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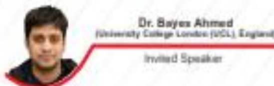
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Disaster Mitigation for Elderly: The Challenges of Social Welfare Services for Elderly in The COVID-19 Pandemic

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Abstract. This study aims to determine the achievement of disaster mitigation in handling COVID-19 for the elderly through social welfare services. The elderly are the age group that has the highest risk of death due to the COVID-19 pandemic. This research is descriptive qualitative using in-depth interviews, observation, and documentation. Respondents selected by purposive sampling included government agencies, elderly families, social workers, nursing homes, senior regional commissions, the Yogyakarta Province COVID-19 task force, and the elderly. The study found that disaster mitigation in handling COVID-19 for the elderly was not optimal in lesson learn of understanding and knowledge to the elderly. The result of an emergency response plan has not been responsive because there is no accurate database and systematic and integrative standard procedures in handling the COVID-19. Thus, the assisted early warning system is already running well because of the integrated coordination from the family, local government to the national level in the authority of the COVID-19 Task Force. The mobilization of resources needs has not been able for the particular needs of the elderly during the COVID-19 pandemic in several areas in Yogyakarta Province, especially for neglected elderly. Therefore, the findings of this study recommend optimizing each stage in disaster mitigation to minimizing the risk of death in the elderly effectively.

1. Introduction

COVID-19 is a disaster that occurs in every country. COVID-19 outbreak considered a non-natural disaster. Due to caused by non-natural events or series of events, including technological failure, modernize failure, and disease outbreaks [1]. In general, the factors causing disasters are due to the interaction between threats and vulnerabilities. Currently, COVID-19 has become a pandemic due to the rapid increase in the number of cases and massive human-to-human spread, resulting in a global humanitarian and social disaster. WHO data (2020) shows that the number of COVID-19 sufferers in the worlds has reached 94,124,612 people, with 2,034,527 deaths [2]. In Indonesia, cases of COVID-19 as of March 31, 2020, has invected 1,528 people with 136 deaths and 81 recovered. A high risk of death globally occurs at the age of over 50 years, while in Indonesia at more than 40 years. The most deaths occurred in people with COVID-19 who were 80 years old. According to WHO and CDC report, the mortality rate of pre-elderly (50-59 years) is almost 2%, middle-elderly (60-69 years) 4%, and old-elderly (above 70 years) 15%. Most deaths occurred in people with COVID-19 aged 80 years and over, with a percentage reaching 21.9% [3]. Yogyakarta Province-as the highest number of elderly in Indonesia-has achievements as of April 2020 as many as 67 cases of

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patients being treated, with seven deaths, all of whom are elderly. Meanwhile, the total number of people under surveillance is 3,692 people spread across the province [4].

Elderly is one of the population age groups that have a high proportion of the population in Indonesia. Nowadays, Indonesia facing an ageing population due to the number of the elderly increases 10% in 2020 with a predominantly percentage of the number of young elderly (60-69 years) of 63.82% followed by middle elderly (70-79 years) of 17, 68%, and the elderly. old (80+ years) by 8.50% [5]. Meanwhile, the number of elderly in Indonesia counted at 25.7 million in 2019, or around 9.6% of the population. More specifically, in 2019 Yogyakarta Province had the highest proportion of elderly in Indonesia at 14.5%, followed by two other provinces in Java, namely Central Java Province and East Java Province, each with 13% [6]. Thus, the largest number of elderly in Indonesia increase the risk of COVID-19 in the elderly. This due to the elderly are vulnerable to infectious diseases and chronic diseases as the immune system decrease, all organ functions and movement functions are reduced [7]. However, Indonesia does not have a special procedure for handling elderly COVID-19 patients that can reduce the risk of death and reduce the burden of care costs for families. Therefore, disaster mitigation based on social welfare services needed for handling COVID-19 for the elderly.

In handling COVID-19, the most effective way to reduce the risk of death in the elderly is through family-based social welfare services. This is based on the fact that the majority of people in Indonesia prefer to take care of their parents themselves at home rather than send them to a nursing home. A recent report in 2019 shows that only less than 6% of respondents in Indonesia agree to send their parents to a care institution rather than taking care of them themselves [8]. This tendency makes the burden of elderly care costs under the full responsibility of the family. Elderly care should also be the responsibility of the state. Therefore, the government needs to provide a supporting health system, such as providing assistance to families and providing assistance in the form of medicines for elderly patients and assistance with personal protective equipment for families who care for them during this pandemic. This paper will discuss the challenges of disaster mitigation based on social welfare services for the elderly in handling the COVID-19 pandemic in Yogyakarta Province, Indonesia.

