The Effectiveness of Elderly Management Effort Activities towards Geriatric Depression Scale After Eruption of Merapi

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Article Info	ABSTRACT
	Disasters can happen due to nature and human being which cause damages, loss, and deteriorating health as well as health care. Psychosocial and mental health problems arise whilst and post disaster since disaster will lead to trauma for those who undergo it. Depression has comorbidity with dementia which decreases the quality of life of the elderly, thus it needs an effective and sustainable treatment with the goal to recovercoping mechanism toward physical and psycho-social problem, prevent physical and psycho-socialdisability, and optimize psycho-social function. The research aimed to analyze the effectiveness of Elderly Management Effort activities towards geriatric depression scale of permanent shelter residents in post Eruption of Merapi. This research was quasi-experimental research usingpretest postest design. The subject of this research was 40 people which met the inclusive criteria: elderly, living in shelter, having non-terminal illnesses, and willing to join the whole research. The exclusive criteria were having a medical record with severepsychological problem and DO used for those who did not join all session completely. The samples were taken using consecutive sampling method. The instruments used in this research were the Geriatric Depression Scale and the Elderly Management Effort. The data were analyzed through t test and chi square. Decreasing of score was found for the Geriatric Depression Scale from 5.2 to 2.1 and back to the score 4.3 at the last intervention in the 10th month. The Elderly Management Effortthrough the activities inPosyandu including Dance Movement Therapy dan Reminiscence Therapy was proven effective to decrease the Geriatric Depression Scalein post disaster. **

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1. INTRODUCTION

Disasters can happen due to nature and human being which cause damages, loss, and deteriorating health as well as health care [1], [2]. Many damages within health care such as: wounded people, food and clean water crisis, bad sanitation, as well as inadequate and unreachable health services for victims [3]. Psychosocial and mental health issues arise whilst and post disaster since disaster will lead to trauma for those who undergo it [4]. It happens because psychological pain emerges along with physical wound when seeing other people suffered or dead, or another environmental destruction which tends to make people who undergo it to be emotionally sad and desperate [1].

Mental health issues often caused by trauma are post-traumatic stress, depression, and anxiety especially for vulnerable groups, namely the elderly. The prevalence of post-disaster depression varies

depending on the sense of loss and exposure experienced. In the earthquakes in Armenia, 52% of 1785 samples were diagnosed to suffer from depression. Depression risk factors in survivors are the experienced losses (loss of family members, possessions, jobs, shelter, etc.), the type of disaster, the location from the center of the disaster, female gender and being alone at the time the disaster happened [5]. Based on the research findings and theories, it is estimated that nine months after the disaster, the rates of depression among survivors increased due to the addition of a secondary stressor on the survivors such as aid, the certainty of residence, occupation, and so on [6].

On 25 October 2010 to 30 November 2010, Mount Merapi erupted many times with the largest eruption occurred on October 26, which lasted 24 hours and November 5 is the largest eruption since the 1870s. The above mentioned incident caused 353 people died directly as a result of hot clouds. After undergoing treatment in hospitals, 350,000 people were displaced and around 567 hectares of forests and settlements in Sleman were damaged. It is estimated that material losses reached33 billionrupiahs [7].

As a result of these conditions, survivors including the elderly should undergo refugee displacement for more than 4 times, until finally they occupied shelters. Until recently, they have been living in temporary shelters for more than 1 year and are not allowed to return to his homeland because it is in a dangerous territory. Based on an early study in one of the shelters that is Pelosokerep, it was found out that 51.6% of the elderly underwent depression. They come from two villages located closest to the peak of Merapi, so they suffered the most severe impact compared to other villages. Today almost all the elderly (90%) did not have a job. Before the eruption of Merapi, all of the elderly were cattle farmers, who every day looked for grass, took care of the cows and milked them and earned income from such work. Currently, they have to leave their property, lose their family, property and employment/income and almost have no activities. Moreover, the Posyandu activities which used to be held regularly isnever performed again after the eruption of Merapi. Most of them concerned about their physical health which began to get physical complaints.

Depression has comorbidity with dementia as well as lowering the quality of life of the elderly, so the effective and sustainableefforts in order to improve the coping mechanisms of the physical and psychosocial problems, to prevent/inhibit physical and psychosocial disabilities, and to optimize the psychosocial function are required [8]. Therefore, it requires the Elderly ManagementEffort held regularly with various types of activities, such as gymnastics, health education, relaxation, music activities, skills, spiritual guidance so that patients can accept the situation, and prepare themselves for all possibilities in the future [9]. Based on this background, the researcher wants to provide intervention on the Elderly Management Effort activities in shelters for the survivors of post Eruption of Merapi.

