

Sociology of Space: The Elderly Activity Space Before and During the Covid-19 Pandemic

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Abstract

The current pandemic has an impact on all lines of life, especially on elderly people with vulnerable or declining health status. Prior to the COVID-19 pandemic, the elderly were active in activities inside and outside their homes to fill their spare time in their old age, but during social restrictions and physical distancing, they were forced to stay in their homes for an indefinite time. Through qualitative methods, this research explores the activity space of elderly women who are still active in daily activities both at home and in their neighborhood before the pandemic and during the pandemic where government policies limit/influence the activities of the elderly. Participants of the research are 60 years old elderly women and over (WHO, 2020) who live in Banyumanik residence. The results showed that there was a decrease in the scale of the activity space used by the elderly during the pandemic, namely from the environmental space scale to the residential space scale.

Keywords

elderly activity ; elderly space; covid-19 pandemic

INTRODUCTION

In early 2020, the world was overwhelmed by brand-new pneumonia discovered in Wuhan, Hubei Province that rapidly spread to other countries. This outbreak was called 2019 Coronavirus Diseases (COVID-19), an infectious respiratory disease caused by a virus called Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) which was recently declared as a pandemic and a worldwide emergency (Falvo, et al., 2021; Chee, 2020; Carriedo, et al., 2020; Adhikari, et al., 2020). This current pandemic certainly had an impact on almost every aspect of everyday life, particularly on the elderly with declining health status. A study found

that Covid-19 patients are dominated by the elderly (Hakim, 2020). During the Covid-19 pandemic, the elderly were prone to be susceptible to the virus due to the low immune system and degenerative diseases like heart disease, hypertense, and diabetes (BPS, 2021). Moreover, a study based in Beijing shows that severe Covid-19 cases occurred among patients above 65 years old, especially among comorbidities sufferers (Emami et al., 2020). Health vulnerability data among the elderly patients reported in statistical

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data shows the number of elderly patients who died from Covid-19 in many countries. In Indonesia, based on October 2021 data, the Covid-19 death percentage of elderly patients was 46.8 percent. This is the highest figure compared to the other age groups (BPS, 2021).

The Covid-19 pandemic has become an unprecedented challenge for the elderly as well as older adults and is a threat to their daily lives, relationships, and well-being (Chee, 2020). With the spread of the novel coronavirus and its damaging impact on people's health, it is undeniable that there is no exact prediction for the culmination of the coronavirus outbreak and its long-term toll on adults who live in confined neighborhoods (Adhikari et al., 2020).

Due to the confirmed cases of Covid-19 patients, the government issued a social and physical distancing policy by limiting outdoor activities to prevent the spread of the virus (Marpaung, 2021; Wicaksono, 2020). The government began to initiate restrictions by closing schools, offices, and department stores, canceling public events, preventing public movement, as well as commencing distinctive health protection for the elderly who were susceptible to the virus (Falvo et al., 2021). This social and physical distancing period caused inconvenience to everyone, including the elderly. The public health authority has also prohibited older adults from entering supermarkets and grocery stores. They have also introduced early shopping hours for entering pharmacies, shops, and other essential services (Falvo et al., 2021). The elderly were forced to stay at home and this affected their social interaction patterns and habits. They were doing activities at home with fear and even suffered from ripple effects in every aspect of their lives (Lai et al., 2020). Information on the negative impact of Covid-19 has a psychological effect on the elderly and the limitation of physical social interaction affected their mental health which was, later on, prone to stress (Indarwati, 2020). They might experience distinction from their normal lives and were no longer able to see their friends or neighbors. They also could not be able to walk outside or join outdoor activities which used to be their escape during leisure time. Motivation gained when gathering with their neighbors was also impossible to attain. As stated by (Sugiyama & Thompson, 2006) being outside provides opportunities for the elderly to remain physically active, connect with nature, and meet their friends and neighbors. The low level of so-

cial involvement among the elderly can reduce physical health and increase fatality risk (Sugiyama, & Thompson, 2006; Sauliyusta & Rekawati, 2016; Purnama & Suaahda, 2019).

