

## Factor Analysis in Influencing Coping Mechanism to Elderly at Pacar Kembang Village Surabaya

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| Received: 07.05.2019 | Accepted: 18.05.2019 | Published: 30.05.2019

DOI: [10.36347/sjahss.2019.v07i05.003](https://doi.org/10.36347/sjahss.2019.v07i05.003)

### Abstract

### Original Research Article

Aging is followed by decrease in physical function and several diseases. Suffering from disease in old age will cause a dependence, helplessness, and limitations in social intercourse in the environment. This causes changes in psychosocial aspects that can cause balance disorders (homeostatic), thus, it can make the elderly underwent progressive deterioration such as confusion, panic, depression, and apathetic. This study aimed at determining the factors that influenced coping mechanism to elderly. The method of this study was correlational study that utilized cross sectional approach. Population was 105 elderlies at Pacar Kembang Village, Surabaya, East Java, Indonesia. Meanwhile, sample in this study used simple random sampling technique. Data collection was obtained by interviews through questionnaires. Data analysis used multiple logistic regression test. Moreover, the result showed that most of elderly had insufficient economic status (51%), high emotional intelligence (84%), active physical activity (66%), high self-esteem (55%), and positive social support (75%). Besides, elderlies also had adaptive coping (78%). Based on the result of multiple logistic regression test, it was found that physical activity factor was in p value = 0.025 and self-esteem factors was in p value = 0.043. It meant that there was a significant influence between coping mechanism and elderly. Meanwhile, for economic factor, emotional intelligence and social support were found that there was no significant influence between coping mechanism and elderly. All in all, researchers suggested for the elderlies that they needed an acceptance and adaptation from self changes and they needed to optimize their potency so that they would become healthy, active, and productive elderlies.

**Keywords:** Coping Mechanism, Elderly.

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## INTRODUCTION

Indonesia experiences development of very rapid elderly population. Besides, the increase of this elderly population total will have an impact against several lives. Increasing age is followed by decrease of physical function and followed disease. Disease of elderly will cause a dependence and inability for elderly, thus, the elderly will cause a limitation in having social intercourse in the environment and also will cause change of psychosocial aspect that relates to elderly personality. Elderly in psychosocial aspect was stated crisis if dependence to other people, isolating himself/herself from society activity due to several causes such as after undergoing pension period, after suffering chronic sick in quite long time, after spouse's death, and many more.

Indonesia underwent development of very rapid elderly population. Based on data from Central Bureau of Statistics, total of elderly population in Indonesia in 2010 increased to be 9,7 % from elderly total of 23,9 millions with life expectancy in 66,2 % [1].

In 2013, it increased 6,6 % from elderly total of 25 millions with life expectancy in 69 years [2]. Elderly total in Surabaya was 20.391 people at Indonesian Statistics Data. Increase of this elderly population total would impact against several lives. Main impact of this elderly increase was the increase of dependence for the elderly. This dependence was caused by physical, psychic, and social degradation of elderly that could be described through four stages, which were weakness, functional limitation, inability, and inhibition which would be occurred together with aging process [3].

Demography data of elderly population in Pacar Kembang Village showed that there were 189 elderlies (17%) from population total of 2754 people. Based on preliminary study against several elderlies at Pacar Kembang Village, it stated that anxieties from elderly which were about disease, loneliness, inability, family problem, and also psychological problem could trigger stress. Besides, the elderly sometimes also felt anxious and difficult to sleep. According to conducted research by Kuntjoro, elderly did coping by isolating

himself/herself, using emotion, and several of them got closer to religion. Psychosocial problem that could not be solved well could cause balance disorders (homeostatic), thus, it made the elderly into damage or progressive deterioration such as being confused, panic, depressive, and apathetic [4].

