

Original Article

# Healthy Aging Encourages Successful Aging to Become Productive Elderly Based on Green Lifestyle in Central Java, Indonesia

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**Abstract** - This study aims to determine the healthy aging that encourages successful aging to become productive elderly based on a green lifestyle. This study employs a qualitative-phenomenological approach whose data collection method was carried out through interviews and observation. Based on the research results obtained through interviews with resource persons with the help of the mind map program, it is concluded that healthy aging is manifested in the existence of health checks, activity/ hobby, and lifestyle. In addition, a green lifestyle refers to environmental care, and successful aging makes the elderly productive. Factors that influence healthy, successful, productive conditions in the future are green lifestyle consisting of physical health, activity factor, psychological factor, social factor, and religiosity factor.

**Keywords** - Healthy aging, successful aging, green lifestyle.

## I. INTRODUCTION

The process of population aging is influenced by several factors; for instance, improvement of nutrition, sanitation, health services, to progress in the level of education, and socio-economic improvement. The Elderly is the final period of the phase of human life. Most elderly face periods by spending their lives with the family. Some others live alone because their spouse has died or has no relatives at all. When passing through this period, the elderly have the opportunity to develop into better and more mature individuals, develop themselves and create according to their interests, and do something meaningful for themselves and others. The problems faced by aging people are very typical; they experience a decrease in their physical condition and psychological problems. In old age, a person must not only maintain physical health but also maintain his mental condition to deal with the changes they experience [1]

Based on population projection data, in 2017, there were 23.66 million elderly people in Indonesia (9.03%). It is predicted that the number of elderly populations in 2020 will be 27.08 million. In 2025 is 33.69 million, in 2030 is 40.95 million, and in 2035 is 48.19 million. A country is called an old structure if it has an elderly population above

seven percent, as well as the percentage of elderly people in Indonesia in 2017, which reached 9.03% of the total population. In addition, it was found that the percentage of the population of 0-4 years was lower than the percentage of the population of 5-9 years. Meanwhile, the percentage of productive population 10-44 years is the largest compared to other age groups. Increasing the number of elderly people each year will increase the life expectancy so that the degree of health increases. If life expectancy is getting longer, it will be followed by the increasing number of elderlies, which will increase the HDI (Human Development Index) [2].

People who are successful in the aging process (successful aging) tend to have social support in terms of emotional and material that helps mental health. Therefore, as long as they can remain active and productive, they do not consider themselves old [3]. The effort done by the elderly in Indonesia to achieve successful aging is to stay in touch and be active. Forms of activities that can provide successful aging for the elderly in Indonesia are raising children, making families happy, and helping others [4].

Today's society considers that the elderly can only be at home, enjoying their days by just relaxing without doing any activities. In fact, on the other hand, we can find phenomena in which the elderly can remain productive and useful for others in their time. Old age is seen as a time of decline and a period in which the elderly feels the decline that occurs in him/ her physically and psychologically. Some elderly people still look at old age with an attitude that shows despair, passivity, weakness, and dependence on relatives. The Elderly is not trying to develop themselves so that the elderly more quickly experiences physical and mental deterioration. On the other hand, this view does not mean that an elderly group is a homogeneous group of people. The elderly undergo and interprets old age in different ways, there are elderly people who are able to see the importance of old age in the context of human existence; i.e., as a period of life that gives elderly opportunities to grow and have the desire to do something or mean for others.



In the development era, the elderly are no longer a burden since the phenomenon that the elderly are the subject of productive labor. In the elderly, a person is expected to remain healthy and active. Active means that the elderly have social, economic, cultural, and spiritual social activities. To be active, the elderly must be physically, mentally, and socially healthy. So, he/ she will become a tough elderly by promoting (promotion), preventive (acceleration), curative (treatment), and rehabilitation (recovery). In order to avoid burdening others, an elderly person must arrange healthy living from a young age by regulating eating patterns, ways of life, reducing stress, striving for economic independence, and health checks.

However, previous studies mentioned that the quality of life of elderly living in nursing homes is lower than elderly living at home [5]. Based on research conducted by Rahmania, the majority of elderly people at the Surabaya Hargo Denali nursing home experience moderate levels of depression, because the elderly do not do activities while at the institution, and there is no consultation or psychological examination service for elderly people with depression [6]. Depression in old age will have a serious impact on social and physical life, which will cause a decrease in the quality of life. In this case, the elderly tend to depend on others [7].

