Aging Management Model at Dayakan Village—Kulon Progo District, Yogyakarta Special Province

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Village community has not been fully knowledgeable and has not well informed the resilience of the value of aging community participation management. The knowledge limitation of the community participation management and the procurement of elderly community participation management, trained care giver, and some other facilities to be the reason for not dealing with the elderly management, rather than putting them on nursing home or even living alone. Elderly friendly and some potential elderly, and at the same time the increasing number of elderly population are not managed well. The objective of the research is to develop a model for resilient and toughness of the elderly.

The method applied qualitative research by applying an operational research process. The management principle named Planning, Organizing, Actions and Controlling (POAC) is applied during the study. The results found an integrated model for the household with elderly through community and family participation, as well as the intensifie training, integrated elderly management with private sector and community based participation. The commitment of the respective local institution dealing with elderly management supports the success of the study. The results of the study show there are $p$-values < 0.005 of significant differences in the intellectual, social, spiritual, environmental, and emotional dimensions before and after following the study intervention. However, there is no difference in the physical dimension with the $p$-value = 0.377. Moreover, the robust of the elderly can be measured through the indicators of the four activities, namely healthy, active, and productive and self-reliance to be inaugurated at Strata 1, Strata 2 and Strata 3. The recommendations from the model: There are some factors can be replicated under the similar circumstance to support the success of the aging management through local wisdom responsibility, creative and inovative activities, self-adiminstered monitoring, and supervision.

Keywords: aging management, integration, seven dimension, community participation, POAC
Introduction

Indonesia Statistics report the increased number of the elderly population from 7.6% in the year 2012, to 9.8% in the year 2020. In fact, among 34 provinces, Yogyakarta Special Province is the most population elderly with its elderly age group. Nationally and locally, the community has not been fully knowledgeable and has not well informed the resilience of the value of aging community participation management.

The people from the age 60 years and above are categorized the elderly. In the global population, currently there is 9.1% elderly population. By the year 2012, Indonesian Statistics reported 7.6% elderly population. The elderly population increase into 9.8% based on the 2020 Population Census. The number of the elderly is predicted up to 11.6% in 2030. This number is estimated to increase 21.1% of the total population projected by 2050. According to the World Health Organization (WHO) standard of aging population as much as 10% of elderly, therefore, currently the Indonesia nation is in aging population process. The Indonesian nation as part of the global commitment on the Sustainable Development Goals (SDGs) convention supports the well-being of the elderly via protecting human and economic rights, access to health services, life-long learning, and the provision of supports both formal and informal (Ahmad & Ismail, 2011). From the same source, approximately only 25% elderly receive an old pension, while the rest 75% have to struggle on living without old age pension and working in non-formal sector and no age security at all.

To support the WHO 2020-2030 Plan of healthy ageing, Indonesian people need a collaboration with various sectors to support the elderly programs and activities, and need to develop elderly-friendly communities, integrate various social and health services in the community that focuses on elderly, and provide the access for long-term care on elderly who experience limitations (Beh, 2010). As the Chief of Indonesia National Population and Family Planning Board (BKKBN) proposes that his staff should focus on the elderly in the quadrant 4 that is vulnerable or less potential and lacking of skills.

The government and the community through people center development program should be encouraged to develop in their respective areas by referring to the national development program. In terms of wellbeing, people in the grass root level become the main actors in the development activities. Therefore, the people development center process should be the main the principles from, by, and for the community and the people as well. The elderly management based on the Law Number 13/1998 to improve social well-being is granted as the form of honour and reward for the elderly, including educational and training services (Chang, Bae, & Park, 2012).

The BKKBN formed Bina Keluarga Lansia (BKL) program since the year 1980 as the platform of community groups consisting of families living with elderly that aims to improve knowledge, attitude, behaviour, and skill of elderly families to enhance the elderly life quality (Chang, 2014). The targets of such activities are elderly themselves and elderly families. The implemented main activities include counseling, home visit, assistance, record keeping, and reporting. In contrast, the development activities of BKL are activities related to seven dimensions of robust elderly (D’Haem, Feola, & Norris-Bauer, 2011). The seven dimensions include physical, intellectual, social, spiritual, environmental, vocational, and emotional. In the development of elderly programs within the community, cooperation with people and universities is required to study the framework compatible with the cultural condition of the community (Elham, Hazrati, Momennasab, & Sareh, 2015). Unfortunately, the decentralization era, since the early 2010, affect almost the community program run by BKKBN lacking of district support and attention including the elderly program named BKL. This is due to the district budget and human resources issue.
A partnership program between the public or government program with non-government organization (NGO) has been long time ago conducted by the BKKBN. For example, the family planning program since the year 1970 has involved religious leader, universities, monetary institutions, and the other private sectors. Even though the rise of public-private partnerships (PPPs) in China is relatively new in China, it is worth it now for Indonesia nationwide to refresh, especially since the decentralization era in the year 2010 (Erwanto, Kurniasih, & Amigo, 2018). It is recommended that other countries’ experiences be drawn upon as comparisons and lessons learnt for better governance of PPPs in China (Harada et al., 2019).