During the period of social restrictions and physical distancing instigated by the government, the elderly, including female older adults who live at Sronol Wetan sub-district remained at home. These elderly women at normal times (before the pandemic) were energetic both at home and in residential areas. During the pandemic, they tried to remain physically active by transferring activities that were used to be done outside to their own houses so that during the pandemic, these activities continued. Maintaining daily activities during the pandemic can reduce anxiety and stress for the elderly due to the impact of social distancing (Marpaung, 2021; Indarwati, 2020; Cunningham, 2020).

Several studies have analyzed elderly activities during the pandemic which focus on elderly care homes (nursing homes) (Chee, 2020; Emami, A., Javanmardi, F., Pirbonyeh, N., & Akbari, A., 2020; Falvo, I., Zufferey, M. C., Albanese, E., & Fadda, M., 2021). This research discusses the experiences of the elderly in nursing homes during the pandemic by exploring the perspective of non-professionals in the context of nursing homes. Another example is a study identifying the daily life activities of the elderly in a high-density urban area (Shanghai).

However, these studies only focus on the elderly activities, based on some of these studies, the purpose of this study not only focuses on the elderly activities but also on spaces that can accommodate their optimal activities during both normal and pandemic situations. By observing the elderly daily activities two years before the pandemic and during the pandemic, especially during the restriction of mobility (lockdown), a strategy can be determined to develop or plan a multifunctional and optimal elderly activity space (which can be utilized during the normal and pandemic period).

METHOD

A qualitative method is used in this study as this study is categorized as exploratory research. The activities of elderly women before and during the pandemic as well as houses and housing facilities data were collected through field observations and in-depth semi-structured interviews with active elderly women. The interviews were conducted through open-ended questions

which were based on literature studies. The informants' criteria in this study were 60 years old elderly women and over (WHO, 2020) who live in Banyumanik residence, were active in outdoor activities, independently active without others' assistance, had the ability to express themselves orally, had no cognitive impairment, and was willing to voluntarily participate in this study. This study is important to do in relation to the issue of aging in places where the elderly tend to prefer to live in their own homes (Park et al., 2017). Thus, the place where the elderly live and their neighborhood must be able to accommodate the activities of the elderly in any situation so that the elderly can remain active and healthy.

RESULTS AND DISCUSSION

The Elderly Characteristics

The informants' characteristics in this study were active elderly women aged 60 years and over based on the regulations of the Republic of Indonesia Law No. 13 of 1998 concerning the welfare of the elderly. There were 30 elderly women aged 60 – 75 years.

There were female informants in this study with 18 elderly people aged 60-70 years, and 12 people aged 70-80 years. All informants live in private houses and 14 informants live with their husbands and children. 14 informants live with their partners and 2 informants live alone. All informants had excellent health conditions and did not suffer from dangerous, contagious, and serious diseases.

The Spaces and Activities Of The Elderly Before Pandemic

The Elderly Activities Before Pandemic

An activity is an energy effort or a state of motion required for humans to fulfill life necessities. Daily life activities are day-to-day activities carried out by the elderly repeatedly without effort or hard work. According to Stanley (2007), an elderly who experiences optimal aging will remain active and do not experience depression. This corresponds to the elderly women in this study who were actively involved in various physical, social, and spiritual activities both outdoor and indoor. The informants' daily activities were as follows:

Physical Activity

Physical activity and sport are two different terms (Wicaksono, 2020). Physical activity is any form of body movement that occurs due to skeletal muscle contraction which causes an increase in calorie needs or a situation when the use of body calories exceeds energy needs in a resting state (Organization, 2019). Sport is a form of planned, structured, and continuous physical activity that involves repetitive body movements along with certain rules that aim to improve physical fitness and attainment (Wicaksono, 2020). Generally, much research proves that exercising or conducting physical activity regularly can increase higher life expectancy and reduce the risk of cardiovascular disease, decrease infection, minimize the detrimental effect of the aging process and improve fitness index (Kodama et al., 2009). Physical activity can also be a 'medicine' for the elderly and decrease elderly mortality risk (Dewi, 2018) and is essential for maintaining physical and mental health as well as the quality of life quality as a way to stay healthy and fit during the day (Purnama & Suaehda, 2019).