**II. RESEARCH METHOD**

**A. Elderly Classification**

According to the Ministry of Health of the Republic of Indonesia [17], the elderly is classified into the following categories :

1. The early elderly age of 46-55 years
  2. The late elderly age of 56-65 years
  3. The elderly age of 65 years and above
- The informants of this study use of the late elderly (56 to 65 years) and the elderly (65 years and above)

**B. Research Design**

The research design used in this study is a qualitative study with a phenomenological approach. Qualitative research methods enable researchers to understand the phenomena experienced by research subjects, for instance, behavior, perception, motivation, actions, etc., by means of descriptions in the form of words and language in a special natural context by utilizing various natural methods [15].

Researchers chose qualitative research methods because researchers wanted to know how “Healthy Aging Encourages Successful Aging to Become Productive Elderly Based on Green Lifestyle in Central Java, Indonesia ?”. In addition, this study uses a phenomenological approach. The phenomenological

approach is oriented to understanding, exploring, and interpreting meaning, events, and relationships with people in certain situations. Research using this phenomenological approach is commonly referred to as research that uses observations of natural social phenomena or phenomena based on field reality (empirical) [15].

Characteristics of the subjects of this study are the man or woman who at the time of the study was in a healthy. Resource person number is 23 persons, which age of 56 – 56 years are 10 persons and age 65 years and above are 13 persons. Resource person from Pekalongan (6 persons), Magelang (6 Persons), Solo (8 persons), and Semarang (3 persons). Taking subjects in this study using purposive sampling techniques, i.e., subject taking techniques with certain characteristics [16]. From 23 resource person, the man or woman who have unique hobby become productive only 4 persons and the others was in a healthy but not productive condition.

Data collection methods used in this study were interviews, observation, and documentation. Technical analysis of data uses three steps consisting of data reduction, data presentation, and drawing conclusions/ verification with the help of the Mind Map Program (a tool with a qualitative approach). Test the validity and reliability are carried out by using triangulation with research sources as a test of the validity of the data. Triangulation with research sources is to compare and check the degree of trust in information obtained through different times and tools in qualitative methods. Data sources in this study are as follows:

**Table 1. Data of Resource Person in 2019**

No	RESOURCE PERSON NAME	HOMETOWN	AGE	OCCUPATION
1	MJN	Pekalongan (PKL)	64 years	Merchant
2	SS	Magelang (MGL)	56 years	Bank Pensioner (2012)
3	SSY	Magelang (MGL)	56 years	Tutoring Entrepreneur since 2003
4	WB	Semarang (SMG)	56 years	Book Writer

Source: interview in May - July 2019

**III. RESULTS AND DISCUSSION**

**A. Result**

The results of the analysis with the help of Mind Maple based on Reduction Data and Display Data can be summarized and presented as shown in the following Mind Maple :

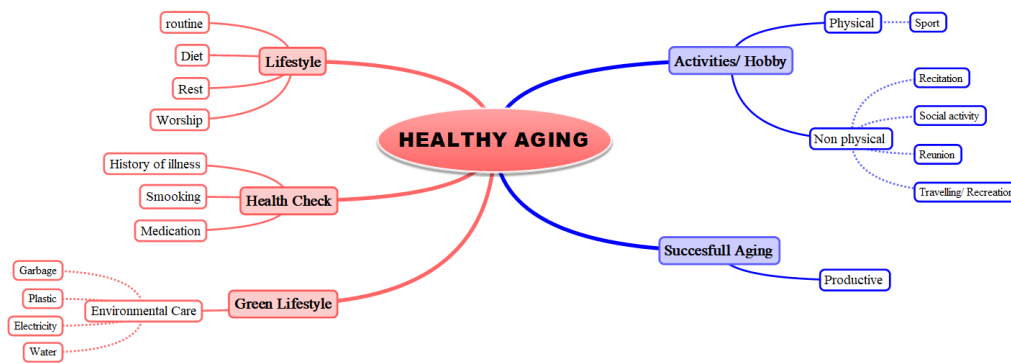


Fig. 1 Mind Maple of Substance and Category

This research theory refers to a combination of several opinions about healthy aging, successful aging, and a green lifestyle.