To support and develop the existing elderly program, in the year 2020, a study has been conducted to develop the elderly program. The study was conducted by the representative of BKKBN of Yogyakarta Special Region. The idea is to develop a model with an institution, namely Yayasan Indonesia Ramah Lansia (Indonesian Elderly-Friendly Foundation) through an elderly school program. The institution manages an informal school for elderly to educate healthy elderly in the family. The elderly school is an informal education that does not only learn about physical health aspects, but also relate to the elements of the physical health itself, namely social, psychological, economic, environmental, and spiritual aspects also within this school (Ivanoff, Sonn, & Svensson, 2002).

For almost a year, the study develops aging management model using a qualitative approach. The design applied qualitative research through implementing an operational research process during the year 2020 (February-November). Field data information was collected through a focus group discussion (FGD) and some in-depth interviews at Dayakan Hamlet, Kulonprogro District, Yogyakarta Special Province in the Republic of Indonesia. The interviewed respondents came from village officials and community representatives in one hamlet. The number of 42 informants of 62% of female elderly and 38% of elderly male and some formal and informal leader get involved in the model.

The information collected is based on the problem identification: who were the existing human resources (caders), the family planning field worker, the related human resources dealing with the elderly program or activities, the elderly group participation activities, the availability of guidance, when and where the activities conducted, and information of the supporting human resources and the local budget. The stages of operation ran through an operational research (OR) process starting from problem identification, followed by model formulation, intervention, monitoring and evaluation. The activity focus involved only in one hamlet at Dayakan Village. The selection of the research location was purposive. About 10 key informan were addressed with an indepth interview method. The purpose of the study was to develop the existing elderly group activity managed by village community group or has been known long ago with the name of BKL. Due to the COVID-19 pandemic, the family participation in the activities of BKL in Yogyakarta Special Region decreased to 40%-50% in April 2020, before reached 70%-80%. Currently, the elderly activity of is still going on during pandemic COVID-19 through a remote learning. There is a need for a policy in such situation which has not been paid attention to by the policy maker. A policy on an active aging is a must, and apparently there is a similar study conducted by Moulaert and Paris on their study (Moulaert & Paris, 2013).

Among non-government organization who has the elderly program is the University of Respati Yogyakarta. It has the informal school, namely Elderly Friendly School (EFS). The school joins the study to develop BKL activity to develop an Elderly School Integration (ESI). The ESI who involve in the ESI school activity experienced improvement in their quality of life. The health, sleep pattern, and depression statuses influence their quality of life (Papathanasiou et al., 2020; Elham et al., 2015). In addition, to improve the life
quality, elderly who involved in ESI program might be able to have more confidence and life satisfaction (Steultjens, et al., 2004).

In the lifelong learning of this pandemic era, there has been a way to create a new era in the learning process, to be able of developing potential elderly and their contributions in the community; therefore, elderly will feel contended (United Nation, 2019). This elderly school is expected to be capable of improving family resilience, especially in the sector of BKL program. One of the learning in elderly school is the role of the elderly, specifically the elderly who is still potential in their family and community. The purpose of elderly school in Bina Keluarga Lansia (ISLBKL) is embodying seven dimensions of robust elderly, including spiritual, physical, vocational, social, environmental, hobby, and intellectual dimensions. This program is consistent with the guideline about the implementation of seven dimensions of robust elderly in BKL, by BKKBN in 2014, which is referring to the 2013 International Council of Active Ageing. Among the national strategy addressed “Lansia Tangguh” of resilience elderly, the most worthy-awareness for decreasing the national population burdened is the population age group above 60 years, therefore, the elderly are included as part of family empowerment program in order to minimize the national dependency ratio. A study by Witono gives overview information for elderly and family empowerment (Witono, 2020).

