



## THE OVERVIEW OF THE ELDERLY LIFESTYLE PROFILE IN SURABAYA

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### Abstract

The elderly lifestyle may affect their health condition. Based on SUSENAS 2014, the number of elderly in Indonesia reached 20.24 million, with 25.05% morbidity rates, it shows that one in four elderly people have experienced some illness. This study aimed to identifying the lifestyle profile of the elderly in Surabaya. The research design used descriptive method with variable of lifestyle of 210 elderly in Surabaya. This study was conducted from June until July, 2016. The results showed that the elderly living in coastal areas having poor lifestyle (53,256 + 11,6719), while elderly living in urban areas and in nursing homes having moderate lifestyle (66,680 + 9,3923) and (62,347 + 7,8814), respectively. Poor lifestyle found in coastal areas of Surabaya was due to lacking of physical exercise and ignorance of diet pattern. Family as a major support system should provide assistance and attention.

### Introduction

Getting older is a natural process in every human being. Aging process is a regressive process and includes the organobiologic, psychological and sociocultural processes. Getting older is genetically determined and influenced by a person's lifestyle. Elderly lifestyle which is characterized by a pattern of elderly behavior will impact on the health of an individual. According to the Central Statistics Agency (BPS) in 2010, the number of elderly in Indonesia reached 23,992,552 people (9.77%) of the total Indonesia populations. Based on Indonesia Statistic Data showed that the elderly populations (60 years old and older) of East Java in 2013 as many as 3,520,927 people, with 1,501,482 in a state of good health, 1,577,826 in a state of moderate health, and 441,619 person in a state of poor health. Based on SUSENAS 2014, the number of elderly in Indonesia reached

20.24 million. Morbidity of elderly in 2014 amounted to 25.05%, indicating that one of four elderly have experienced some illness (Central Bureau of Statistics, 2015). Unhealthy lifestyle, such as fast food consumption, smoking, and lack of physical activity, can cause various diseases. Lack of physical activity is the one of risk factor of serious diseases such as diabetes mellitus, hypertension, heart disease and stroke. It is tough job to make elderly population stay healthy and it requires the cooperation of many stakeholder, i.e. the elderly themselves, their families, communities, governments, welfare organizations and observers, as well as health professional. Two most important are the active role of the elderly themselves and families in implementing healthy lifestyle.

### Method

This study used descriptive research design with the variables were elderly lifestyle

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profiles. Samples were selected by quota sampling, as many as 210 elderly were recruited from three areas in Surabaya, i.e. coastal areas (District of Bulak), urban areas (District of Wonokromo) and nursing home (Panti Werdha) (70 in each area), with inclusion criteria were not experiencing acute illness, not having mental depression and dementia. Data collection was conducted in June-July 2016 and were collected using a elderly lifestyle questionnaire. Elderly lifestyle defined as the everyday habits and behavior patterns of the elderly to interact with the environment, which includes nutrition, health, sleep, activity and sports, recreation, affection and caring, emotional, relaxation and rest, as well as health education.

Elderly lifestyle questionnaire consists of 52 items with 4 point Likert scale (never, infrequent, frequent, routine). Data processing was completed by giving a score 4 for routine, 3 for frequent, 2 for infrequent and 1 for never. Furthermore, all of the scores were summed, made into percentage, and categorized into good (76-100%), moderate (56 - <76%) and poor (<56%). Data were then analyzed descriptively.

Table 1 : Elderly Characteristics in Surabaya June-July 2016 (coastal area n=70, urban area n=70, and nursing home n=70)

No	Characteristics		Coastal area		Urban area		Nursing home	
			n	%	n	%	n	%
1	Gender	Man	26	37,1%	24	34,3%	14	20,0%
		Woman	44	62,9%	46	65,7%	56	80,0%
2	Age	50 - 55 yo	7	10,0%	2	2,9%	2	2,9%
		56 - 60 yo	33	47,1%	11	15,7%	0	0,0%
		61 - 65 yo	12	17,1%	9	12,9%	6	8,6%
		66 - 70 yo	6	8,6%	26	37,1%	16	22,9%
		71 - 75 yo	6	8,6%	15	21,4%	22	31,4%
		>75 yo	6	8,6%	7	10,0%	24	34,3%
3	Last education	Never attending school	18	25,7%	7	10,0%	21	30,0%
		Primary School	42	60,0%	17	24,3%	18	25,7%
		Junior High school	5	7,1%	24	34,3%	17	24,3%
		Senior High school	3	4,3%	19	27,1%	7	10,0%
		College	2	2,9%	3	4,3%	7	10,0%
4	Ethnic	Javanese	57	81,4%	63	90,0%	64	91,4%
		Madurese	13	18,6%	4	5,7%	1	1,4%
		Other	0	0,0%	3	4,3%	5	7,1%

## Results and Discussion

Overall, of the 210 elderly respondents in Surabaya, elderly in coastal area were characterized with average aged 56-60 years (47.1%), mostly women (62.9%), and had last education in primary school (60%). Respondents were also mostly Javanese (81.4%), Muslims (97.1%), nearly half were unemployed (41.4%), and as fishermen and entrepreneur (30%).