1. Successful Aging

Successful aging is caused by several interrelated factors, including physical and health, activity, psychological, social, and religious factors [8].

2. Healthy Aging

For the sake of not burdening others, an elderly person must regulate a healthy life from a young person by regulating eating patterns, ways of life, reducing stress, trying to be independent of an economic perspective, and conducting health checks.

Some indicators or variables of healthy practices that can affect elderly mental health include: developing hobbies/ interests, doing periodic recreation, confident practices, trying to appear attractive, being able to retain memories, being able to overcome problems [9].

3. Green Lifestyle

Green lifestyle should contain three components or dimensions: environmental knowledge, environmental attitudes, and environmental behavior [10, 11]. Green lifestyle has been conceptualized in several ways, including health-related and environment-related activities, values, and perceptions [12, 13; 14]. Green lifestyle can also be viewed as everyday green activities [12]. Environmental awareness and knowledge are known to be chief predictors of environmental buying behaviors [20].

This study consists of several theory including a green lifestyle, healthy aging, and successful aging. To facilitate this research, That theory can be grouped based on substance and category as follows:

1. Environmental care (garbage, plastic, electricity, water)
2. Activities and hobbies: physical (sports) and non-physical (recitation, social activities, reunions, tours/ recreation)
3. Lifestyle (routine, diet, rest, worship)

4. Medical examination (history of illness, smoking, medication)
5. Productive

**B. Discussion**

The steps to create healthy, active, and productive elderly people are:

- 1) Regular health check at the Integrated Development Post,
- 2) Go to the Community Health Center if there are health complaints,
- 3) Conduct activities that sharpen the brain,
- 4) Develop hobbies accordingly ability,
- 5) Consume balanced nutritious food,
- 6) Reduce foods that are too tasty, sweet and oily,
- 7) Avoid smoking,
- 8) Increase relationships and harmonious relationships,
- 9) Manage stress well and engage in light physical activity 30 minutes a day, and
- 10) Doing regular aging exercises [18]

A person who is active in his/ her youth should continue to maintain his/ her activity after aging. The sense of integrity that is built-in youth must be maintained until old age. This theory states that the elderly who get successful aging are those who are active and involved in social activities [19]

**IV. FACTORS OF PRODUCTIVE ELDERLY**

**A. HEALTHY AGING**

**a) Activity/ Hobby**

Some indicators or variables of healthy practices that can affect elderly mental health, some of these variables include: developing hobbies/ interests, doing periodic recreation, confident practices, trying to appear attractive, being able to maintain memory, and being able to overcome problems [9].

**Table 2. Summary of Answers from Data Sources (Resource Persons) with Determinants of Activities/ Hobbies**

Resource Person	Summary of Answers from Data Sources	Substance	Category
MJN_PKL	<p>“In the past, when I was young, I liked Volley. Now, I'm old, so I do Elderly Gymnastics.”</p> <p>“Currently, I have participated in many activities : PKK (Pembina-an Kesejahteraan Keluarga- Fostering Family Welfare), Posyandu (Pos Pelayanan Terpadu integrated Service Post) Elderly, Village Family Planning Assistance, pregnant women classes. In essence, I look for something to do so that I have a sense of wanting to help the people in my community.”</p> <p>“The recitation is every Thursday night, there is a study tour also Yasin Tahlil. Within a month, there is a Kubo recitation in the second week.”</p>	Activity/ Hobby	physical (sports) and non-physical (recitation, reunion, travel, social activity)
SS_MGL	<p>“I usually take a walk in the morning, sometimes swimming. I used to like cycling.”</p> <p>“My hobby is farming. Since there is no land, I use hydroponics.”</p> <p>“Usually, there is a recitation on Sundays near the house and also a social gathering.”</p>		
SSY_MGL	<p>“I join gymnastics in my neighborhood once every week. In the past, I joined gymnastics in the dance studio.”</p> <p>“My hobby is cooking. I once opened a Soto stall business. When I followed my husband, I sold presto milkfish, gudeg, and rawon. In Medan, many women like it. They are women in the Dharma Wanita circle.”</p>		
WB_SMG	<p>“I always walk when I work. I rarely use motorcycle transportation when the distance is close. Walking home and going will replace sports that I can't do every day.”</p> <p>“Initially, I actively wrote in the newspaper around the 80s. Then I developed it into a book since 2008.”</p>		