The physical activity category is divided into three; mild, moderate, and heavy (Al Mubarroh et al., 2021). Mild physical activity is anything related to the movement of the body, moderate physical activity is a body movement that causes a large amount of energy release, in other words, a movement that causes a person to breathe a little faster than usual, and heavy physical activity is a movement that causes considerable release of energy (calorie burning) which leads to unusual rapid breathing (Sauliyusta & Rekawati, 2016). The daily mild physical activities carried out by the elderly are reading and watching television while creating handicrafts and gardening are included as their moderate physical activity. Moreover, finishing household chores and raising grandchildren are included as their heavy physical activities (Simon et al., 2016).

Based on field observation, 30 active elderly women at Banyumanik residence showed mild physical activity. 80% or 24 informants around the age of 60 to 80 years

executed this activity. The informants' mild physical activities included reading, watching TV, listening to the radio, and singing. Physical activity was being carried out by 4 informants or 13.3% with a vulnerable age of 60 to 70 years. These activities include nurturing a collection of ornamental plants, taking care of pets, and handcrafting. Heavy physical activity was carried out by 2 informants or 6.7% with the vulnerable age of 60-65 years, including finishing household chores (cooking, clothes drying, and house cleaning) and nurturing their grandchildren.



Figure 1. an elderly woman performed mild physical activity by playing music
Source: 2020 survey



Figure 2. the informant watched TV and took care of pets
Source: 2020 survey

Similar to physical activity, the informants' sports activities were divided into several categories, mild and moderate physical activities. All informants were performing mild exercises every day, including stretching and walking. Furthermore, physical activities were being carried out once a week, including cycling and gymnastics.



Figure 3. The elderly were cycling with friends
Source: 2020 survey



Figure 4. The elderly were doing gymnastics
Source: 2020 survey

The study above shows mild and moderate physical activity in the category of elderly women with a vulnerable age of more than 65 years and above. This is because physiologically, they experience body changes which result in a body function decline that leads them to be easily exhausted. This prevents them from doing heavy physical activities although they might force themselves to do so. The informants carried out physical activity and exercises with the aim of keeping the body healthy and passing the time to lessen anxiety and loneliness. This corresponds to the other research which proves that the elderly could perform regular exercises like jogging, gymnastics, stretching, body bending, and fishing to robust health and fitness, maintain physical flexibility, and reduce worries about death and illnesses (Sauliyusta & Rekawati, 2016).

Social Activity

Social activity is a part of the elderly' daily activities and is usually carried out with community members around the neighborhood. The elderly's social activity is estimated to have the greatest contribution to a successful retirement (Napitupulu, 2013). The elderly's social relationship refers to the theory of social exchange where people's happiness generally comes from content social relationships originating from the actions of others (Astuti & Hidayat, 2020).

There was numerous informants'

social activity in this study before the COVID-19 outbreak. Some of the activities were joining social gatherings, celebrating feasts, visiting friends who were ill, and joining Posyandu (Integrated Healthcare Center). Attending local healthcare regularly can improve the elderly's awareness to maintain their physical and psychological health, help the elderly to detect diseases and health problems early on, as well as a platform for the elderly to increase social interaction. In addition, the elderly become enthusiastic when having social interaction as they can share experiences, problems, and thoughts, and it can be a place to gather with others. This is in line with Robin Dubar's statement that said gathering with closest friends two times a week is the most important aspect of a person's mental health as it can cure illness quicker, strengthen the immune system, decrease anxiety and stress, and provide a positive and broader point of view (Marpang, 2021).



