005. It could be concluded that there was a significant correlation relationship between the role of the family with psychological domain (r=0.358). social relationships domain (r=0.345). and the environmental domain (r=0.561). There were no correlation between family role adn physical domain of elderly quality of life. These results had a meaning that the better the role of the family in which the elderly live will impact on the increase in value on the psychological domain. social relationship domain and environment domain of the elderly quality of life. but not in the physical domain.

It was in line with the Silverstein (2010). thinking that the most dominant family functions were psychological functions. This function showed the relationship between family members and whether the family was able to solve a problem together. Psychological of the elderly themselves will be influenced by the role of family members. Likewise. the family also has the function of human relationships. Human relationship function in question was how good or bad the interaction between family members was.

According to Friedman. socialization function and sociable place located on the family function was a function to develop and train the child in social life before leaving the house to connect with others outside the home (Hidayah. 2013).

Family functions according to Law No. 10 in 1992 and presidential law No. 21 in 1994 had the function of preserving the environment. namely fostering awareness. attitudes. and practices of the family's internal environmental preservation. family external environment. Environmental conservation practices should be harmonious. and balanced between the family and the surrounding community environment. so that the pattern of family life environment towards "Keluarga Kecil Bahagia Sejahtera" (Hidayah. 2013). The family was also

the place to establish communication. Family harmony depends strongly to the quality of interpersonal communication (interpersonal relationships) which were built into everyday life at home. The quality of interpersonal communication would provide a considerable influence on the behavior of each individual in the end as a determinant of happiness in life (Nisfiannoor. 2005).

Based on the results of this statistical test. it turns out the most dominant family roles was associated with the environmental domain of the elderly quality of life values. It could be seen from the increased from 17.9% - 38.7% in the very well quality of life category of environmental domain. from 5.9% to 23.8% (an increase of 4 times) and from 23. 8% to 62.5% (increase of 2.6 times). while the increase in the psychological domain only 11% - 21.4% and social relationships domain 25.3%.

Statistical test result of the family role with physical health domain showed that there was no correlation found since a decrease in biological function in humans was a definite stages of the aging process (Ekowarni. 2012). whereas the psychological. social relationships and environmental domain could be modified with various efforts. Tajvar (2008). research in Iran stated that the physical domain was a very strong influence in determining the quality of life. One Percent Law stated that organs function will be decreased by 1% each year after age 30 is a picture of the body's physical abilities decline of certainty (Darmojo. 2014). Decreased organ function could cause a variety of non-communicable diseases such as stroke. kidney failure. hypertension. asthma. thyroid disorders. and others. Endarti (2016). said that non-communicable disease had a strong significance led to a decrease in somebody's quality of life. Physical limitations due to illness were in need of social support from family to retain a good quality of life. especially in chronic diseases (Luttik. 2006).

Constantinides stated that aging was a slow disappearance process of the network's ability to improve or replace themselves and maintain their normal structure and function so it couldn't withstand lesion (including infections) and repair the damage suffered (Darmojo. 2014). The aging process would have

an impact on various aspects of life. be it social. economic. and health. On the health aspect. the increasing in age of the elderly. they would be more susceptible to a variety of physical complaints either because of natural factors or because of disease (Kemenkes RI. 2016).

Seeing this certainty. the government responded with a variety of programs such as Posyandu for Elderly; Elderly-Friendly Primary Health Care; Preventive Health Care. Promotive. Curative and Rehabilitative in all health care facilities; Mental Health Services for the Elderly; Integrated Home Care Services in Society Health Care; Improvement of Health Intelligence for the Elderly; Prevention of Communicable Diseases through Posbindu PTM; Nutrition Services for the Elderly; and Health Promotion. Posyandu for elderly focuses on promotive and preventive health care efforts. Posyandu for elderly also included elderly exercise programs that would affect the physical health of the elderly. Elderly-Friendly Primary Health Care included promotive. preventive. curative and rehabilitative health care (Kemenkes RI. 2016).

Conclusion

Based on the research results. improvement in quality of life of the elderly through family role in Posyandu Mekar Sari Mojo Surabaya could be concluded that the better the role of families in which the elderly live would improve their quality of life. This increase ranged from 2.1 to 3.2 times than before. In early elderly (60-64 years). the social relationships domain and environmental domain of quality of life (WHOQoL) were first experienced interference. Meanwhile. the dominant role of the family role in improving the environmental domain and the social relations domain of quality of life of the elderly so that an increase in family roles recommended as an alternative solution to improve the quality of life in the elderly.