2. Literature Review

Disaster mitigation for the elderly can through social welfare services. Disaster mitigation is a series of efforts to reduce disaster risk, through physical development as awareness and increased capacity to face disaster threats. Mitigation activities carried out through (1) spatial planning implementation; (2) development policy, infrastructure development, building layout; and (3) providing education, counselling, and training both conventional and modern [9]. According to the Indonesian Institute of Sciences (LIPI) and the United Nations Educational, Scientific and Cultural Organization (UNESCO), four factors influence disaster preparedness, namely: (1) knowledge and attitudes towards disaster risk, (2) plans for disaster emergencies response, (3) early warning system, and (4) capacity for resource mobilization [10].

Social welfare is an institution or social welfare field that involves organized activities organized by both government and private institutions to prevent, overcome to solving social problems and improving the quality of life of individuals, groups and communities. Social welfare is a condition for the material, spiritual, and social needs fulfilment of citizens to live and develop themselves properly in social functions [11]. Thus, social welfare reflected as a condition of individuals, groups and communities with the fulfilment of life's needs such as physical, psychological, and social needs so everyone can carry out roles in society according to their duties, functions and basic needs.

Social welfare services are a form of disaster mitigation in handling COVID-19 for the elderly. This form can be conducted guidance, counselling, assistance, compensation and care a directed, planned and sustainable manner. Furthermore, social welfare services provided through:

a. Services based on nursing homes for the elderly and community-based. Elderly home-based services are a form of service that places service recipients in elderly homes. Meanwhile, community-based service is a social welfare service form that the recipient outside nursing home institutions (orphanages), for example, family, community and others;

b. Elderly social institution is the process of social welfare service activities for the elderly in coordination starting from the planning stage, that carried out by organizations/institutions, both formal and informal;
c. Social protection is an effort by the government and society to provide easy services for non-potential elderly to realize and enjoy a reasonable standard of living [12].

Elderly is someone aged 60 years and over who has specific physiological, social, spiritual, and psychological needs because they are degenerative. The elderly supposed to someone who reached the age of 60 years and over. The elderly can be classified into (1) Potential elderly as a productive elderly due to still able to do work and activities, (2) Bedridden elderly as an unable elderly to make a living resilience so that their lives depend on the help of others [13]. The more comprehensive characteristics of the elderly are as follows: (1) Over 60 years of age; (2) Has needs and problems that vary from healthy to sick, from psychosocial to spiritual needs, and from adaptive to mal-adaptive conditions; (3) Affected by varying living environmental conditions [14]. The characteristics of the elderly have an impact on changes that occur in the elderly include:

a. Physical changes: which include physical changes, including changes in cells, cardiovascular, respiration, breakfast, musculoskeletal, gastrointestinal, genitourinary, bladder, vagina, hearing, vision, endocrine, skin, learning and memory, intelligence, personality and organization, and achievement ;
b. Social change: which includes social change, including changing roles, family (emptiness), friends, abuse, legal issues, retirement, economy, recreation, security, transportation, politics, education, religion, nursing homes;
c. Psychological changes.

3. Methodology

The design of this study is research and development, which carried out continuously for two years. Data collection techniques in this study used the method of observation, in-depth interviews, focus group discussion, and documentation studies. Resource taking is done by purposive sampling method, namely by determining resource persons according to expertise and expertise in the field of disaster management and social services for the elderly, including bureaucrats, practitioners, social observers and public services, academics, and verifiers for the development and application of models. In this study, data analysis used a qualitative descriptive approach. The results of the first year research were intend to determine the results of the results of the implementation of social services for the elderly in Yogyakarta Special Region and to form a model of participatory social services for the elderly. In the second year it was intended to determine the development of factual data on the elderly and obtain the results of the development of a disaster management strategy oriented to social protection for the elderly in disaster emergency conditions in Yogyakarta Special Region. This research is very important because research studies on social protection for the elderly in disaster emergency conditions are still limited.