Figure 5. The elderly and the other age groups celebrated Indonesia's Independence Day in front of a multipurpose building

Source: 2020 Survey



Figure 6. a group of elderly women in a festival organized by an automobile company

Source: 2020 survey



Figure 7. elderly men and women were chatting and sharing stories on the border road near a traditional market

Source: 2020 survey

Spiritual Activity

Spiritual activity is an activity executed to accomplish spiritual needs to be closer to God and to find meaning and direction in life, the need for affection and to deliver affection, the need to maintain a sense of attachment, and the need to give and receive forgiveness. Spiritual life has a significant role for the elderly. An individual can cope with stress by utilizing social, interpersonal, and intrapersonal coping sources. One of the intrapersonal coping sources is performing spiritual behavior. A religious (spiritual) approach is highly suggested for the elderly because thoughts from any religious teachings which embrace the demands of living on earth would not be unrestricted from feelings of anxiety, panic, indistinctness, or other negative emotions (Astuti & Hidayat, 2020). Spirituality is a two dimensional relationship within oneself, between other people and one's surroundings, as well as between oneself and God. Spirituality consists of a relationship and its dimensions that seek to maintain harmony and conformity with the outside world. Decent spirituality will help someone to live their lives and prepare oneself to face death (Marpang, 2021).

In this study, the older the informants, the more attention is being put towards religious activities as proven by joining services diligently, increasing obedience to God, and strengthening faith. Spiritual activities increase the elderly's motivation as it evokes calmness, peace, and gratitude, for the

already-given long life. The informants' spiritual activities before the pandemic were:

- 'Qosidahan', a Muslim's religious activity which includes chanting religious music poems performed by Muslim elderly women once a week
- 'Pengajian' or reciting Koran, an Islamic holy book, which was carried out by elderly Muslim women every Thursday night in alternating places every week
- Sunday services, a routine activity carried out every week by Christian and Catholic elderly women
- Independent prayers (fasting, reading Koran or Bible)
- Spiritual tourism is a recreational activity that focuses on spiritual aspects to intensify, enrich, and strengthen faith. It is scheduled once a year and has many benefits, some of which are witnessing either natural or artificial scenery, enriching insight and knowledge, and establishing bonds between elderly members to achieve emotional attachment.



Figure 8. informants participated in a religious group discussion

The Elderly's Activity Space Before Pandemic

An activity space is the geographic scope of an individual's daily travel behavior which represents the places that are often visited by people or people's preferred routes (Bu et al., 2021). An activity space includes the social environment encountered by certain individuals during their daily life routines including, but not limited to, the neighbor-

hood in which they live. The range and characteristics of an activity space can be shaped by an individual's health, physical ability, socioeconomic resources, and social relations (Jones & Pebley, 2014). An individual's neighborhood, adjacent residential area, and transportation availability are some of the factors that can influence the range and shape of an individual's activity space (Rainham et al., 2010). This study focuses on the elderly's indoor spaces and their residential neighborhood (outdoor spaces) since age changes can lessen the geographical range of activities (York Cornwell & Cagney, 2017).

Indoor Spaces

A personal indoor space inhabited by the owner of the house. In this space, there are various activities carried out by the elderly which depend on their habits (Sirnani et al., 2016).

Outdoor Spaces

The outer space of a house is used to conduct social activities (Maidinita et al., 2009). It is a place to accommodate people's activities in an artificial environment that brings certain meaning. Outer space cannot be separated from the activities of the community both emotionally and psychologically (Nurbaity, 2016). Outdoor space has an important role for the elderly as a place to stay active, relate to nature, and interact with others.