**b) Health Check**

The steps to create healthy, active, and productive elderly people are: 1) Regular health check at the Integrated Development Post, 2) Go to the Community Health Center if there are health complaints, 3) Conduct activities that sharpen the brain, 4) Develop hobbies accordingly ability, 5) Consume balanced nutritious food, 6) Reduce foods that are too tasty, sweet and oily, 7) Avoid smoking, 8) Increase relationships and harmonious relationships, 9) Manage stress well and engage in light physical activity 30 minutes a day, and 10) Doing regular aging exercises [18]

**Table 3. Summary of Answers from Data Sources (Resource Persons) with Determinants of Health Check**

Resource Person	Summary of Answers from Data Sources	Substance	Category
MJN_PKL	<p>“I have never been too sick or had to be hospitalized. I have only experienced mild ill.”</p>	Health Check	history of illness, smoking, medication
SS_MGL	<p>“Regarding illness and having to be hospitalized, I have never felt it so far and hopefully never.”</p>		
SSY_MGL	<p>“Alhamdulillah, I have never been experiencing it. However, I had surgery in 1991 after giving birth to my first child because there was a benign tumor in the pancreas, which weighed up to 2.5 kg. Then, in 2004 I removed my uterus because I was bleeding continuously (myoma).”</p> <p>“Yes, I consume fresh milk and supplements. But then I stopped because I was afraid it would cause dependency. Then, I lived life as usual. I consume what my body needs. That includes not lifting heavy loads.”</p>		

WB_SMG	<p>“I don’t smoke, but I smoked at around the age of 35. It was only one year later that I quit. It’s not because I’m sick or something (smile), but I stopped because my clothes got a lot of holes, doc (smile).”</p> <p>“After quitting smoking, I feel healthier.”</p> <p>“Quitting smoking is not a health reason (laugh). Yes, that’s right, there are many benefits.”</p>		
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### c) Lifestyle

The optimum size (lifestyle) depends on the way of life of an elderly person. Maintaining the relationship between the social system and individuals is intended to remain stable from middle age to the elderly [19]

**Table 4. Summary of Answers from Data Sources (Resource Persons) with Determinants of Lifestyle**

Resource Person	Summary of Answers from Data Sources	Substance	Category
MJN_PKL	<p>“Talking about my daily routine, I don’t work in an office until now. I’m a housewife who also has a little business, like trading and sewing convection. I wake up at dawn prayers then do household chores, sweep, cook preparations for children who will to go to school, open a shop at home, trade in small businesses at home, rest, cook again for lunch, help children learn, check merchandise, then I sleep.”</p> <p>“I have never taken supplements. I often eat lots of vegetables and fruits. I do not consume medication.”</p>	Lifestyle	routine, diet, rest, worship
SS_MGL	<p>“I wake up at dawn prayers, get ready to go to work, drop off school kids because the kids are still small. So, I went to the office as well. I come home from work late at night sometimes because of the end of the month.</p> <p>“I eat lots of healthy vegetables and fruits.”</p>		
SSY_MGL	<p>“My routine activity is waking up at 3:00 or 3:15 a.m. I automatically take a shower to refresh my body. Then I continued to pray. Coming home from the mosque, I began activities in the kitchen for canteen purposes. No later than 08.00 a.m. I must have finished everything. After that, I performed the Dhuha prayer. After that, I prepared for my tutoring effort. That is my daily routine”.</p> <p>“I do not know the term over time. I tried to set the time management so that at 8 p.m., all done. Likewise, at 8:00 a.m., I finished everything. I do arrange it like that.”</p> <p>“Yes, I usually drink the herbal medicine that is usually passed in front of the house like turmeric tamarind and the cold one to catch a cold (<i>cabe puyang</i>), then I consume fresh milk.”</p>		
WB_SMG	<p>“I always walk when I go to work, and I rarely use motorbike transportation when the distance is close. I always move by walking home and going. It will replace sports that I can’t do every day because when I write a book it can take up to five-seven hours in front of a laptop. In addition, I love drinking water to maintain my health. Since Elementary, Junior High, and Senior High Schools I like to walk.”</p>		

## B. GREEN LIFESTYLE

Green Lifestyle is a lifestyle that is based on awareness to protect the environment. The point is that humans must be aware and participate in protecting the environment in their lives. Each person can continue to live life the way they want. However, they still have to take into account the effect of these actions on the environment.