Elderly in urban area were characterized by average aged >66 years (68.5%), mostly women (65.7%), and had last education in junior and senior high school (61.4%). Respondents were also mostly Javanese (90%), Muslims (92.9%), housewife (55.7%) and retired (30%).

Elderly in the nursing home were characterized by average aged >66 years (88.6%), mostly women (80%), and had never attending school (30%). Respondents were also mostly Javanese (91.4%), Muslims (88.6%) and housewife (32.9%). Characteristics of respondents can be seen in Table 1.

The results showed that most of the elderly in the coastal area had poor lifestyle as many as 42 elderly (60%) (mean  $\pm$  SD 53.256  $\pm$  11.6719). In urban area, most elderly had

5	Religion	Islam	68	97,1%	65	92,9%	62	88,6%		
		Catholic	2	2,9%	3	4,3%	2	2,9%		
		Protestant Christians	0	0,0%	2	2,9%	4	5,7%		
		Konghucu	0	0,0%	0	0,0%	2	2,9%		
6	Work	Unemployed	29	41,4%	0	0,0%	11	15,7%		
		Factory worker / farmer	1	1,4%	0	0,0%	2	2,9%		
		Retiree	0	0,0%	21	30,0%	2	2,9%		
		Fisher	10	14,3%	0	0,0%	0	0,0%		
		Entrepreneur	11	15,7%	4	5,7%	13	18,6%		
		Housewife	8	11,4%	39	55,7%	23	32,9%		
		Private employee	9	12,9%	4	5,7%	6	8,6%		
		Other	2	2,9%	2	2,9%	13	18,6%		
		7	History of illness 6 month ago	No Illness	7	10,0%	10	14,3%	24	34,3%
				Cataract	2	2,9%	4	5,7%	3	4,3%
Diabetes Mellitus	3			4,3%	3	4,3%	0	0,0%		
Gout arthritis	12			17,1%	7	10,0%	4	5,7%		
Rheumatic disease	1			1,4%	2	2,9%	4	5,7%		
Cardiac disease	18			25,7%	6	8,6%	0	0,0%		
High cholesterolemia	2			2,9%	5	7,1%	0	0,0%		
Asthma	1			1,4%	2	2,9%	0	0,0%		
Pulmonary Tuberculosis	2			2,9%	0	0,0%	0	0,0%		
Other	5			7,1%	12	17,1%	19	27,1%		
More than 1 diseases	17			24,3%	19	27,1%	16	22,9%		
8	Activity level			Mild	26	37,1%	20	28,6%	39	55,7%
		Moderate	41	58,6%	48	68,6%	31	44,3%		
		Heavy	3	4,3%	2	2,9%	0	0,0%		
9	Daily dietary habit	1 time/day	4	5,7%	0	0,0%	0	0,0%		
		1-2 times/day	50	71,4%	28	40,0%	2	2,9%		
		> 3 times/day	16	22,9%	42	60,0%	68	97,1%		
10	Intake of other nutrients	Mineral water	58	82,9%	34	48,6%	12	17,1%		
		Vitamin	4	5,7%	0	0,0%	3	4,3%		
		Milk	4	5,7%	1	1,4%	13	18,6%		
		More than 1 nutrients	4	5,7%	35	50,0%	42	60,0%		
11	Food restriction	No restriction	37	52,9%	37	52,9%	44	62,9%		
		High cholesterol food	15	21,4%	14	20,0%	3	4,3%		
		High calorie food	2	2,9%	3	4,3%	3	4,3%		
		High salt food	9	12,9%	2	2,9%	0	0,0%		
		High purine food	7	10,0%	7	10,0%	6	8,6%		
		Spicy food	0	0,0%	5	7,1%	7	10,0%		