DAILY ACTIVITIES AND THE ELDERLY'S ACTIVITY SPACE DURING PANDEMIC

The Elderly's Activities Before Pandemic

The rapid spread of the Covid-19 virus has caused restrictions on outdoor activities which have resulted in a reduction in community activities (Wicaksono, 2020). The public places shutdown was carried out to prevent public gatherings. In addition, people should wear a mask and keep their distance when meeting others. This situation greatly affects the informants' activities.

Table 1. Spaces and Activities Used by The Informants Before Pandemic

Activities	Indoor Spaces	Outdoor Spaces
Physical Activities		
a. Exercising		
Stretching	Terrace	-
Strolling and jogging	-	Sidewalks
Gymnastics	-	Running field
Cycling	-	Sidewalks
b. Mild Physical Activity		
Reading	Family Room, Bedroom	-
Watching TV	Family Room	-
Listening to a radio	Bedroom	-
Singing	Family Room	-
c. Moderate Physical Activity		
Gardening		
Taking care of pets	Terrace	Running field
Crafting	Terrace	Sidewalks
d. Heavy Physical Activity		
Finishing house chores	Family room	Meeting hall
Nurturing grandchildren	All indoor spaces	-
	All indoor spaces	Running field & Sidewalks
Social Activities		
Social gathering	Living room	Meeting Hall
Celebrating holiday feasts	-	Meeting Hall
Visiting ill friends	Living room	-
Joining 'Posyandu'	-	Posyandu Hall
Spiritual Activities		
a. 'Qosidahan' (Chanting Muslim poems)	Living room	-
b. 'Pengajian' (Reciting Koran)	Living room	Meeting Hall
c. Sunday services	-	Church
d. Independent prayers	Bedroom	-
e. Spiritual tourism	-	-

Source: 2020 survey

Physical Activity

It is a challenge for the general public to do physical activity during the pandemic, especially the elderly. Restrictions or social distancing affect every aspect of life including physical activity or workout habits (Constandt et al., 2020). Physical activity is known to provide many health benefits, especially during the pandemic, and is suggested to be carried out regardless of the pandemic situation (Wicaksono, 2020). This is because physical activity might improve the immune system and immune response toward viral antigens and reduce viral infections in the long term (Campbell & Turner, 2018). Another study concludes that Spanish older people who carried out the regular physical activity during the pandemic could receive a positive impact on their resilience in the form of locus, self-efficiency, optimism, and lower symptoms of depression (Carriedo et

al., 2020). Maintaining physical activity is essential for the elderly, especially those with chronic conditions as it can decrease the possibility of chronic low-level inflammation and increase various immune markers in several disease statuses which include cancer, cardiovascular disease, diabetes, and obesity that might occur during the pandemic (Cunningham & O'Sullivan, 2020). This is in line with a series of activities done by 30 active elderly women in this study. Based on the observations, the nature of the elderly's physical activity and exercises during the pandemic remained indistinguishable compared to before the pandemic which corresponds to the ministry of health's recommendations about maintaining body fitness and increasing immunity through exercising to prevent the infection of the virus.

Mild, moderate, and heavy physical activities were carried out by the informants

before and during the pandemic. However, the informants' sports activity spaces are different. Before the pandemic, mild physical activities include long-distance walks which were executed in front of the informants' houses or a treadmill while heavy physical activities include cycling and gymnastics. During the pandemic, cycling and gymnastics were diverted at home with stationary bikes or practicing them virtually.



Figure 9. the informant was cycling on a treadmill

Source: 2021 survey



Figure 10. informant was doing virtual gymnastics

Source: 2021 survey

Social Activity

During the Covid-19 outbreak, many social activities in the community were disrupted and canceled to anticipate the spread and transmission of Covid-19. The informants'

activities have also been impacted by the pandemic in which changes and adjustments must be made. Social gatherings used to be conducted in one particular place but now, it must be done virtually so that informants might carry out activities at home. Weekly dues for the social gathering could be transferred using the informants' bank account or by simply visiting the committee chairman's house to hand over the dues without entering their houses while adhering to health protocols by keeping a distance, wearing a mask, or other personal protective equipment like hand sanitizer and consistently washing hands. Pre-pandemic activities that used to be done with neighbors or closest communities like visiting friends that are ill or celebrating holidays, can now only be done in small groups or with relatives. The elderly's 'Posyandu' schedule, like weekly or monthly check-ups, was conducted through video conferences or online consultations. If an informant was ill, they would be brought by the health team directly to the local health center.