2.   RESEARCH METHOD

This study was a quasi-experimental pretest-posttest design. The subjects study were the elderly in *Posyandu*Petung and Pagerjurang village, Cangkringan, Sleman, Yogyakarta. The research was conducted from February 2013 to February 2014.The number of study subjects was 40 elderly people with inclusion criteria of elderly, living in a shelter, having non-terminal illnesses, willing to participate in the study until completion. The subjects with severe mental issues and did not complete the full treatment sessions were excluded from the study sample. Sampling was done by consecutive sampling.

Materials and tools used in this study were sphygmomanometer, weight scales, height gauges, stethoscope, CD, laptop, LCD, sound system, questionnaires, handbooks and activity log.

The dependent variable in this study was geriatric depression scores, while the independent variable was the activities of the Elderly Management Effort. Elderly depression was a state of sadness, loss of interest and joy and decrease of energy towards conditions of tiredness and loss of life expectancy experienced by the elderly in shelters in post Eruption of Merapi. In this study, the depression was measured by the Geriatric Depression Scale (GDS). ElderlyManagement Effort was a routine activity carried out for the health of the elderly including elderly gymnastics, health education, relaxation, music activities, skills, spiritual guidance so that patients could accept the situation, and preparedthemselves for the possibilities that would happen in the future [9]. In this case, these were reactivating activities in Posyanduby equipping it with activities for mental health.

Geriatric Depression Scale (GDS) was used to measure the level of elderly depression and has been standardized by the Ministry of Health of the Republic of Indonesia with a sensitivity of 84% and a specificity of 95% [10]. The data were analyzed using Chi Square and T test.

3. RESULTS AND ANALYSIS

3.1. Results

The location of this research was in permanent shelters inPetung, Kaliadem, Pagerjurang and Jambu hamlets situated in Kepuharjo Village, Cangkringan, Sleman, Yogyakarta Special Province. Kepuharjo Village, before the eruption of Merapi in 2010, was located approximately 5 km from the peak but now the distance becomes 11 km from the volcano summit as the location of the village was moved by the Government. The houses and properties of its residents lost due to heat clouds and eruptions that occurred at the old location. Now, permanent shelters for the residents were built up in a new location. Number of family and the total of the residence each hamlet in Kepuharjo Village, Cangkringan, Sleman, Yogyakarta Special Province can be seen in Table 1.

Table 1. Kepuharjo Village consists of 8 hamlets

No	Name of the Hamlet	Number of RT/RW (Neighborhood Ward)	Number of Family	Total of the Residence
1	Kaliadem	4 RT / 2 RW	129	398
2	Jambu	4 RT / 2 RW	102	307
3	Petung	4 RT / 2 RW	102	310
4	Kopeng	5 RT / 2 RW	123	385
5	Batur	4 RT / 2 RW	129	375
6	Pagerjurang	4 RT / 2 RW	127	395
7	Kepuh	4 RT / 2 RW	100	380
8	Manggong	4 RT / 2 RW	90	267
Total			902	2817

Secondary Data Source Taken from the Archieve of KepuharjoVillage 2013

Table 1 showed the number of Kepuharjo's residents is 2817 people with Kaliadem Hamlet as the largest one (298 people) and the fewest is Manggong Hamlet (267 people)

The society worked in agriculture, animal husbandry, entrepreneurs and civil servants. Most of themwere farmers and stockbreederwhen they were still residing in the old location of the residence (prior to the eruption of Merapi). However after the eruption, agricultural land which could not be plantedbecame one of the factors that could degrade the quality of life of the elderly.

Kepuharjo area is one of the villages in the district of Cangkringan, located on the slopes of Mount Merapi, which was a disaster-prone areas. The people including the elderly group were prepared to anticipate the disaster situation. Kepuharjo village had 8 *Posyandu* in 8 hamlets there. *Posyandu* activities were carried out regularly once a month implemented independently under the supervision of a health center. When the eruption occured, *Posyandu* for the elderly had stopped its activities for several months, but now *Posyandu* activities were carried out regularly in all hamlets in the new permanent shelters.