		Coffee	0	0,0%	0	0,0%	1	1,4%
		Sour food	0	0,0%	1	1,4%	1	1,4%
		Fish	0	0,0%	1	1,4%	5	7,1%
12	Religion/ social activity	No activity	9	12,9%	4	5,7%	8	11,4%
		Recitation	32	45,7%	10	14,3%	49	70,0%
		Regular social gathering	5	7,1%	0	0,0%	1	1,4%
		Community	6	8,6%	8	11,4%	3	4,3%
		Other	7	10,0%	0	0,0%	5	7,1%
		More than 1 activity	11	15,7%	48	68,6%	4	5,7%
13	Lived with	Alone	8	11,4%	8	11,4%	17	24,3%
		Wife/husband	28	40,0%	31	44,3%	4	5,7%
		Family of their son/ daughter	33	47,1%	28	40,0%	3	4,3%
		Other	1	1,4%	3	4,3%	46	65,7%
14	Home ownership	One's own	61	87,1%	63	90,0%	22	31,4%
		Son/daughter/ sibling	8	11,4%	6	8,6%	5	7,1%
		Rent	1	1,4%	1	1,4%	43	61,4%
15	Income	< 1 million	46	65,7%	29	41,4%	57	81,4%
		1-2 million	22	31,4%	14	20,0%	12	17,1%
		2-3 million	2	2,9%	18	25,7%	0	0,0%
		3-4 million	0	0,0%	8	11,4%	1	1,4%
		> 4 million	0	0,0%	1	1,4%	0	0,0%
16	Support system availability	No support	12	17,1%	8	11,4%	34	48,6%
		Son/daughter	28	40,0%	35	50,0%	27	38,6%
		Wife/husband	10	14,3%	20	28,6%	2	2,9%
		Sibling	3	4,3%	2	2,9%	7	10,0%
		More than 1 support	17	24,3%	5	7,1%	0	0,0%
17	The most frequent habit	No habit	6	8,6%	3	4,3%	3	4,3%
		Smoking	11	15,7%	2	2,9%	4	5,7%
		Exercise	13	18,6%	35	50,0%	18	25,7%
		Household activity	6	8,6%	3	4,3%	0	0,0%
		Work	4	5,7%	0	0,0%	4	5,7%
		Activity (caring for grandchildren, watching TV, etc.)	0	0,0%	1	1,4%	1	1,4%
		Travelling	4	5,7%	0	0,0%	0	0,0%
		Sleeping	4	5,7%	0	0,0%	0	0,0%
		Drinking (coffee, milk, tea)	9	12,9%	10	14,3%	17	24,3%
		Eating	13	18,6%	16	22,9%	23	32,9%
18	Habits are influenced by	Self	37	52,9%	35	50,0%	56	80,0%
		Son/daughter	11	15,7%	18	25,7%	2	2,9%
		Neighbour/friends	6	8,6%	2	2,9%	5	7,1%

		Wife/husband	14	20,0%	15	21,4%	2	2,9%
		Sibling	2	2,9%	0	0,0%	3	4,3%
		Other	0	0,0%	0	0,0%	2	2,9%
19	Perception of being elderly	Very old	22	31,4%	2	2,9%	0	0,0%
		Fate/natural life process	12	17,1%	7	10,0%	1	1,4%
		Alone, lonely	1	1,4%	2	2,9%	4	5,7%
		Happy, sincere	8	11,4%	40	57,1%	38	54,3%
		Bored, sad	8	11,4%	2	2,9%	8	11,4%
		Sick/easily fatigue, limited	11	15,7%	6	8,6%	7	10,0%
		Must pay more attention to health	1	1,4%	7	10,0%	1	1,4%
		Ordinary feeling	6	8,6%	3	4,3%	9	12,9%
		Fear of death	1	1,4%	1	1,4%	2	2,9%

Source : Primary Data

moderate lifestyle as many as 50 elderly (71.5%) (mean  $\pm$  SD 66.680  $\pm$  9.3923). While at the nursing home, mostly elderly had moderate lifestyle as many as 48 elderly (68.6%) (mean  $\pm$  SD 62.347  $\pm$  7.8814). Lifestyle characteristics of the elderly can be seen in Table 2.

Aging is a natural process and will be experienced by everyone who was blessed with long lifespan. Slow or fast of this process vary between individuals. Individual lifestyles, characterized by patterns of individual behavior, may have an impact on the individual's health and also may affect other individual health. Individual lifestyle can be modified by empowering not only the individual but also

the social environment and living conditions that affect the behavior patterns. Individual lifestyle in this world are expressed in activities, interests, and opinions. Lifestyle can influence positively or negatively, depending on how

Aging is a normal phenomenon that everybody in an advanced age will experience. The rate of aging will be quickly/slowly and is very individual. Personal lifestyle, as represented as individual behavior, will give an impact to the health status of a person and of the other people health directly. In health basics, the lifestyle of an individual can be changed by empowering not only the individual but also the social environment and living conditions

Table 2 : Elderly Lifestyle Characteristics in Surabaya June-July 2016 (Coastal area n=70, Urban area n=70, and nursing home n=70)

Elderly lifestyle profile	Coastal area		Urban area		Nursing home	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
Poor	42	60%	8	11,40%	18	25,70%
Moderate	27	38,60%	50	71,50%	48	68,60%
Good	1	1,40%	12	17,10%	4	5,70%
Total	70	100%	70	100%	70	100%
Mean $\pm$ SD	53,256 $\pm$ 11,6719		66,680 $\pm$ 9,3923		62,347 $\pm$ 7,8814	
Min-Max	31,7-78,4		43,8-87,0		44,2-87,0	

Source : Primary Data

that affecting the behavior. The lifestyle of a person is expressed as an activity, interest, and opinion. Practically, it may give positive or negative impacts to the person, depends on the characteristics of the activity. A personality theory said that the change in the elderly was very affected by their personality types. This theory disclosed sustainability in the life cycle of human. Therefore, the life experiences of a person in a period of time will describe his/her life in the elderly time. This case could be observed from the personal lifestyle, behavior, and expectancies that turn out were not changing in elderly time (Darmojo, 2014). In general, some of changes in elderly lead to regression of physical and psychological health that will affect the daily life activities.