The credibility of the research was fulfilled through the use of the research data source triangulation technique, namely through three checking stages: First, triangulation of data sources, which is comparing the data from observations, in-depth interviews, and documentation. Second, peer review to find out the opinions of researchers and experts who conducted similar research. Third, theoretical triangulation, namely comparing empirical data with theoretical studies that have developed and are recognized as true. Fourth, researchers conducted data analysis to obtain valid and reliable data [15]. This research is focusedon Yogyakarta Special Region with considerate of: (1) Yogyakarta Special Region is an area that has the highest life expectancy in Indonesia; (2) The proportion of the elderly in Yogyakarta Special Region is the highest in Indonesia and the distribution ratio of the number of elderly people in the districts / cities is there; (3) Yogyakarta Special Region has the potential for disaster; and (4) fulfilling the need for social protection for the elderly becomes an important matter and must be done immediately.

4. Result and Discussion

4.1. The Vulnerability of the Elderly in the COVID-19 Pandemic

In the COVID-19 pandemic, the elderly have the highest vulnerability as victims. Even the death of the elderly due to COVID-19 has dominated the highest. Referring to WHO data, more than 95% of deaths from COVID-19 occur in people over 60 years of age. More than 50% of all deaths involve those aged 80 years or older. According to the WHO reports showed that 8 out of 10 deaths occur in individuals with at least one comorbidity, particularly those not only with cardiovascular disease, hypertension and diabetes, but also in various other chronic conditions. The cause is the elderly have experienced physiological, social, spiritual, and specific psychological degeneration. Physiologically, the elderly must face decreased organ function, body metabolism, dementia and limited physical mobility due to degenerative factors.

In the spiritual and psychological aspects, during the COVID-19 pandemic, the elderly often experience excessive spiritual and psychological anxiety because of the high risk of death in the elderly. The limitation on the accessibility of social activities during the COVID-19 pandemic has an impact on the fear and anxiety of the elderly. Emotional reactions can be observed in individuals who are victims. There are three stages of an emotional reaction that can be catastrophic:

a. Individual reactions immediately 24 hours after the disaster are: (1) Tense, anxious, panicked, (2) Stunned, shock, distrustful, (3) excited or euphoric, not feeling too much suffering, (4) tired, confused, (5) Restless, crying, withdrawing, (6) Feeling guilty;
b. Individual reactions from the first to the third week after the disaster: (1) fear, alertness, sensitivity, irritability, difficulty sleeping, (2) worry, very sadness, (3) reoccurring events, (4) sadness, (5) reactions positives that are still possessed: hope or think about the future, get involved in helping and saving activities, (6) Accepting disasters as destiny. This condition is still a response that requires minimal psychosocial action;
c. Individual reactions more than the third week after the disaster. The reactions shown can be applied and manifested by fatigue, panic, sadness continuously, pessimism, unrealistic thinking, inactivity, isolation, and withdrawal. Anxiety is manifested by palpitations, dizziness, fatigue, nausea, headaches, and other symptoms of health problems. Some of the survivors of the disaster may experience acute mental disorders that arise from several weeks to months after the disaster. Some of these disorders include acute reactions to stress, grieving and mourning, diagnosed mental disorders, adjustment disorders. This condition requires psychosocial assistance from health professionals [16].

Meanwhile, socially, the elderly also have social welfare vulnerabilities during the COVID-19 pandemic. This is related to the high socioeconomic status of the elderly who are categorized as poor. The elderly are faced with the fact of poverty due to limited accessibility of physical productive economic sources and accessibility of social welfare sources. The highest number of neglected elderly people in Yogyakarta Province in 2017 was in Gunungkidul Regency with a total of 18,420 people and the lowest was in Yogyakarta City with 1,549 people. Meanwhile, the number of neglected elderly people in Kulonprogo Regency is 9,336 people, Bantul Regency is 9,278 people and Sleman Regency is 7,128 people [17].

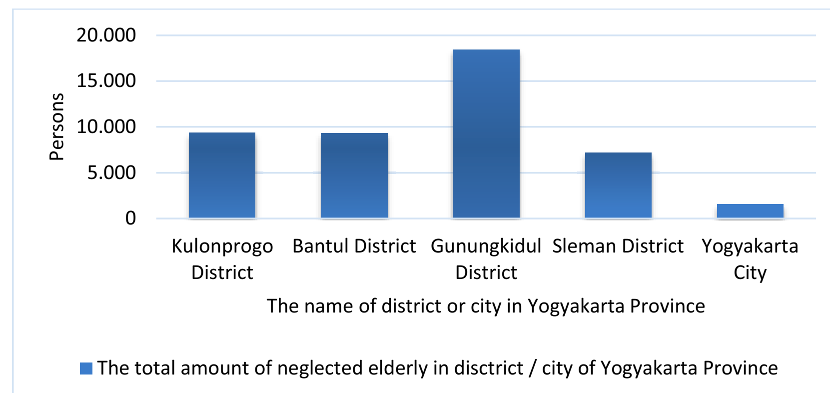

Figure 1. The total amount of neglected elderly in Yogyakarta Province on 2017

Source: Social Agency of Yogyakarta Province, 2018.