The Dayakan Hamlet Pengasih Village, Kulon Progo Regency, Yogyakarta Special Province is characterized with an area of approximately 600.00 ha. Dayakan Village is an agricultural area that has border with the Yogyakarta Capitol City. The Village is a lowland and fertile land that has great potential as a food storage area, even though the area is prone to floods or Merapi mountain eruption. Administratively, the Village consists of 18 hamlets. The Village is one of the less-developed and slightly underdeveloped villages so that the Indonesia National Population and Family Planning Agency has made it a foster partner with the Family Planning Village (Kampung Keluarga Berencana). Since the year 2020, the name has been changed into The Quality Kampung (Kampung Berkualitas). Most of the population at Dayakan Village are farmers. The economy of Dayakan Village is mostly supported by the agricultural sector. Even though it is a rural area, the agricultural management of Dayakan Village has implemented good agricultural practices (GAP), which maintains the quality of its agricultural products.

Results

The Condition of the Elderly Management in the Studied Area

The existing conventional family with elderly group activity (in Indonesian language is Kelompok Kegiatan Bina Keluarga Lansia, its abbreviation is BKL) management is located in the village of Pengasih, Dayakan Hamlet. This community group activity is managed under BKKBN. The activities in the field work together with the Community Health Center (Puskesmas). The existence of the BKL management is based on the initiative and concern of residents who are concerned with the elderly who has recently not been moving progressively.

At the same time, the central Indonesia Friendly Elderly (IRL), which have the central office in Jakarta has some provincial affiliations. One of them is in Yogyakarta Special Province run by the University of Respati Yogyakarta. They have a program which develops curriculum for elderly empowerment, especially to the concern of the elderly health.

Institutionally, the elderly management group (BKL) has not been integrated with the informal School Friendly. The existence of the elderly management groups is more likely as the community participation. The
existing family with elderly in the household or the elderly members group, whose condition is suspended due to lack of support from the local community members, is managed in the hamlet or sub village area.

**Community Behaviour Towards the Family with Elderly Group Activities (BKL)**

The community in general is in the hamlet or village level, and the family with elderly group activity existing in the village belongs to BKKBN. The organic serve of elderly group activities is supposed to be a family supervision under a Family Planning Field Worker (named PKB). The routine activity relies on the community based participation.

Therefore, the study implements an operational research starting from identification, model formulation, intervention, and monitoring and evaluation steps. The study identification showed among 42 informants found more than half aged 60 years and above, female elderly, high school and above, marital status, join the community groups, and still have economic sources.

Therefore, from the identification, it can be found that there is a chance to develop the existing elderly group activities. In collaboration with the Yogyakarta Elderly Friendly informal school, along with the head of the local village and respective parties, a model called “An Integrated School with the Elderly Group Activities” (ISLBKL), an integrated elderly school or in Indonesian language called “Integrasi Sekolah Lansia” is formulated. The combination subjects to deliver elderly management process consisting of planning, organization, actions, monitoring and evaluation process. Subject to reach the goal of model intervention, these are healthy, active, productive and self-reliance elderly through implementing the seven elderly dimensions. As a follow-up, it was agreed to create a book guidance, to guide the model replication to be applied in the similar or homogeny areas.

**Access to Learn and to Do Exercise Through Online Media**

In general, not all of the elderly live with their families, some live lonely. In addition, not all of them posses cell phones, so communication and coordination between the elderly group activities between the program manager and the elderly group are much more easier conducted using indirect communication by the cellular or the smart phones. When identifying the problem, the Family Group of Elderly Activity (BKL) did not had access to the private elderly friendly run by the private institution (The Indonesia Elderly Friendly). A new way to learn by the online application was provided during the model intervention.

The elderly management model is proceeded by measuring the elderly activity daily living. The instrument is abbreviated ADL. The identification found constraints on four aspects, namely trained human resources, capital, methods, and material (facilities and information access). The aspects of the elderly management that support the elderly empowerment include stakeholders’ involvement in the elderly management, interest in the program model being developed, and mentoring activities. The community is interested in the presence of the model. This can be shown by the increase number of the elderly participants in the elderly groups members from both inside and out side of the hamlet that eager to join the school activities.