In this study, the number of elderly subjects was 210 (70 elderly from each area). The result of the study showed that most of elderly in coastal area (District of Bulak, Surabaya) had poor lifestyle (60%), while the lifestyle of elderly in nursing home were mostly moderate (68.6%), as well as lifestyle of elderly in urban area (Village Jagir, District of Wonokromo) were mostly moderate (71.4%). The factors affecting the lifestyle of elderly were associated with the behavior patterns and habits, ranged to the issues as becoming an elderly. The issues associated with the elderly such as: some of elderly were neglected, in addition they had no life provision, occupation or income, and they were living alone. This condition was proven in coastal area that of 42 elderly people with poor lifestyle, in average they graduated elementary education (61.9%), were unemployment (42.9%) and fishermen (16.7%), also mostly had income less than Rp 1,000,000.00 per month. While, most of the elderly in urban area had moderate lifestyle, of 50 elderly people had junior high school education or higher (68%), were housewives (48%) and retirees (34%). Whereas in nursing home, most of the elderly had moderate lifestyle, of 48 elderly people had less than junior high school education (77.1%) and aged more than 71 years old (65.7%) but the life in nursing home was more certain, the needs maintained, and activities scheduled well. The development of family pattern of life, that physically tended to have a small family (nuclear family), especially in big cities,

causing the value of kinship in the lives of a large family (extended family) weakened. This research found that in the coastal areas of 42 elderly people with poor lifestyle, in average lived with children's family (47.6%), in this case the child who already had own family was possible to provide lack of attention to the behavior of the elderly, the older elderly with all his/her thought patterns could also make their own decisions for the lifestyle. While, in urban area, in average the elderly living with a partner (46%) had a pretty good lifestyle, couples will more intense remind in health, nutrition, activity, and emotional aspect. Elderly in the nursing home, living with other elderly people in the long period would possibly allow a high sense of kinship and family.

Elderly age is not only characterized by physical deterioration, but also followed by alteration of mental condition. More advanced a person's age, the social activities will be declined. This may result in less integration with the environment. This condition may affect the one's happiness. The elderly also experience fear, especially due to physical and economic dependence, chronic illnesses (e.g. arthritis, hypertension, and cardiovascular diseases), loneliness and boredom caused by feeling of unneeded.

Vascular diseases (e.g. hypertension, vascular abnormality, vascular disorder of the brain, of the kidney, etc.) and joint disorders (e.g. osteoarthritis, gout arthritis, or the other collagen diseases) were two of the four diseases that are strongly associated with the aging process. This was confirmed since 42 elderly people in coastal area had history of hypertensive heart disease (33.3%) and more than one kind of disease (26.2%), but in average elderly had no restriction in their food of choice (59.5%), even only about 11.9% of 42 elderly people who restricted foods high in salt. The changes in cardiovascular system due to aging process included the thickened and stiffening of heart valves, decreased elasticity of aorta, decreased of cardiac output, decreased elasticity of vascular wall and hypertension caused by increased peripheral resistance. Study by Arif (2013), on 54 elderly people at mobile health clinic of Klumpit Village-Gribig primary health care results the association of high salt intake

behavior with the incidence of hypertension ( $p = 0.001$ ). It is also supported by a study by Suoth (2014), on 32 respondents, the result indicates that the lifestyle, including consumption of food (0.004), physical activity (0,000), and stress (0.002) affect the occurrence of hypertension. Similarly, a study by Korneliani (2012), on 58 women aged 40-55 years old, the elementary school teacher in Kalipucang District, shows that respondents who experienced stress had the risk 6.2 times higher to gain hypertension than the less stressed respondents. We argued that in addition to avoid stress, elderly with hypertensive heart disease should be able to regulate the diet to reduce salt consumption, but this incomppliance behavior indicated the poor lifestyle. Similarly, in urban area, of 50 elderly people with good lifestyle had the history of more than one kind disease (30%). Also, 58% of them did not restrict the salt consumption. We assumed that urban area is close to the access of mall facilities and identical with the fast food of the food courts, the business of family members that also led to minimize the opportunity to cook own meals at home and tended to buy instant food outside the home, these determinants might contribute as difficulty for the elderly to control and maintain the dietary restriction. In the nursing home, 48 of the elderly with good lifestyle, as much as 35.4% had no history of diseases and 29.2% of them had more than one kind of disease, 56.2% of them had no restriction in diet, 12.5% of them had restriction in spicy diet. We assumed that beside the good controlling of the lifestyle in dietary schedule, the periodic general health examinations had been held by the owner of the home care in collaboration with primary health care contributed to the better health status of the elderly.