Based on conducted research by Kuntjoro, life events which were faced by elderly against changes, either psychological changes or social changes caused change in life. Hence, the individual must adapt, which was known as psychosocial stress. A person or elderly in overcoming stress was needed coping mechanism. Coping mechanism meant every effort was directed to stress management, including for effort in solving problem and defense mechanism for protecting himself/herself. Stuart and Sundeen stated that coping was divided by 2 (two), which were adaptive coping and maladaptive coping [4]. Positive coping strategy that was often used was asking support from others for solving problems, using adaptive coping, doing religious activity, using humor, and expressing good thing. Meanwhile, negative coping strategy that was often used was expressing. There were 4 (four) factors that influenced coping strategy. They were personal ability, material assets, positive belief, and social support. Handling problem early would help elderly in doing strategy in solving the problem and in adapting for daily activities.

Moreover, general purpose of this research was in order to analyze factors in influencing coping mechanism to elderly at Pacar Kembang Village Surabaya. Meanwhile, particular purposes were in order to : 1) Analyze economic factor against coping mechanism to elderly, 2) Analyze physical activity factor against coping mechanism to elderly, 3) Analyze emotional intelligence factor against coping mechanism to elderly, 4) Analyze self-esteem factor against coping mechanism to elderly, 5) Analyze social support factor against coping mechanism to elderly.

## METHOD

Table-1: Distribution of Elderly's Characteristic at Pacar Kembang Village Surabaya in 2018

<b>Age ( year)</b>	<b>F</b>	<b>%</b>
55-65 years	76	72
>65 years	29	18
<b>Total</b>	<b>105</b>	<b>100</b>
<b>Sex</b>	<b>F</b>	<b>%</b>
Female	83	79
Male	22	21
<b>Total</b>	<b>105</b>	<b>100</b>
<b>Pension Status</b>	<b>F</b>	<b>%</b>
Pensioner	36	43
Not Pensioner	69	57
<b>Total</b>	<b>105</b>	<b>100</b>
<b>Income/ month</b>	<b>F</b>	<b>%</b>
>2-3 million	26	25
1-2 million	42	40
≤1 million	37	35
<b>Total</b>	<b>105</b>	<b>100</b>

This research was correlational study that utilized cross sectional approach. Population in this research was all elderlies at Pacar Kembang Village, Public Health Center area of Pacar Keling Surabaya, East Java, Indonesia, which there were 134 elderlies. Sample in this research was some elderlies who domiciled at Pacar Kembang Village. Meanwhile, inclusion criteria of the sample were : 1) elderly who were > 55 years old. 2) willing to be respondent in this research, 3) Elderly could communicate well. Thus, qualified sample total was 105 elderlies. This research utilized simple random sampling technique. Independent variable in this research was: Internal and external factors to elderly. The internal factors were economic resources, physical deterioration, emotional intelligence, and self-esteem. Meanwhile, the external factor was social support. Whereas, dependent variable was coping mechanism, which was how to overcome stress or problem that was faced by elderly who underwent change of psychosocial and physical response.

Technique of data collection here utilized questionnaire which was consisted of economic factor, emotional intelligence, self-esteem, and social support and each of them was consisted of 10 items of question with answer choice in Likert scale: always, often, sometimes, never. The assessment of coping mechanism to elderly utilized Problem Focus Coping (Berorientasi pada tugas) strategy and data analysis here utilized Multiple Logistic Regression.

## RESULTS AND DISCUSSION

### General Data of Elderly's Characteristic

Most of respondents were in the age of 55-65 years (76 elderlies (72%)). Almost all elderlies (83 elderlies (79%)) were female. Based on pension status, it was obtained that most of elderlies were not pensioners (69 elderlies). Based on income, almost a half of elderlies (42 elderlies (40%)) had income in 1-2 millions which was as followed:

## Particular Data

### Factor in Influencing against Coping Mechanism to Elderly

Based on economic factor, it was obtained that most of elderly (53 elderlies (51%)) were in not enough economy. Almost all elderlies (88 elderlies (84%)) had high emotional intelligence. Meanwhile, factor of

physical activity was obtained that most of elderly (69 elderlies (66%)) had active physical activity and for social support factor, it was obtained that most of them (79 elderlies (75%)) had positive social support. While, for coping mechanism, almost all elderlies (82 elderlies (78%)) had adaptive coping mechanism and 23 elderlies (22%) had maladaptive coping mechanism. Moreover, it was based on the table below:

**Table-2: Factor Distribution in Influencing Elderly at Pacar Kembang Village Surabaya in 2018**

<b>Economy</b>	<b>F</b>	<b>%</b>
Enough	52	49
Not Enough	53	51
Total	105	100
<b>Emotional Intelligence</b>	<b>F</b>	<b>%</b>
High	88	84
Low	17	16
Total	105	100
<b>Physical Activity</b>	<b>F</b>	<b>%</b>
Active	69	66
Passive	36	34
Total	105	100
<b>Self-Esteem</b>	<b>F</b>	<b>%</b>
High	58	55
Low	47	45
Total	105	100
<b>Social Support</b>	<b>F</b>	<b>%</b>
Positive	79	75
Negative	26	25
Total	105	100
<b>Coping Mechanism</b>	<b>F</b>	<b>%</b>
Adaptive	82	78
Maladaptive	23	22
Total	105	100

### Economic Factor against Coping Mechanism to Elderly at Pacar Kembang Village Surabaya

Result of statistics test was obtained that  $p$  value = 0,518. It meant that there was no significant correlation between social economy and elderly coping. Individual could overcome stress and anxiety by activating coping source in environment. One of the coping sources was economic capital that could help individual to integrate experience which caused stress and adopted successful coping strategy from the theory perspective. Income, health, active life style, friends and family network related to life satisfaction from adult people even elderly. Elderly and economic factor almost all had adaptive coping mechanism and in small part had maladaptive coping mechanism. Meanwhile, elderly who had not enough economic factor mostly had adaptive coping mechanism and almost in a half of them had maladaptive coping.

Elderly who had low economic social status more often got negative impact from stress, thus, they were not useful. This was occurred because control for his/ her life was not strong enough. Usually, they were

less educated, hence, they were less able to solve their problems, particularly health problems. Nevertheless, in this research, economic social factor did not make elderly weak and helpless. This was caused by there was positive support from family and society.

### Emotional Intelligence Factor against Elderly Coping Mechanism at Pacar Kembang Village Surabaya

Result of statistic test was obtained  $p$  value = 0,011, which meant that there was no significant correlation between emotional intelligence and elderly coping mechanism. Data above was obtained that most of elderly who had high emotional intelligence had adaptive coping mechanism and the smallest one had maladaptive coping mechanism. For the elderly who had low self-esteem mostly had adaptive coping mechanism and almost in a half had maladaptive coping mechanism.

Emotional intelligence and coping mechanism that was undergone by the subject during in facing recent situation was a series of self process from the

subject for achieving self acceptance. Self acceptance was important aspect that concerned with achieving subjective well being for elderly. In subject perspective, the problems that they underwent was not barrier factor for efforts in achieving their happiness.

Life satisfaction was general psychological prosperity or satisfaction against whole life that was used extensively as psychological prosperity index to elderly.

#### **Physical Activity Factor against Coping Mechanism to Elderly at Pacar Kembang Village, Surabaya**

Result of statistic test was obtained p value = 0,025, which meant that there was a significant correlation between physical activity and coping mechanism to elderly. Decrease of motion function was a problem for elderly life because in the development stage of elderly, the elderly was demanded to adapt himself/herself against problem of motion function decrease that was undergone. Therefore, elderly accepted decrease condition of motion function as a normal thing along with aging process. Elderly had particular development assignment such as adaptation against decrease of physical strength and health, accepting himself/herself as elderly individual, finding way to defend quality of life.