The characteristics of the respondents in this study to determine the general overview of research respondents were age, gender, education, occupation, marital status, status of living, and the status of ilnesses. Characteristics of respondents in this study can be seen in Table 2.

Table 2. Frequency Distribution of the Characteristics of Respondents in Petung and Pagerjurang Hamlets, KepuharjoVillage, Cangkringan, Sleman

Characteristic	N	%
1. Age		
60-74 years old	28	70
75-90 years old	12	30
2. Gender		
Male	0	0
Female	40	100.0
3. Education		
Did not attend school	19	47.5
Primary School	19	47.5
Secondary School	0	0
High School	2	5
4. Occupation		
Unemployed	10	25
Farmer/Stockbreeder	30	75
5. Marital Status		
Married	19	47.5
Divorce due to death	20	50
Unmarried	1	2.5
6. Living along with		
Family	31	77.5
Alone	9	22.5
7. Status of Illnesses		
No	24	60
Physical Illness	16	40

Analyzed primary data source

Table 2 showed all respondents in the study were geriatric woman (100%) with the biggest group is 60-74 years old (70%). About 95% of respondents had low educational background, did not attend school and primary school. The biggest group Respondents occupation was farmer/stockbreeder (75%). And 50% of respondents were divorce due to death, 77.5% of them were living along with family. And 40% of respondents had physical illness.

All of the respondents of this study were women. It is because the number of elderly women were more and they joined*Posyandu* activities on a regular basis so they could follow the given intervention. Elderly men worked outside the home so they rarely joined the activities carried out in *Posyandu* routinely.

In epidemiology, women had a higher prevalence of depression than men with a ratio between women and men 2:1 in the elderly. It is caused due to psychological factors and biological factors experienced by elderly women. Biological factor which occurs in women is hormonal changes which become one of the risk factors that makes elderly women more vulnerable to depression [11].

Based on age, 28 elderly (70%) were in 60-74 years of age group. According to the World Health Organization (WHO), the category of elderly is between 60-74 years. 30% of the respondents belonged to old group (75 – 90 years old) and none of the respondents (0%) belonged to very old age group (above 90 years old).

Elderly is a risk factor for numerous health problems including mental health issues. The elderly is susceptible to changes in physiological systems, susceptibility to various diseases, and psychological vulnerabilities including feeling useless, feeling sad easily, insomnia, stress, depression, anxiety, dementia, and delirium [12].

For the characteristics of respondents bythe education level in both groups, 19 elderly people (47.5%) did not attend school, 19 people (47.5%) went to primary school and only 2 elderly (5%) held a high school education. This showed that the majority of respondents had a low education level. Low education becomes one of the risk factors for poor quality of life and vulnerability of depression in the elderly. Based on the survey of the quality of life in the United States, it showed that the lower the level of education is, the worse quality of life is. The lower quality of life leads to vulnerability of depression [13].

For the characteristics of respondents by occupation, 30 elderly people (75%) were farmers/stockbreeder. The majority of residents in the study area worked as a farmer or searched grass in the forest, and 10 elderly (25%) were unemployed. According to Maryam, et al, the elderly will undergo social changes such as a change of roles, family, economy, politics, law, security, recreation, and education. Retirement undergone by the elderly also makes them feel lonely, empty and not appreciated in his life because they have fewer opportunities than when they were younger. It can make the elderly susceptible to depression [14].

Ocurrence of natural disasters experienced by the elderly might also bring a major impact for them, because access to the forests where they usually looked for grass, wood, and earned a living became very far. This resulted job losses for the elderly. Losing a job is a situation that can lower self-esteem which can lead to stress and psychosocial factors that can cause depression [15].

The frequency of characteristics of respondents based on their marital status showed 20 elderly people (50.0%) already did not have a spouse because the spouse died. There was only one respondent (2.5%) who is unmarried. Marital status is one of the risk factors of incidence of depression in the elderly. According to Freud and Karl Abraham, depression in the elderly may occur due to the loss of a loved object (person or abstract objects such as social status). In addition, the loss of a life partner is the psychosocial factor that can aggravate depression on elderly [15].

For the characteristics of respondents based on status of living, 31 elderly people (77.5%) stayed with their family. Like the life pattern they had in their old housing, some people lived close to their children. When their children got married, usually parents built them a house near their parents' house, because mostly people had large land and their children worked in a place not far from where they lived. Therefore, a large family stayed close to each other around their parents. In the new shelter, this pattern also remained to be implemented so the family lived close to each other even though alone, and some even ended up choosing to live with their children. These conditions made the elderly feel they had enough support from family in the neighborhood. Social support from family and the environment are associated with depression experienced by a person. Lack of social support will make the elderly unable to maintain a sense of self-esteem and can lead to depression on the elderly [15].