Lifestyle or behavior patterns of the elderly also include addressing the needs for nutrition. Fatmah (2010), explain that the nutritional needs of the elderly should be addressed adequately for the continuity of the process of cell regenerations in the body, to overcome the aging process, and to slow the biological aging. Calorie requirements of the elderly are reduced due to the reduced calorie basis as a result of physical activity. Foods contain animal fat should be reduced, for example,

beef, egg yolk, brain, and others. The elderly are advised to eat foods that contain lots of calcium ( $\text{Ca}^{2+}$ ) or phosphor. Iron should be given to facilitate the formation of red blood. Intake of sodium salt should be reduced because of the possibility of high blood pressure. The elderly should also be given fruits to earn the vitamins. Fatmah (2010), mentioned factors affecting the nutritional needs of the elderly, such as reduced ability to digest food (due to tooth decay or missing), decreased hunger or appetite, decreased taste, reduced muscle coordination, poor physical condition, economic and social factors, and food absorption factor.

Fatmah (2010), also described that carbohydrates were used by the body to perform various functions such as breathing, heart and muscle contractions, and to perform various physical activities such as sport or work. This study resulted that the elderly of coastal area had the most occasional breakfast in the morning (40%), ate 1-2 times a day (71.4%), the urban elderly regularly had a breakfast in the morning (44.3%) and ate 3 times a day (60%), while the elderly in home nursing care routinely had a breakfast in the morning (58%) and ate 3 times a day (97.1%), it explained that the eating behavior 3 times a day including breakfast was an important source of energy to start the activities. This pattern of behavior and lifestyle was well done in the urban area and nursing home despite the decline in physical activity of elderly, the need for nutrients was still required by the body to perform various functions such as breathing, heart and muscle contractions, also to perform various physical activities such as exercising or working.

Good sources of fiber were vegetables, fruits, cereals, and nuts. Eating vegetables and fruits in large amounts, had a dual function, other than as a source of fiber was also as a source of vitamins and minerals needed to maintain the health of the human body (Fatmah, 2010). This study proved that the elderly in nursing home more often consumed 3-5 servings of vegetables every day (54.3%) and more regularly ate 2-4 servings of fruit every day. We assumed that the behavior of elderly in consumption of fiber foods with vitamins and minerals was pretty good lifestyle, the lack of fiber intake would cause constipation,

hemorrhoids, appendicitis, diabetes, coronary heart disease, and obesity. Selection of protein for the elderly were particularly important due to protein synthesis in the body was not as good as in young age, and many cell damages should be replaced immediately. The protein requirement for age 40 was still the same as in previous years. However, with advanced age, it should be considered to select high quality protein content and easily digestible diet (Fatmah, 2010). Elderly in this study, almost in coastal area, urban area, or nursing home answered sometimes ate 2-3 servings of milk, yogurt or cheese each day. We found elderly in this study were able to control the consumption of protein every day. Likewise, almost the elderly in coastal area, urban area, or nursing home answered sometimes in the selection of foods low in fat and cholesterol. We assumed that the elderly should reduce the consumption of fat in the daily diet because of the predisposition of atherosclerosis. Pattern of behavior that did not consider to low consumption of fat in the daily diet servings was a factor that explains why the lifestyle of the elderly in this study was mostly poor.

Bahr in Stanley (2006), states that the largest area of interest for the elderly is improving health. One of the main aspects of improved health for the elderly is the maintenance of sleep, that is to ensure body functions recovery until optimal functional levels and to ensure he/she is awake during the day in order to accomplish tasks and enjoy a high quality of life. This study found that of 70 elderly people in each area, elderly in the coastal area only sometimes felt sufficient needs of sleep (41.4%) while elderly in urban area and in nursing home more experienced his/her sleep needs are met. This can be explained that age-associated pathological processes can cause changes in sleep patterns. Bahr also explain sleep disorders strike 50% of people aged 65 years or older living at home and 66% of people who live in long-term care facilities. This study found the elderly in urban area and in nursing house more often think of pleasure things during sleep hours. We assume elderly who realized that sometimes felt less sleep, either because of difficulty in initiating sleep or waking up during the night, these are what

affects the fatigue and sleepiness in the morning or during the day, so they need to find a way to start sleeping such as to think pleasure things or modify a comfortable environment for sleep such as dimming lights, using a jacket or blanket even socks. Physical activity can help elderly improve the quality of sleep, this is in line with research by Rohmawati (2015), which states there is a relationship between the frequency of gymnastics elderly with sleep quality in 41 elderly in Social Institutions Tresna Werdha Unit Budi Luhur, Bantul Yogyakarta.