Physical problem which was generally occurred to elderly was problem on musculoskeletal, neuromuscular, cardiopulmonary-respiratory, integumentary and sensory systems. Besides physical problem, elderly would also undergo decrease of psychic, social, and financial ability. Moreover, their survival would become family dependence or government (social institution). An elderly would undergo an obstacle or inability to do something, which meant inability to do daily activity without any help from other people, either only some was helped (easy or middle dependence) or whole dependence (hard or total dependence). Aging was often followed by decrease of life quality and in order to defend the quality of life. Elderly needed an ease in doing activity, understanding about environment of activity, and worthy health service. Furthermore, social activity was very important for elderly, thus, many or less social activity also determined whether an elderly could achieve optimum aging or not. Elderly perhaps wanted to still do social activity because elderly's physical and mental health would be guaranteed if he/ she was still life actively and had enough social intercourse (activity theory). Nevertheless, the problem was how an elderly could do his/her social activity with all of his/her lack condition? This condition that would make an elderly worse. In the other hand, the elderly wanted to be still active but condition of his/ her body, sense, and other physical conditions did not enable to do that.

Decrease of physical or biological condition, psychological condition, and social change were

occurred in elderly period. Even the society assumed as if elderly's duty had done in society. The elderly stopped working and more isolated themselves from the society which was one of characteristics in this phase.

#### **Self-Esteem Factor against Coping Mechanism to Elderly at Pacar Kembang Village, Surabaya**

Result of statistics test was obtained p value = 0,025 and it meant that there was a significant correlation between physical activity and coping mechanism to elderly. Factors that influenced self concept were disease and stressor. Disease influenced against self concept. The disease here was chronic disease and stressor was a stressor that could strengthen self concept for someone if he/ she could overcome it successfully. This stressor was known as psychosocial stressor which if it was occurred psychosocial change, it could make mental stress. Hence, for several individuals, it could cause a change in his/ her life and he/she tried to adapt for overcoming it or searching ways how to self defend (coping mechanism) in stressor condition that he/ she underwent. Self concept from the respondent influenced in coping, that self concept involved all of self perceptions, which were performance, value and belief that influenced behavior and was shown while using the word "saya" or "aku" in Indonesian language, in English was "I". There was a significant correlation between self-esteem and coping mechanism by another research. The higher the self-esteem from someone, the better the coping mechanism to elderly.

#### **Social Support Factor against Coping Mechanism to Elderly at Pacar Kembang Village, Surabaya**

Result of statistic test was obtained that p value = 0,025. It meant that there was no significant correlation between physical activity and coping mechanism to elderly. Social support could be meant as a pleasure and help which were accepted someone through either formal or informal relation with the others or. Social support was an action to help that involved aspect of emotional attention, information, instrumental help, and positive assessment. Meanwhile, Social support would really help the individual to do adaptation or positive coping behavior, personality development, and also could function as a barrier to prevent psychological impact which was a disturbance. Social support that was given by social environment could be an opportunity for telling story, asking consideration, advice, or even as a person to give a shoulder to cry on. Besides, it could be an emotional attention, instrumental help, giving information, giving achievement or giving evaluation to individual such as an achievement from his/ her social environment. Furthermore, another research said most of family motivation and coping mechanism to elderly was good (80%), meanwhile, the 20% was enough and most of elderly used both coping types, which were adaptive and maladaptive coping mechanism. In this research, there was a significant correlation between family

motivation and coping mechanism to elderly. However, social support would be really needed by elderly,

particularly after pension. Social support would reduce psychological stress and stabilize elderly's emotion.

**Table-3: Result of Multiple Logistic Regression Test from the Factor in Influencing Coping Mechanism to Elderly at Pacar Kembang Village, Surabaya in 2018**

Factors	B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
							Lower	Upper
Economy	.362	.560	.417	1	.518	1.436	.479	4.307
Emotional Intelligent	.962	.602	2.558	1	.110	2.618	.805	8.513
Physical Activity	1.181	.526	5.041	1	.025	3.259	1.162	9.139
Self-Esteem	1.086	.536	4.112	1	.043	2.962	1.037	8.462
Support	.789	.540	2.134	1	.144	2.201	.764	6.345
Constant	-5.749	1.835	9.819	1	.002	.003		