Acknowledgements

References

Anita. R.. Indinuasih.. Hutasoit. M. 2013. Fungsi Keluarga Baik Meningkatkan Kualitas Hidup Lansia. *Jurnal Media Ilmu Kesehatan*. 2 (3): 141-146.

Darmojo. R.. B. 2014. *Buku Ajar Geriatri*. Edisi 6. Jakarta : Balai Penerbit FKUI.

Ekowarni. E.. dan Suyata. 2012. Pengalaman Emosi dan Mekanisme Koping Lansia yang Mengalami Penyakit Kronis. *Jurnal Psikologi Fakultas Psikologi Universitas Gadjah Mada*. 39 (2): 208-221.

Endarti. AT.. dan Handito. A. 2016. The Relationship between Non-Communicable Diseases History and Health-Related Quality of Life. *Jurnal Kesehatan Masyarakat: KEMAS*. 12 (1): 120-130.

Hidayah. SN.. dan Agustini. R. 2013. Kebahagiaan Lansia Ditinjau dari Dukungan Sosial dan Spiritualitas. *Jurnal Soul*. 5 (2): 15-32.

Kementerian Kesehatan RI. 2016. *Situasi Lanjut Usia di Indonesia*. Jakarta. Pusat Data dan Informasi Kementerian Kesehatan RI.

Khairani. R. 2017. Prevalensi Diabetes Melitus dan Hubungannya dengan Kualitas Hidup Lanjut Usia di Masyarakat. *Jurnal Universa Medicina*. 26 (1): 18-26.

Luttik. M.. L.. et al. 2006. Marital Status. Quality of Life. and Clinical Outcome in Patients With Heart Failure. *Heart & Lung: The Journal of Acute and Critical Care*. 35 (1): 3-8.

Nisfiannoor. M.. Yuliati. E. 2005. Perbandingan Perilaku Agresif Antara Remaja Yang Berasal Dari Keluarga Bercerai Dengan Keluarga Utuh. *Jurnal Psikologi*. 3 (1): 1-18.

Padila. (2013). Buku Ajar Keperawatan Gerontik. Yogyakarta: Penerbit Nuha Medika.

Pradono. J.. Hapsari. D.. Sari. P. 2009. Kualitas Hidup Penduduk Indonesia Menurut International Classification of Functioning. Disability and Health (ICF) dan Faktor-faktor yang Mempengaruhinya (Analisis Lanjut Data Riskesdas 2007). *Buletin Penelitian Kesehatan*. 0 (Supplement): 40-49.

Rohmah. A.. I.. N.. Purwaningsih.. Bariyah. K. 2012. Quality Of Life of Elderly. *Jurnal Keperawatan*. 3 (2): 120-132.

Ryadi. A.. L.. S. 2016. *Ilmu Kesehatan Masyarakat*. Yogyakarta: Penerbit Andi.

Silverstein. M.. dan Giarrusso. R. 2010. Aging and Family Life: A Decade Review. *Journal of Marriage and Family*. 72: 1039-1058.

Sutikno. E. 2011. Hubungan Fungsi Keluarga dengan Kualitas Hidup Lansia. *Jurnal Kedokteran Indonesia*. 2 (1): 73-79.

Tajvar. M.. Arab. M.. Montazeri. A. 2008. Determinants of Health-Related Quality of Life in Elderly in Teheran. Iran. *Journal of BMC Public Health*. 8: 1-8.

Yuliastuti. C.. dan Anggoro. S.. D. 2017. The Overview of the Elderly Lifestyle Profile in Surabaya. *Jurnal Kesehatan Masyarakat: KEMAS*. 12 (2): 98-108.

Yuliati. A.. Boroya. N.. Ririanty. M. 2014. The Different of Quality of Life among the Elderly who Living at Community and Social Services. *e-Journal: Pustaka Kesehatan*. 2 (1): 87-94.

Yuzefo. M.. A.. Sabrian. F.. Novayelinda. R. 2015. Hubungan Status Spiritual dengan Kualitas Hidup pada Lansia. *Jurnal Online Mahasiswa Program Studi Ilmu Keperawatan*. 2 (2): 1266-1274.