Based on the data analysis in the figure, it shows that the distribution of the number of neglected elderly people in Yogyakarta Province is more in districts that have rural characteristics than urban areas that have urban characteristics. This indicates that rural areas are highly prone to poverty compared to urban areas. Although on the other hand, rural areas actually have a higher potential source of social welfare than in urban areas because of the strong values of local wisdom and social capital possessed by local communities.

4.2. Disaster Mitigation Based on Social Welfare Services for the Elderly in Handling COVID-19

Efforts to minimize the social impact of the COVID-19 pandemic require disaster mitigation. Disaster mitigation is efforts to reduce disaster risk, both through physical development as awareness and increased capacity to face disaster threats. The scope of disaster mitigation is to reduce the risk of disaster impacts including health, safety and public welfare issues [18]. All stages in disaster mitigation reduce risks to human life sustainably now and then. Mitigation's activities carried out through (1) Spatial planning, (2) Development arrangements, infrastructure development, building layouts, (3) Education, counselling, and training both conventional and modern [19]. The principles of disaster management include: (1) Fast and precise. Disaster management should implement quickly and appropriately according to the circumstances; (2) Priority. In disaster management should be given priority to save human lives; (3) Coordination and Integrity. Disaster management constructed on good coordination and mutual support; (4) Efficient and effective. Disaster management activities must be implemented effectively, especially in overcoming community difficulties by not wasting excessive time, effort and cost; (5) Transparency and accountability. Each funding and implementation can be done collaboratively from various parties, including government, private sector, non-governmental organizations, non-governmental organizations, and donor agencies. The use of the budget must be accounted for through an audit as a form of accountability; (6) Partnership. There must be cooperation and partnership between the community and the government in handling disaster situations. This partnership is sustainable and requires a strong commitment; (7) Empowerment. Community empowerment is one of the most urgent parts of disaster management to optimize and minimize the impact of existing losses; (8) Fair and non-discriminatory. In providing disaster management, it does not give different treatment to gender, ethnicity, religion, race and any political ideology; (9) Nonprolition. In assisting, all parties are not allowed to impose their beliefs in times of disaster.

Disaster mitigation based on social welfare services for the elderly in handling COVID-19 carried out by the Yogyakarta Province COVID-19 Response Task Force with the following stages:

a. Preventive and promotive stages. The steps taken in the precondition stage are to provide information that is holistic, clear and easily understood by the elderly. This information

includes the prevention and handling of COVID-19. Information conveyed through public communication effectively and intensively by various parties.

b. Delivery Stage. This stage includes the physical, health, psychosocial and psychosocial needs of the elderly during the COVID-19 pandemic.
c. Assessment stage. This stage includes identifying the physical, health, psychosocial and psychosocial needs of the elderly during the COVID-19 pandemic. The needs of the elderly during the COVID-19 pandemic include psychological guidance and spiritual guidance, healthy nutritious food, masks, face shields, hand sanitiser, hand washing soap, diapers, vitamins, and traditional medicine, light exercise at home, health care guidance based on COVID-19 health protocols. The regional COVID-19 Task Force to the village level conducts early detection and screening of the elderly through health centres and hospitals to reduce the high elderly death rate due to COVID-19. If the test results show positive, the elderly referred and treated to a referral hospital. COVID-19;
d. The Mentoring stage. Assistance is provided through strict COVID-19 health protocols when providing social welfare services by elderly social workers. The assistance is also carried out on the basis of elderly families and communities so that they can protect and educate each other as the main support system. Currently, assistance can also be provided through online health applications;
e. Monitoring and evaluation stage. The results of monitoring and evaluation are used as input in the formulation of policies and programs for handling COVID-19 in the elderly [20].

4.3. Opportunities and Challenges in Mitigation of Handling COVID-19 for the Elderly in Yogyakarta Province

In carrying out efforts to mitigate the handling of COVID-19 for the elderly in Yogyakarta Province, there are several opportunities. This opportunity can improve the handling of COVID-19 for the elderly and reduce the high risk of death in the elderly. These opportunities include:

a. Potential sources of social welfare in the community include the value of local wisdom and community social capital which is still strong;
b. Developments in information technology that have contributed to creating various online health applications and COVID-19 early detection applications so that they can provide education for the elderly;
c. Support policies for handling COVID-19 that integrated locally, nationally and internationally;
d. Engagement of stakeholders to handle the COVID-19 pandemic morally and socially.