**Table 5. Summary of Answers from Data Sources (Resource Persons) with Determinant of Environmental Care**

Resource Person	Summary of Answers from Data Sources	Substance	Category
MJN_PKL	<p>“The type of garbage has been sorted. In my place, there is the person who takes it 3 times a week, a garbage man. Bottle, glass, and plastic waste are weighed in a garbage bank whose activities are carried out in conjunction with the Elderly Integrated Service Post.”</p> <p>“I am a PDAM (Indonesia: Perusahaan Daerah Air Minum = Municipal Waterworks) water user, and I need enough electricity at night. During the day, I use electricity only for purposes such as washing and ironing.”</p>	Environmental Care	(garbage, plastic, electricity, water)
SS_MGL	<p>“We recommend that the waste is sorted. Organic waste can be recycled for fertilizer and spoiled. Actually, garbage has many benefits. Plastic can be recycled too. Organic waste can be processed into compost, and it depends on each person.”</p> <p>“If there are used boxes in a garbage bank or if there is organic waste, we use it ourselves.”</p> <p>“I am a well water user. Here the PDAM (Municipal Waterworks) sometimes gets stuck for a long time, making us stressed, so we use well water.”</p> <p>“Electricity is expensive. We have to be smart to deal with it. For water, we use afloat, so if it's full, it will automatically turn off.”</p>		
SSY_MGL	<p>“Incidentally, there has always been an officer who took the trash. There is a garbage bank too. I made use of used boxes while I put plastic and used water in a garbage bank.”</p> <p>“I used well water, and alhamdulillah the well water was tested, and there was no danger. I skimp on electricity usage. We turn off the lights that are not in use. I also adjust to the electrical equipment that I use.”</p>		
WB_SMG	<p>“I made sure the water and electricity were turned off when I was going to leave the house. Even on campus, I will immediately report water and electricity that are still on when no one is using it.”</p> <p>“Garbage should be managed properly, especially community awareness for clean culture.”</p>		

### C. SUCCESSFUL AGING

MacArthur Foundation Research Network in the USA has identified three main components in successful aging, which include avoiding illnesses or diseases that impede ability or independence, high physical and psychological function, and being active in social life and productive activities (paid or no) that can create social values [3].

**Table 6. Summary of Answers from Data Sources (Resource Persons) with Determinant Productive**

Resource Person	Summary of Answers from Data Sources	Substance	Category
MJN_PKL	<p>“Merchant”</p> <p>“Anyway, I look for a busy life so that I have a sense of wanting to help the community in my neighborhood.”</p>	Productive	Daily bustle
SS_MGL	<p>“My hobby is farming. Since there is no land, I use hydroponics. If there is someone interested, I will sell it later.”</p>		
SSY_MGL	<p>“My hobby is cooking. Now, I open a Soto shop business.”</p> <p>“Tutoring Entrepreneur”</p>		
WB_SMG	<p>“My hobbies are writing, making books, and then getting royalties.”</p>		

#### IV. CONCLUSION AND SUGGESTION

##### A. Conclusion

Based on interviews with resource persons with the help of Mind Map, it was concluded that healthy aging is manifested through health checks, activities and hobbies, and lifestyle. Green lifestyle refers to environmental care. Then, successful aging makes the elderly active and productive. Elderly people who experience successful aging move and socialize with their environment. That will certainly lead to a happy life. Successful aging is achievable at a time when someone can enjoy the results of his/ her efforts, to stay in touch and be active, make families happy, and help others. Factors that affect health, success, productivity in old age are green lifestyle factors which consist of physical health, activity factors, psychological factors, social factors, and religious factors.

To realize a healthy, independent, quality, and productive old age, health development must be carried out as early as possible during the human life cycle to enter the elderly phase by taking into account the risk factors that must be avoided and the protective factors that can be done to improve the health of the elderly.

##### B. Suggestion/ Recommendation

It was suggested to examine the resource persons of early elderly people (aged 46-55 years) with the same substance and category as offspring.

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