Variable(s) entered on step 1: Economy, Emotion, Activity, self-esteem, Support

From result of statistic test, it was obtained that probability value of economic factor against coping mechanism in  $p$  value = 0,518, which meant that there was no significant influence between economic factor and coping mechanism to elderly as well as with emotional intelligence factor. It was obtained  $p$  value = 0,11 and social support factor with  $p$  value = 0,144, which meant that there was no significant influence between emotional intelligence and coping mechanism. Meanwhile, for physical activity factor, it was obtained  $p$  value = 0,025 and self-esteem factor in  $p$  value = 0,043, which meant that there was a significant influence among physical activity and self-esteem factor against coping mechanism to elderly.

The higher the social support which was gotten to elderly, the lower the psychological stress for the elderly. Hence, it could create positive self-adaptation in society. Social support would make individual was respected and accepted, thus, could cause good self-adaptation in the individual personality development further[4] and conversely, the lower the social support which was gotten to elderly, the higher the psychological stress for the elderly. Thus, coping strategy that was emerged by sufferers could be isolating from social intercourse or his/her emotion would be more sensitive, hence, he/she would be easier to be offended and the sufferers would be more omitted and not respected by the environment. However in fact, there was still found to the elderly although social support was completed and coping strategy was still far from what was expected.

Many social support that was owned did not necessarily help the elderly and perhaps could be caused by ineffectiveness for individual in using support from other people. Besides, impermanence of support that was given to elderly also had role in solving problem. Based on analysis result of correlation between family support and coping mechanism to elderly at another research showed that elderly who had worse family support did coping mechanism in maladaptive category. Meanwhile, elderly who had good

enough family support did coping mechanism in adaptive category. Emotional factor also influenced belief against support and how to do that. Someone who underwent stress in the change of his/ her life tended to respond against several sickness signs and perhaps, it was done by worrying that the disease would threaten his/ her life. Someone who was generally seen very calm perhaps had small emotional response during he/ she was sick. An individual who could not do coping emotionally against a disease, perhaps he/she refused if there was symptom of disease in his/her life and would not do medical treatment. While, facing psychological problem was such as would not eat too much while being stress or anxious, avoided other people while being angry, or damaged objects around. This was enabled because their age was getting folder [5].

Elderly who had negative family support did coping mechanism in maladaptive category. Factor of their good life motivation would really help the individual in facing and solving problem [6]. Individual who did not have motivation to face and solve problem would make destructive coping. If every need was achieved, the individual was motivated to search needs in higher stage for the next, thus, the individual would have ability in solving problem. Elderly with several problems needed varied preventive action. One of problems that was faced was condition of his/ her mental health which became threatened. Besides lack of income, mostly elderly underwent loss of role and identity, position, volume and type of daily activities, status, power and authority, and also loss the relation with group or friends even self-esteem. Facing the loss process, elderly needed coping mechanism. Moreover, coping mechanism was the way that was done by individual in solving problem, adaptation with change, and response against threatened situation. Coping mechanism based on its category was divided by two, which were adaptive coping mechanism and maladaptive coping mechanism. Adaptive coping mechanism was a coping mechanism that supported integration function, growth, learning and achieving goals. Its category was speaking with other people,

solving problem effectively, relaxation technique, balance training, and constructive activity. However, coping mechanism could be adaptive and maladaptive because it was depended on internal and external factor. Internal factor was from the individual, for example in development stage, experience in past time, and personality type. Meanwhile, the external factor was from stressor that could be seen from total, character, and its duration. Besides, the external factor could be supported from the closest person.

## CONCLUSIONS

Based on the research result, it was obtained that factors in influencing coping mechanism were: economy, physical activity, emotional intelligence, self-esteem, social/ family support. Furthermore, most of elderly had positive coping mechanism. The factors which did not influence against coping mechanism were economy, emotional intelligence, and social support. Meanwhile, factors which influenced against coping mechanism were physical activity and self-esteem.

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