For the characteristics of respondents based on disease status, 24 elderly people (60%) were healthy, while 16 elderly people (40%) had illnesses. Status of physical illness greatly affects the occurrence of depression in a person, as someone who has a physical illness can increase the susceptibility to depression in the elderly especially when there is a deterioration of physical function [8],[14].

Diseases that often cause depression in a person are diabetes mellitus, hypertension, heart failure, decreased liver and kidney function, Parkinson's disease, Alzheimer's disease, stroke, arthritis, cerebrovascular disease, viral infections, endocrinopathies, lymphoma malignancy and karsinoma [15].

Geriatric Depression Score in the *Posyandu* of Pagerjurang and Petung Hamlets was measured three times: 1) In April 2013, before the intervention of Elderly Management Efforts by providing Dance/Movement Therapy and reminiscence therapy as the pretest score, 2) in May 2013after the intervention as the posttest score, 3) in February 2013 as the evaluation score taken 10 months after the implementation of the Elderly Management Effort.

The instrument used to measure the level of depression in the elderly was the Geriatric Depression Scale (GDS) with interpretation GDS score as 0-4 (normal), 5-8 (mild depression), 9-11 (moderate depression), and 12-15 (severe depression). Depression scores as the value of the pre-test respondents had a mean of 5.2 that is not in the category of mild depression. After the intervention, the mean score decreased to 2.1. which means that the level of depression is not depressed or normal. Depression score assessed after 10 months of intervention activities was 4.3 belonging to the normal category, but showed an increase and was considered reaching the limit of mild depression category. Depression level classification based on respondents' GDS scores is seen in Table 3.

Table 3. Respondents' Depression Score in Pretest and Posttest

Depression score	Normal	Mild Depression	Moderate Depression
Pre Test	12 ((30 %)	23 (58 %)	5 (12 %)
Post Test	37 (92 %)	4 (7 %)	0 (0 %)
After 10 months	18 (45 %)	21 (53 %)	1 (2 %)

Table 3 showed that before intervention most of respondents were in mild depression level (58%) and after intervension, the Depression Score was decreased and 92% respondents became normal level. But after 10 months of intervention, most of respondents' depression score (53%) returned to mild depression as before.

3.2. Analysis

Mild depression level experienced by the elderly depicted on the pre test could be caused by many factors that influence depression. The elderly in Petung and Pagerjurangwere the survivors of Merapi's eruption happened in 2010 so that it became the additional risk factors for them as the susceptible group in the disaster area. Eruption of Merapi in 2010, eventhough it has been for several years, was a remarkable disaster which could cause mental disorders for someone who experienced it. The mental disorder could

happen because the elderly were unable to pass reconstruction phase that they experienced which then resulted in mental disorders, one of themwas depression. The increased of depression on post disaster period on the survivors, as reported on a research, means that odds risk is 1,44 compared to control [16].

Another factor that might cause depression on elderly was a great change experienced by them. The changes, for instance, were their homes that used to be near the peak of the mountain as their livings were moved to permanent residence *HunianTetap (HUNTAP)* which are in the safer zone of Mount Eruption of Merapi. Hence, the elderly had to leave the place which became their homes since they were born. They needed to adapt in the new living place. The other factor that caused depression was the loss of their beloved possessions, eitherpeople or things. Losing someone that they love, for instance their husband/wife or other family and losing their homes and all of his farm animals can cause depression on them [8],[17]. Those factors were experienced by the respondents; they lost their property, farm animals, family, friends and relatives because of the eruption of Merapi.

Physical disease experienced by the elderly could also cause the depression since many of them had diseases that irritate their activities so that they became more passive and depressed [8],[17]. Respondents' characteristics based on disease status among others were high blood pressure, osteoarthritis and rheumatoid arthritis. It is mentioned that the disease that could cause depression on elderly were cardiovascular, high blood pressure, stroke, chronic disease experienced by elderly and carcinoma [18].