Meanwhile, when the training was conducted, the participants also performed similar to a formal school: they are school chief, sub group class leader consisting of 4-5 members. The sub group leader needs to have a leadership skill and possess a cellular or smart phone to communicate with the mentor or subject matter presenter (instructor).

**The Problem of Developing Model During Covid-19 Pandemic**

The model problem does work through the existing conventional elderly group of the family with elderly.
This group nationally called BKL. Therefore, it depends on the information technology (IT) and the existing elderly group activity members (BKL) support who is familiar and possesses the cellular device. During the study, there is still local prohibition to meet directly with the community group members. Then the group was devided into sub group to run the activities well. Through these sub-group members, every month between the instructors and the elderly chief group members provided materials using videos and shared guidance. The instructors deliver and supervise the group activities collecting the best practices in the next session that subject to discuss in the following month or session. The program managers and the instructors promise to provide the problem solutions through the sub-group elderly facility. However, in fact, the model does work through an integrated with a private friendly elderly school which make the model become more useful and fruitful, and finally these parties create a new model named an “Integrated School of Elderly with Elderly Community Participation”, named “Integrasi Sekolah Lansia dengan Bina Keluarga Lansia” or abrevited into ISL-BKL.

**Discussions**

According to Figure 1, the implementation of seven dimensions of robust elderly experienced increases except for physical and vocational dimensions. The reason might be that it is during the pandemic Covid-19. Therefore, the remote instruction given through videotaping and exercise doing once in a while monthly are the reason why the physical dimension did not increase. The other reason is that some respondents were having difficulties in implementing the materials related to physical practices, such as the practice for emergency aid because the learning was performed online without being assisted by family. Respondents were having visual and perception decreases, and therefore, when they were sent the materials through video online, the elderly felt incapable of using the existing facility. The objective of the aging management model to develop an integrative and comprehensive model can be performed through working together with multi sectors, experts, both physically and its psycho-social aspects. This is in line with the global challenge in the future, when the aging population coming (United Nation Fund on Population Agency, 2012; World Health Organization, 2020). Besides physical dimension, vocational dimension also decreased. Vocational dimension included training of respondents to increase respondents’ income. In this method, only one material or meeting was given regarding vocational dimension. Elderly should be provided with in-depth materials and direct practices regarding vocational or occupational dimension. The administration of occupational therapy might increase functional skill, social participation, and the quality of life of the elderly should continue to support the SDGs) (Xia & Yu, 2020). The teaching processes in ISL-BKL implemented more daily work or activities of the respondents. Most of the respondents have activities in their garden or goat farms in their houses. Teachers also taught about gardening therapy and the management of cattle waste to be made as fertilizers. Besides gaining incomes, this could also improve the life quality of the elderly. According to the previous study, elderly who performed animal therapy (goat therapy) can increase their moods, so their life quality was increased, and then can reduce the mental illness. This is, however, to be a different story as what Traywick experiencing (Traywick, 2007). Spiritual dimension is the highest dimension that experienced increase after the participation in ESI-BKL. The spiritual/religious intervention might improve spiritual well-being and decrease anxiety on the elderly to mitigate Alzheimer as mentioned by Kusuma (Kusuma, 2013). Elderly with high spiritual well-being experienced better mental health, compared to the elderly who have low spiritual well-being. However, the time constraint and the pandemic Covid-19 condition caused less paid attention and missed during the study to visit the sick people; tahlil recitation, giving charities or donations and attending social functions appeared to be the
less popular activities (Boswick, 2013). In a normal situation, these used to be a part of religious activities because they wanted to dedicate the last years of their life to their God. Erwanto and Amigo suggest developing the brain gym therapy to increase the elderly cognitive (Erwanto & Amigo, 2017).

Figure 1. The seven dimensions test score.

Figure 2 showed the four factors to support the success of the elderly aging management model through planning, organizing, action and controlling process as follows:

Figure 2. Aging management model.