However, some challenges have the potential to undermine the results achieved. The mapping of the challenges faced in handling the COVID 19 pandemic, namely:

a. The database does not review in properly and correct manner so that the information becomes less accurate;
b. Distortion of technology and information. The rapid development of technology has turned out to be an obstacle for the elderly in accessing it due to technological gaps. Also, the flow of information about the COVID-19 pandemic from various sources is difficult to identify whether valid or fake for the elderly;
c. Limitations of health workers, health facilities, and special assistants for the elderly in handling COVID-19;
d. Limited understanding and abilities of the elderly.

4.4. Discussion

Disasters can be particularly disruptive to the daily living of older adults and their caregivers. Chronic conditions that exist prior to an emergency can be exacerbated, equipment damaged or lost, and services or treatments interrupted, causing additional harm or stress [21]. Older persons are a very diverse group; not all older persons are equally vulnerable to hazards. Therefore, it is important to identify those who are vulnerable. The degree and severity to which older persons are affected in emergencies and disasters depend on the specific characteristics of the person, the type and severity of the hazard, the disaster management systems in place and the interactions among the three. Advanced age itself does not constitute vulnerability, but rather the problems common in old age often increase vulnerability. These can include deteriorating physical and mental ability, decreased strength, low tolerance for physical activity, functional limitations and decreased sensory awareness. Planners and policy makers should be aware of these factors and consider them when planning to meet the needs of older persons in disasters [22].

5. Conslusion

The results of disaster mitigation in handling COVID-19 for the elderly are still low. The failure in disaster mitigation showed from the high mortality rate in the elderly. This problem is due to the high dependence of the elderly on other people. Also, the elderly have less understanding and knowledge of COVID-19 and its health protocols. The emergency response plan that has been designed by the government has not been able to affirm the specific needs of the elderly. The best way to provide an emergency response is through family-based social welfare services and assistance from elderly social workers integratively. The logistics mobilization of the elderly needs can deliver by the closest chain system. Disaster mitigation results optimized by strengthening understanding and knowledge through socialization, internalization of the COVID-19 protocol, service assistance, and database integration. The results of disaster mitigation showed that knowledge about the dangers of COVID-19 by the elderly does not achieve to implement the COVID-19 protocol. There are due to (1) the COVID-19 health protocol is new to the elderly and can not adapt; (2) the elderly's motivation and willingness to comply with the COVID-19 health protocol is still low; (3) local thought patterns, habits and culture that hinder the internalization of life values during the COVID-19 pandemic. Furthermore, it is necessary to increase promotion and outreach to internalize new life values for the elderly. In the aspect of the emergency response plan carried out for handling COVID-19 for the elderly in Yogyakarta Province, it has not been responsive. After all, there is no accurate database and systematic and integrative standard procedures in handling the COVID-19 protocol for the elderly because there are no special procedures that applied to the elderly. Thus, the assisted early warning system is already running well because of the coordination from the family level, neighbourhood, sub-district / village, sub-district, district/city, provincial to national level integratively under the authority of the COVID-19 Task Force. The early warning system built is based on technology and information through applications, mass media and social media. This early warning made the public more aware of official information. Publication of this information can be done online and interactively by authorized parties to ensure that this is valid. The mobilization of resources needed by the elderly has not been able to meet all the specific needs of the elderly during the COVID-19 pandemic in several areas in Yogyakarta Province, especially for neglected elderly. The caused factors are location accessibility, limited human resource capacity, budget constraints, and logistics limited. Ideally, this resource mobilization should be able to increase understanding and skills in responding to emergencies. Thus, this study suggests increasing the achievement of each stage in disaster mitigation. Reducing the risk of death in the elderly can be through by staying healthy at home, community-based integrated care, and adapting to a new normal life.

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References

[1] WHO (2020, Desember 12) *WHO Coronavirus Disease (COVID-19) Dashboard* Retrieved from https://covid19.who.int/?gclid=CjwKCAiAxp-ABhALEiwAXm6IycB33vP--rSS0JsvsEMfiGJ39cY0_RWcxFqorqKISLxh6WZEFk_mlRoCtLsQAvD_BwE.

[2] Ministry of Health of The Republic of Indonesia (2020, Desember 10) *Preparedness Facing COVID-19* Retrieved from https://www.kemkes.go.id/article/view/20012900002/Kesiapsiagaan-menghadapi-Infeksi-Novel-Coronavirus.html.