Physical activity is the movement of the body part that cause energy expenditure which is essential for the maintenance of physical and mental health, as well as maintaining the quality of life in order to remain healthy and fit throughout the day. This study found that mostly elderly in urban area had exercise habit (50%), it could be explained that elderly in urban area (Jagir village) has integrated health post who regularly carry out sports activities or exercise, the data said that on average, they were frequently participated on the regularly scheduled exercises (65.7%), as well as in nursing home, there were sports schedule gymnastics on sunday and health walk on Saturday. Research by Suryani (2013), on 30 elderly people in the village Leuwigajah Cimahi shows the elderly have sufficient lifestyle that can be seen with the number of elderly people doing sports activities and carried out regularly because it is supported by facilities and the instructors were very pleasant. We assumed that the scheduling, infrastructure, and the instructor were the supporting factors for the elderly to carry out physical activity or exercise. While, the elderly in the coastal area beside elderly clinics were less active, as well as 40% of the elderly have never attended a scheduled exercise program. Due to its physical limitations due to age and changes and a decrease in physiological functions, the elderly require some adjustments in physical activity daily. Some of the benefits of physical activity include keeping the blood pressure remained stable in the normal range, increases the body's resistance to disease, strengthen bones and muscles, improve physical fitness, in addition to physical activity can reduce stress and improve self-confidence. Physical activity can be accomplished through daily activities



such as sweeping, mopping and others, also can be a sport. The right kind of sports activities for the elderly are namely walking, gymnastics, and running. Exercise is very beneficial to boost brain power, fight aging, relieve stress, increase happiness naturally and improve self-confidence. This is in line with Tegawati (2009), which suggests there are differences between the mean level of depression in the elderly who do gymnastics elderly. Sport and physical activity is also helpful to lower blood pressure. This statement is consistent with research Khomarun (2014), on 15 hypertensive elderly in Elderly clinics Makamhaji Village, Kartasura shows that physical activity such as morning walk affects in decreasing blood pressure ( $p = 0.001$ ).

A good exercise is performed in a balanced way, both of the duration, intensity (how hard to do), and frequency of the exercise. The intensity of exercise can be determined by counting the pulse by palpating the wrist. The results showed that the urban elderly frequently (37.1%) and infrequently (30%) check the pulse when exercising and of 70 elderly only 14 people (20%) who felt routine and 24 people (34.3%) felt often when exercising can achieve the desired heart rate, while elderly in nursing homes despite the frequent and regular exercise but most never check pulse when exercising (71.4%) and was never able to achieve the desired heart rate when exercising (60%). Fatmah (2010), mentions the pulse increased when we do sports or physical activity. At the time of exercise, the pulse should be able to exceed 60% of maximum heart rate (DNM) i.e. 60% of 220 minus age. If doing the exercises, but the pulse does not achieve the results of exercise training zone, so it may not increase fitness although done for years (Fatmah, 2010). We assumed patterns of behavior in check pulse and intensity of exercise was not all the elderly were able to do because of these habits should be taught and trained by the elderly. The results showed nursing homes had more regular exercise for 20 minutes, 2-3 times a week (35.7%). Fatmah (2010), explains that in addition to the intensity, duration of exercise should also be sufficient. The frequency of the training schedule should be routinely and regularly every day or three times a week.

Besides the elderly have to choose the exercise in accordance with the body's ability. We assumed that elderly who never exercise for 20 minutes 3 times a week could be explained that physical activity was not only done through exercise, but physical activity daily, such as sweeping, mopping, climbing stairs and others that can be done according to ability. The results mentioned more urban elderly were often mild to moderate physical activity (such as continuous running 30-40 minutes, at least 5 times a week). This was consistent with the level of activity of urban elderly where most have a moderate activity level (68.6%) even have the vigorous (2.9%). When viewed from the habit that most often done, the elderly in 3 area expressed in the form of various activities (sports, doing household chores, working, caring for grandchildren). These habits are very nice and helpful for the elderly to keep in shape, in addition to the motivation to do these habits come from himself, so that it can continue to consistently do.

In order to maintain the degree of health, then there must be a balance between activity and rest. This study found a pattern of behavior on the balance of the elderly, the elderly urban stating more often balancing time between work and play or rest (35.7%), they also on average often arrange a time to prevent fatigue (40%), while the elderly in coastal and nursing homes only occasionally balance their time, but also many coastal elderly never done it. We assumed that physical setbacks experienced by the elderly will lower physical endurance in carrying out daily activities, the need for longer periods of rest to recover after a long day. Elderly also need to take time to relax every day. Relaxing at home with a spouse, child or grandchild is a time of rest from the routine work undertaken, of 70 elderly people in each area, elderly in nursing homes (42.9%) and urban area (40%) were more routinely take time to relax every day. This is in line with research Anggraini (2008), which was held in Pekayon Jaya primary health care, Bekasi shows the relationship between physical activity with health status ( $p = 0.004$ ) and resting habits with health status ( $p = 0.000$ ).