Spiritual Activity

Before the pandemic, all public (joint) spiritual activities were managed in person (through verbal communication). However, during the pandemic, age restrictions were imposed on those who could attend religious buildings like mosques and churches. This situation forced the informants to conduct independent religious activities at home in various ways such as using a cellphone for Youtube streaming. Despite the pandemic situation, the informants still attempted to be dedicated to their religious activities with the help of communities from churches or mosques. The community church, the informants' place of worship, attempted to urge the informants to pray regularly by handing them the online prayer schedule so that they can join daily live streaming. This was acted similarly by the Muslim informants, whom they conducted Koran recitations during the pandemic via WhatsApp video calls together with the recitation group. They were also given certain links suggested by the religious group leader.



Figure 11. an informant was listening to a religious content suggested by the recitation group leader on Youtube
Source: 2021 survey

Activity Spaces During the Pandemic

Spaces that were used during the pandemic were shrinking. This happened due to social restrictions and physical distancing policies which limit outdoor activities. In this situation, the informants transferred all outdoor activities indoors or in their spaces as they

worried about the spread of the virus. The following are activities, spaces, and spaces used by the informants during the pandemic.

CONCLUSION

The results show that before the pandemic, elderly women were actively involved in various activities carried out at both indoor and outdoor hosing spaces. However, due to the government policy regarding social distancing, depreciation occurred in the spaces that were used for certain activities from the scale of neighborhood spaces to the home spaces. The informants obeyed the government’s guidelines by refraining activities in outdoor spaces. During the pandemic, certain activities involving many people were not carried out simultaneously but consecutively through a virtual or online platform at home. This study shows that there is a shift of the activity space of the elderly from the neighborhood into their home during the pandemic. It causes the limita-

Table 2. The Informants’ Activity and Space During the Pandemic

Activities	Indoor Spaces	Outdoor Spaces
PHYSICAL ACTIVITIES		
a. Exercising		
Stretching	Terrace	-
Jogging and running	Terrace / front yard	
Gymnastics	Living room / family room	-
Cycling	Living room / family room	-
b. Mild Physical Activity		
Reading	Family Room, Bedroom	-
Watching TV	Family Room	-
Listening to a radio	Bedroom	-
Singing	Family Room	-
c. Moderate Physical Activity		
Gardening	Terrace	-
Taking care of pets	Terrace	-
Crafting	Family Room	-
d. Heavy Physical Activity		
Finishing chores	All indoor spaces	-
Nurturing grandchildren	All indoor spaces	-
Social Activities		
a. Social gathering	Living Room / Family Room	-
b. Celebrating feasts	-	-
c. Visiting ill friends	-	-
d. Joining ‘Posyandu’	Living Room / Family Room	-
Spiritual Activities		
a. ‘Qosidahan’ (Chanting Muslim poems)	Living Room / Family Room	-
b. ‘Pengajian’ (Reciting Koran)	Living Room / Family Room	-
c. Sunday Services	Living Room / Family Room	-
d. Independent prayers	Bedroom	-
e. Spiritual tourism	Living Room / Family Room	-

Source: 2021 Survey

tions of the elderly's space for movement and direct social communication. However, the elderly are still active even though only in their home. Social contact can still be done using the phone / virtual . This phenomenon provides an understanding of the importance of residential design that pays attention to spaces that can accommodate the activities of the elderly as long as the elderly cannot do outdoor activities due to conditions that endanger their health. It is hoped that the elderly can remain active and healthy as mandated by WHO (WHO, 2013) .

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