The depression level when pre-test was conducted was in mild and normal, only a few of them were in the medium and none of them was in severe level. This was because the elderly in Petung village and Pager Jurang village had begun their activities and work despite the fact that the residents built by the government were away from their previous residents. They already had houses from the government because of the eruption, in August 2012 they have lived in the permanent residences and they lived with their families in more comfortable places and which are close to their neighbors so that social interaction support was invented among them. Therefore, the elderly felt better compared to when they were in temporary shelters, before they were moved to permanent residents.

*Posyandu*for the elderly was also conducted regularly by the elderly cadres in Kepuharjo hamlet and the employee of Cangkringan local government clinic (*Puskesmas)*. They received not only free medication and routine blood pressure check up but they werealso asked to play and trained for brain gym so that they had an activity and were able to interact each other in which this activity was conducted once a month. This activity would give social support for the elderly as described by Suyanto (2011) that social support can improve coping or modify the psychosocial stressor influence and the effects, so that the elderly depression level might not as high as before they got activities from the cadres [16].

The majority of the respondents experienced mild and normal depression levels, but there were some elderly who experienced medium depression level. There were some factors that trigger the depression experienced by the elderly such as the age or degenerative, that can be seen from characteristics description in which all respondents were aged >60 and correlated with the changes of physical function, social and psychological that cause susceptibility to depression in elderly [14]. The elderly activity management in *Posyandu* including physical check up, Dance/Movement Therapy using Javanese children's play song and Reminiscence were able to decrease depression scale which resulted in the reduced of depression after the elderly management effort.

Dance/ movement therapy is an art therapy which is suitable to overcome the depression problems [19]. It is explained in a research conducted by Pinnigera, *et.al.* (2012) that dancing has anti depression effect because it can decrease the level of depression significantly on intervention group compared to control group. Dance/Movement Therapy is a recreational therapy that is fun and it emerges positive situation for someone who experienced depression.

The other factors that can cause the decreasingnumber of elderly who experienced depression was the willingness of the elderly in treatment group to follow intervention, family support, and the elderly cadres' support. There was no intervention given on the control group, they just waited after pre-test was conducted so that there was only a small number of elderly who experienced the decrease of depression. It might be because there was no therapy or intervention on the respondent group. Dance/Movement Therapy is a comprehensive physical activity because it includes music, exercise, sensory stimulus in one unit which is very effective in reducing psychological disruption [20]. Dance/Movement Therapy is one of the physical activities that includes interesting and fun exercises, besides that Dance/Movement Therapy is one of the aerobic exercises that can be used for physical and psychological therapy because it has effects on balance, mood, social and physical function.

It is described that Dance/Movement Therapy is physical recreational activity that can decrease the depression experienced. This recreational activity can decrease disability and psychological distress. In Pinnigerra, *et.al.*a research conducted in 2012 showed that there was a significant decrease of depression on the respondents who joined Argentine tango dance compared to control group [20].

As explained previously, Dance/Movement Therapy is one of alternative exercises for someone who undergoes it [21]. There are many researches that explain the benefits of exercising either physically or psychologically, as well as Dance/Movement Therapy that is an alternative exercise useful to overcome the depression on elderly. It is known that one of the depression etiologies is related to the decrease of neurotransmitter neropinefrin and serotonin activity that send messages to limbic system, thalamus and cortex serebri [22]. It is proven that exercise or physical activities are able to induce the increased release of calcium, serotonin, endorphin and to decrease cortisol stress hormone level which happens when someone experienced depression [23].

A research conducted by Jeong and Hang (2005) in South Korea found that Dance/Movement Therapy could decrease the level of depression among teenage girls who experienced mild depression and the level of serotonin was increased which is believed that it is able to decrease the symptoms of depression such as fatigue, stress and insomnia [24]. This research also showed the significant level of decreasing after dance/movement intervention was conducted.

One of important elements in Dance/Movement Therapy is music [25]. Music has been used for a long time for therapy either physics, psychology, cognitive or social for all ages. The music used is determined by individual values, philosophy espoused, education, clinical order and cultural background [26]. The research conducted by Eyigor (2007) also explained that folkloric dance or traditional dance ensemble with songs is suitable with local culture because it is fun and increases positive emotion [27]. Hence, the music chosen for this research was Javanese children's play song which is the traditional song of the local society so that they had already familiar with and they had the spirit to carry out the intervention. The music element in Dance/Movement Therapy will encourage someone to express and release tension either the muscles or psychological.