Hogstel in Stanley (2006), reveals that according to the theory of social activity to

explain who had the optimal aging will remain active and do not experience shrinkage in their social life. Strategies for fulfillment of old age include maintaining a healthy lifestyle, trying to stay active both physically and mentally, have a strong support system such as family, friends and neighbors, still able to adjust or adapt to change, to participate in activities which means personally, avoid situations that can cause stress if possible, have autonomy and not rely on others, do what they want and plan structured activities every day and have something to achieve. The results of this study found the average elderly in nursing home sometimes feel every day is a challenge to be conquered and many interesting things (52.9%), we assumed that in nursing home other than activities with the elderly and caregivers, there is a good cooperation with various agencies such as companies, NGOs and educational institutions which conduct activities of occupational therapy, play and sport. Urban elderly are also likely to open up to new experiences and challenges (40%), the urban people also affected by modernization and more volatile, especially for people with middle and upper economic status. In terms of stress management, more urban elderly people who regularly use the method of stress management (20%), they also tend to do a relaxation or meditation for 15-20 minutes every day (34.3%). Elderly may possible using other methods of controlling stress. This can be explained that the elderly with much experience of life, face a variety of stressors that occur throughout the life span, help the elderly at this time to continue to adapt to the stressor. In this study, there was one elderly person (1.1%) had a good lifestyle. This can be explained that the elderly aged 56-60 years which allowed the elderly to participate in teaching activities, being active every day, and living with a partner and have a positive perception become elderly.

Halstead in Stanley (2006), suggests spirituality is a basic human quality, experienced by elderly people of all faiths and even by people who do not have faith. The research found that religious activity that the most widely followed by elderly was recitation, even the urban elderly followed more than one religious or social activities. This can be explained that

the average elderly doing religious activity as a form of spiritual fulfillment or the relationship with the God. Halstead in Stanley (2006) points religiosity is the degree and type of religious expression and participation of the elderly. A number of indicators of religiosity have been determined from the study: attendance at places of worship, participate in religious activities, knowing a place of worship and theology, worship, reading scripture and conduct meetings. In this study, besides being a place of worship, the communal Qur'an reading group and the church (especially the community activities of the church / *adi yuswo*) also provides services and supports that are very important for the elderly. External factors that affect lifestyle are the group reference and social classes, in addition to the family. This theory was proven that elderly in the nursing homes tend to have a frequent or even routine support from the association of activists who care (68.5%), while the urban elderly was only about 51.4% and coastal elderly was only sometimes (55, 7%). We assumed that the establishment of communal Qur'an reading group or the church activities for the elderly (*adi yuswo*) indicated that a community or church showed concern and give a place for the elderly to be able to continue participating in the religious or social community. This concern showed could also explained why the coastal elderly lifestyle relatively poor whereas the urban elderly and nursing home elderly lifestyle was pretty good. Social support both from their families and other groups also help the elderly to remain happy and this statement is consistent with a research of Nurhidayah and Agustini (2012) in Social Institutions Tresna Werdha Budhi Dharma Bekasi and Mekarsari Village which shows that social supports are significantly positive to the elderly happiness value ( $p= 0.005$ ). The higher the social support obtained by the elderly, the higher the perceived happiness of the elderly.

Darmojo (2014), states that the aging process is an individual process where the stages of the aging process occurs in people with different ages, since each elderly have different habits. The ability of the elderly to continue building social interaction is the key to maintaining their social status. The research

found there were 9 coastal elderly (12.9%), 4 urban elderly (5.7%) and 8 nursing homes elderly (11.4%) did not follow the religious and social community activities. Besides religious or social activities in form of communal Qur'an reading or going to the church, most elderly would follow any gathering, certain community, and some may have attended more than one group. Besides being active in religious activities, nursing homes elderly also always spend time to hang out with close friends. Research by Yuliaty (2014), in 210 elderly proves that based on the life quality domains; there are physical domain, psychological, social, and environmental differences among the elderly who live in communities and at Social Services for Elderly such as in nursing home. The community tends to fulfill the social needs of elderly better than at home, because the interaction of the elderly in the community is essentially wider than the elderly in nursing homes. We found that this good behavior patterns was done by increasing the participation of the elderly in various activities, so that the elderly could still feel confident and still finds himself useful and meaningful to the surrounding environment, for example the nursing homes elderly main support system was his fellow elderly since they already lives and interacts long enough.

Research Ironson (2002), identified four factors of spirituality or religiosity, namely: 1) The feeling of calm and peace (*sense of peace*), as a serenity, spiritual comfort, a feeling of security. Their spiritual comfort or strength or meaning has a relationship or attachment with feeling alone, or existence. In this study of elderly urban and nursing tended to feel confident that their life had a purpose. Often feel calm and at peace with yourself most felt by the elderly in nursing (55.7%). The next factor 2) Faith in God is the foundation of hope. The views in God and belief in the role of God for the recovery of the disease (somatic) giving strength to the elderly to has a positive perception of the aging process. This study showed as many as 40 urban elderly (57.1%) and 38 nursing homes elderly (54.3%) stated that become elderly are fun, happy, and they feel grateful and sincere, while 22 coastal elderly (31.4%) claimed being the elderly means they were no longer young and they were decrepit. We found a positive meaning into

elderly always comes from the belief in a power greater than themselves which was God. The results showed urban elderly people tended to feel that faith in God also helps the elderly to be able to looked into the future (60%). However, of the 70 elderly in each place, we obtained 11 coastal elderly (15.7%), 6 urban elderly (8.6%) and 7 nursing homes elderly (10%) claimed that being an elderly was tiring, painful and limited and evermore, boring. Those conditions could be explained by the associate perception of the elderly with life stressors experienced at this time, such as illness, lack of support systems and meaningful activity. This is supported by Zulfitri (2011), research on 30 elderly people who experience chronic illness at Social Academy of Tresna Werdha Social Khusnul Khotimah Pekanbaru, shows the relationship between elderly self-concept and also lifestyle, where the elderly with a positive self-concept has a chance to 6.563 times have a healthier lifestyle than elderly people with a negative self-concept.