[3] Yogyakarta Provincial Health Office 2020 *Progress Report of COVID-19 in Yogyakarta Province* (Yogyakarta: Yogyakarta Provincial Health Offive).

[4] Katadata (2020, December 12) *Proportion of Elderly Population in Yogyakarta* Retrieved from (https://databoks.katadata.co.id/datapublish/2020/05/29/proporsi-penduduk-lansia-di-yogyakarta-tertinggi-di-indonesia#).

[5] COVID-19 Task Force of Republic of Indonesia (2020, December 6) *Analisis Data COVID-19 Indonesia* Retrieved from https://covid19.go.id/p/berita/analisis-data-covid-19-indonesia-update-6-desember-2020.

[6] Central Bureau of Statistics of the Republic of Indonesia (2019) *The Profile of Elderly in Indonesia* (Jakarta: Central Bureau of Statistics of the Republic of Indonesia).

[7] The National Team For The Acceleration of Poverty Reduction (TNP2K) of Republic of Indonesia (2020, September 18) *Vulnerability of the Elderly Amid the Covid-19 Outbreak: Efforts to Ensure Comprehensive Social Protection to Address Vulnerability* Retrivied from http://tnp2k.go.id/articles/vulnerability-of-the-elderly-amid-the-covid-19-outbreak:-efforts-to-ensure-comprehensive-social-protection-to-address-vulnerability.

[8] The Conversation (2020, December 12) *The Death Risk of the Elderly With Covid-19 Is High But Health Services Are Not Yet On Their Side What Should To Do* Retrievied from https://theconversation.com/risiko-kematian-lansia-dengan-covid-19-tinggi-tapi-pelayanan-kesehatan-belum-berpihak-pada-mereka-apa-yang-harus-dilakukan-138107).

[9] Law Number 24 of 2007 of Republic of Indonesia article 47 paragraph 2 concerning disaster management.

[10] LIPI - UNESCO/ISDR 2006 *Assessment of Community Preparedness in Anticipating Earthquake and Tsunami Disasters* (Jakarta: LIPI - UNESCO/ISDR).

IOP Conf. Series: Earth and Environmental Science **884** (2021) 012048 doi:10.1088/1755-1315/884/1/012048

[11] Fahrudin, A. 2014 *Pengantar Kesejahteraan Sosial* (Bandung: Rafika Aditama).

[12] Khotimah, N; Fitriana, K.N; and Pratiwi, P.H. 2019 *Handbook of The Implementation of Participatory Social Service Model for the Elderly* Yogyakarta: Yogyakarta State University Press.

[13] Law No. 13 of 2008 of Republic of Indonesia concerning Elderly Welfare.

[14] Keliat, B. A. 1999 *Gangguan Konsep Diri Edisi 1* (Jakarta: EGC).

[15] Miles M. B. and Huberman A. 1994 *Qualitative Data Analysis : An Expanded Sourcebook (*London: Sage Publications, Inc).

[16] Kristanti 2013 *Kesiapsiagaan Masyarakat terhadap Bencana Gempa Bumi di Dusun Piring Desa Shardono Kecamatan Pundong Kabupaten Bantul Yogyakarta (*Yogyakarta: Cipta Pustaka).

[17] Social Agency of Yogyakarta Province. (2018). *Profile of the Neglected Elderly in Yogyakarta Province.* Yogyakarta: Social Agency of Yogyakarta Province.

[18] Sylves, R. 2008 Disaster *Policy and Politics, Emergency Management and Homeland Security* (Washington DC: CQ Press).

[19] Law Number 24 of 2007 of Republic of Indonesia Article 47 concerning disaster management.

[20] Kunocorowati, P. W. and Fitriana, K.N. 2020 *Development of a Social Welfare Service Model for the Elderly in Handling COVID-19 in Yogyakarta Province.* (Yogyakarta: Yogyakarta State University).

[21] Department of Health and Human Services of United State of America (2020, December 12) *Disaster Preparedness Planning for Older Adults* Retrievied from https://www.phe.gov/Preparedness/planning/abc/Pages/older-adults.aspx.

[22] WHO 2012 *Pan American Health Organization Guidelines for Mainstreaming the Needs of Older Persons in Disaster Situations (*Washington D.C.: PAHO) Retrivied form https://www.who.int/hac/events/disaster_reduction/guide_for_older_persons_disasters_carib.pdf.