Planning
In order to have the right target, the existing data is a must. First, from the Family Census collected by BKKBN, the aging group population can be identified. These are not merely the family with members of
elderly age of 60 years and above, but also the elderly living alone at home are identified. They are supposed to be the target member of the Elderly Group Activities named (BKL) based on the community participation, however, only few of them join the BKL activities. Under Family Planning supervisor called Penyuluh KB (PKB), the activities mainly run program on elderly, which is the responsibility of the family with living elderly at home. From the BKKBN Central Agency, the field workers give guidance on how to mitigate mainly the elderly dimension. To have a holistic integrative community based activities, the BKL join with the private Indonesia Friendly Elderly Yogyakarta Branch under the University of Respati Yogyakarta. They provide a curriculum for an informal school, proceeded by the measurement tools named activity daily living to have the elderly quadrant. The ultimate plan is to manage the elderly judging by their quadrant. The first plan is to manage the elderly from quadrant I. They are potential elderly, either with high educated or low educated in their past, or even the illiterate elderly.

**Organizing**

The responsibility sector, mainly from the Population and Family Planning Institution (Dinas Pengendalian Penduduk dan Keluarga Berencana) in Kulonprogo District, Yogyakarta Special Province. The BKL program for the elderly group activity in the grass level is coordinated and supervised by the Family Planning Field Worker (the PKB). The main objective of the activity is only for family supervision on how to create a healthy, active, reproductive and self-reliance or robust elderly. To reach the objective, there are seven dimensions for the robust elderly to be applied. The seven dimensions include: physical, emotional, intellectual, social, vocational, spiritual, and environmental.

In order to have a healthy elderly, there is a need to join with the other sectors who have similar elderly target from the local ministry health institution under the Sub District Health Center or “Puskesmas”. In the village level, they have a midwife who is responsible for their program and its activities on elderly health post or “Posyandu Lansia” serve either with or without health matter. She does a medical check-up and giving some supplemental vitamins. Jung and Yoo found the similar situation (Jung & Yoo, 2020).

This integrative holistic elderly group rise a new term called “Lansia Terpadu” that have support from other elderly group called Indonesia Elderly Friendly run under the University of Respati Yogyakarta. This last group has an informal elderly school activity. Through the operational research to develop an informal elderly school integrated with the BKL into a new name Integrated Elderly School-BKL (ISL-BKL).

**Actions**

Since the research happens during pandemic Covid-19, therefore, remote activities could be done by giving video tape exercises, presentation, WhatsApp group communication. In the target group performed an informal elderly groups and sub groups to intermediate the subject matter. For the physical dimension, a video taping of elderly exercise and brain exercise is given. While emotional dimension through maintaining and ability to share activities, such as hobbies, doing some arts and culture activities, for example, the elderly with their passion sharing to younger generation, home visiting, religion group meeting, etc. For the intellectual dimension some role playing or entertainment gaming are given, such as cross-words puzzle. In the social dimension, they are persuaded to have more interaction in the family or in the social community. Some of the potential elderly are doing their farms, and most are thought to utilize their unused empty land by vegetables plantation, or do some home industries. The study shows that spiritual does have the highest delta value, and the similar study can be found at the work of Papathanasiou (Papathanasiou et al., 2020).
Controlling

During the study, the group was given homework that subject to discuss in the next session. The group member participants were eager to meet the next session. The meeting session was very interesting, thus the group members were eager to see again very soon. The activity evaluation was conducted through the remote methods using WhatsApp group application. In a very strict way, the program managers visited in the field to meet the village supervisor, elderly chief group and the sub groups, and some target of the study (the family with elderly and the elderly). From the evaluation process, it was the elderly group member that most likely satisfied with the hospitality of the instructor (the highest average score of 4.36): the subject matter provided, being happy and eagerness attending the meeting (the average score of 4.29 each),

From the evaluation measurement, it can be found the significant level on the seven dimensions before and after implementing the model intervention applying Wilcoxon Ranked Test, only the vocational and physical dimension did not significant. While the rest five dimensions: spiritual, social, environmental, intellectual, and emotional are significant at the $p$ value 0.005 and 95.0% confident interval.

Conclusions

I. The major that increase the elderly score test of the seven dimensions of before and after interventions accordingly are spiritual, social, environmental, intellectual and emotional, while physical and vocational dimensions decrease.

II. All of informants passed from the seven dimensions test at Grade S1 (Strata 1).

III. There is a need of local wisdom responsibility, creative and inovative and attempting elderly activities.

IV. The need of elderly supervision of the elderly program managers, the Family Planning Field Worker, working together with the Indonesia Elderly Friendly and the related sectors.

V. To reach Strata 2 and Strata 3, the elderly should pass from the health, active and productive and the self-reliance indicators.

Figure 3. Aging school of elderly activities and inauguration, year 2020.
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References