The next factor is 3) Religious Conduct (religious behavior) is defined as a religious ritual, prayer and attendance at religious services. The behavior is a manifestation sign of gratitude to God. In the previous discussion has been explained that the average elderly in this research mostly followed a communal Qur'an reading. 4) Empathy to others (compassionate view of others). This was defined as compassion for others, do good and think of others. In this study we identified the satisfaction of spiritual needs of 70 elderly people in each area, as many as 32 coastal elderly (45.7%), sometimes and 28 urban elderly (40%) and 24 nursing homes elderly (34.3%) often praising others for the success they achieve. Spiritual factors of elderly could also be seen from the either coastal, urban and nursing homes elderly when they showed concern, affection and warmth to others. We found that elderly people with a lot of life experience and a role model still want to show and share the experience of living with loved ones, sharing about everything, ideas and opinions in a variety of life situations that could be accepted in the family. Wibowo (2016), in nursing mothers indicate that the information support is essential for the formation of health behavior in exclusive breastfeeding. According

to Simon (1995) in Wibowo (2016), one determinant of health is a social environment. The social environment may include social activities; including interaction between people, friends, neighborhood, and community group activities is a source of information easily in a social environment. Wibowo also explained that closest people who have a major role in providing information support. Indriana (2011), of the 20 elderly assisted in Redcross of Semarang indicates that the presence of the couple does not improve the social and religious welfare of the elderly. In other words other than a spouse, people around the elderly, friends and relatives is a support system for the elderly.

Beare in Stanley (2006), explains that health education is an essential component of gerontological nursing. For the elderly, health education is to help people affected by chronic diseases in adapting to the disease, face the problem, and to understand the processes associated with aging. It is also meant to help elderly people maintain good health and functioning independently and live a longer, healthier life. Health education efforts emphasize the prevention of disease, maintain existing capabilities, and prevent damage that can result in disability. The results showed as many as 11 coastal elderly (15.7%), 2 urban elderly (2.9%) and 4 nursing homes elderly (5.7%) had the habit of smoking, this is an elderly maladaptive behavior. Elderly can take advantage of various levels of health care to improve health status. Health services at the community level is elderly integrated health post (Puskesmas Lansia), elderly health care is a basic level of health centers, and advanced health care is the hospital. Elderly receive most of their health information from print media such as magazines health and medical books, and encyclopedias. Television, family members, friends, doctors, nurses are the sources of the next most common. Participants in this research indicate a need for health care information more, especially in the costs of health care, illness in old age; nutrition, physical exercise, and medication. Elderly tend to look for information that helps them to stay healthy than the information focused on their health problems. The results showed 30 coastal elderly (42.9%) sometimes, 28 urban elderly (40%) and

27 nursing homes elderly (38.6%) often watch television on healthcare quality improvement. Besides, the urban elderly and nursing more often acquire knowledge of health workers. The need for health information to motivate elderly to look for sources that are more competent in the field of health. We believed this pattern of behavior was very good. The elderly and families need to understand what needs to be done to maintain and improve the health status of the elderly. Health workers are a source of accurate information for them, communication and interactive discussions to help them gain a broader knowledge. Research Ford (2007), on 12 422 elderly women in Australia found that behaviors related to their own health and lifestyle (smoking, physical activity) is a better predictor than social factors on mortality of elderly women. The lifestyle of the elderly can give a positive or negative influence to those who run it, depending on how the person is living it. In this study, the majority of coastal elderly have bad lifestyle, while most of the urban elderly and nursing homes elderly have fairly good lifestyle. Incompliant elderly along the coastal area in the following scheduled sports program, on average do not read the labels of packaged foods and dietary restrictions as well as behaviors that less attentive of low fat consumption in the diet plate every day, never do the relaxation method, have a negative perception about the aging process are indicates poor lifestyle, while in the urban area and home lifestyle pretty well for participation in religious or social activities, consumption and nutritional needs more awake, resting and getting enough sleep.

Elderly should have a good pattern of behavior by being attentive to nutrition, physical activity according to the ability, to set the time between activity and rest or sleep, participate in religious or social activities, being attentive and adhere to health education given, control stress and have a positive perception of the aging process since it is part of life. The family as a major support system for the elderly should always provide assistance, reminder, listen and pay attention to the needs of the elderly.

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