Another element in Dance/Movement Therapy is the movement itself which becomes a therapy language in its implementation [28]. In the movement's part of Dance/Movement Therapy using Javanese children's play song, the researcher served as instructor who gave the examplesmovements for the elderly in order to ask them to dance more interactively and enthusiastically. In its implementation, the movements in Dance/Movement Therapywere not merely individual movements but also pairs and groups so that it created familiar and fun among the instructors and the participants. It is expected that the fun situation would make the elderly start to contact, support and build interpersonal relationships among themselves so that they can share stories and release problems that they feel which resulting in the decrease symptoms experienced by the elderly [25],[29].

The movements in the intervention not merely worked as a place to increase social interaction but also as a means of communication and self expression. When they dance, it is expected that they are able to express their feelings and increase the communication among themselves and others. This element is important to increase self confidence of someone who experience depression [25],[30].

As explained previously that Dance/Movement Therapy is one of the art therapy used to overcome depression because it is an activity and a kind of games that can bring joy and laugh for someone who does it. [19] In a research conducted by Kusniati (2012), it is explained that laugh and joy were able to overcome and decrease depression because they created positive reaction that can decrease stress hormone like cortison [23],[31].

In its implementation, Dance/Movement Therapy using Javanese children's play song needed the respondents' obedience. The obedience was not easy to gain so that it needed cooperation with the elderly cadres to remind the schedule; hence they did the activity in routines. Entertaining music and movements also influenced the obedience of the participants. Therefore, in every implementation of the activity, the researcher asked the elderly to sing together using Javanese children's play song that was entertaining and fun so that it created an interaction among the elderly and the instructors. The joyful situation would make respondents feel comfortable and positive situation in them.

Elderly *Posyandu* which was held in routine, social support from the society, elderly cadre, and good families in Petung village and Pagerjuang contributed to the decrease of geriatric scale depression.

It is known that depression happened because interaction of some factors such as biological, psychological, and social. When those factors are managed well, then there is a decrease of depression experienced by the elderly. Social factor that influences the decrease of depression is family support. According to a research conducted by Agus (2006) a good family supports for someone who experiences depression can decrease his/her depression [26].

Social supports from the society and elderly *Posyandu* cadres also influenced the depression. Social support given to someone who experiences depression can decrease the level of depression [32]. In Kepuharjo village, in Petung and Pagerjurang hamlets had elderly cadres who gave*Posyandu*examination such as physical check up for blood pressure, weight and entertainment conducted by them in routines. Those activities made the elderly feel being noticed, and it could create interpersonal relationship either among the

elderly or between the elderly and the cadres. Therefore, those factors might reduce the elderly score depression in control group.

The mechanisms of Dance/Movement Therapy have been discussed in previous paragraphs, such as it can be the form of recreational physical exercise or fun exercise for the people with depression. This physical activity can induce neurotransmitter neurons to increase serotonin, endorphin and decrease the cortisol stress hormone [23]. Dance/Movement Therapy is a means to communicate and self expression, to increase social interaction, the games are able to create laugh and joy, and is able to decrease the tension faced by a person who experiences depression so that it will be able to decrease the depression scale since it creates positive mood [25],[30].

4. CONCLUSION

Based on the result of the study and discussion, it can be concluded as follows: The elderly management effort with *Posyandu*activitiesas well as Dance/Movement Therapy and Reminiscence therapy was effective to decrease depression scale on the elderly after the disaster.

Based on the study, the researcher would like to give suggestions for health institutions and health workers that the elderly management effort with *Posyandu*activities have to be integrated for physical and mental health so that it is better if the activities include physical examination, mental health intervention by giving Dance/Movement Therapy using Javanese children's play song and Reminiscence therapy to prevent the elderly depression especially for the groups who have high risks of mental disorder. For elderly cadres the researcher would like to give suggestion that Dance/Movement Therapy can be used with Javanese children's play song and Reminiscence therapy as routine activities for the elderly in *Posyandu* as a fun intervention for them and these activities can be established by giving training for other cadres in other areas so that trained cadres are developed. The suggestion for elderly is that the elderly can participate actively and continuously in elderly management effort activities in *Posyandu* with its mental health activities such as Dance/Movement Therapy using Javanese children's play song and Reminiscence. Therefore, they get interesting activities and they interact each other either with elderly cadres or among themselves so that they feel happy and depression which is susceptible can be avoided.For the next researchers, the researchersexpected that the next researchers are able to develop a study related to elderly health management using simpler methods, effective and efficient for the society as a routine activity that can be conducted in *Posyandu*for the elderly.

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