

CORRELATION BETWEEN LEVEL OF SOCIAL ACTIVITY AND DEPRESSION IN ELDERLY DURING THE COVID-19 PANDEMIC

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ABSTRACT

Introduction: With the COVID-19 pandemic that's currently happening, the Indonesian government made a policy called Pembatasan Sosial Berskala Besar (PSBB) to prevent the transmission of the COVID-19 virus. As a result of this new policy there was a change in the lives of Indonesians, like restrictions and a decrease in their social activities. The elderly are individuals who experiences a decline in various body function, which causes decreased social activities, and due to the reduction of their social activities, they're potentially to experience depression due to feeling isolated and lonely. With this PSBB policy, the elderly whose social activities have already decreased, will potentially experience a more and massive reduction in their activities, and because of that the potential for depression will likely to increase.

Objective: To determine the correlation between social activity level with depression in elderly during the COVID-19 pandemic.

Method: The design of this research is observational analysis using a cross sectional method. The data were collected using the Australian Community Participation Questionnaire (ACPQ) and Geriatric Depression Scale (GDS). Statistical analysis test used in this research was Spearman correlation test.

Results: Social activities of the elderly in the moderate category were 47.2% and elderly who are not depressed were 81,5%. The results from the Spearman test were found to have a significant correlation between the two variables, p value = < 0.05. The correlation level from the test was -0.335 which indicates a low correlation level.

Conclusions: There is a significant correlation that has a negative value, so it can be concluded that if social activity level is high, then the incidence of depression is low or non-existent.

Keywords: *Elderly, Social Activity, Depression, COVID-19 pandemic, Pembatasan Sosial Berskala Besar (PSBB).*

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INTRODUCTION

Elderly are individuals who have reached the age of 60 years and over¹. Elderly will experience aging physically, psychologically, socially, and also economically, making them vulnerable to problems due to aging and decreased in daily activities².

WHO announced the COVID-19 pandemic on March 12th, 2020. On March 2nd 2020, the first case of COVID-19 was found in Indonesia³. Due to the discovery of the first case of COVID-19 in Indonesia, the government immediately issued a government regulation No.21 of 2020 (Peraturan Pemerintah No. 21 Tahun 2020) about Large-Scale Social Restrictions (PSBB) to deal with the situation as quickly as possible³. The government regulations are also supported by various policies, such as limiting outdoor activities, work and study from home, and religious activities (worship) from home⁴. As a result of this policy, the elderly who initially have a lower social activity level than people who are in their productive age, will have a potential to experience a decrease in their social activity level and will trigger an onset of depression.

Depression is a form of emotional disorder that shows feelings of unhappiness and lack of enthusiasm⁵. According to the 2018 Riskesdas data, the prevalence of depression will be higher with the increasing of age⁶. From these data, it can be concluded that the elderly are more susceptible to have depression than people who are in their productive age. The COVID-19 pandemic has caused changes in people's lifestyles, especially their social activities, where a decrease in social activities due to restrictions on outdoor activities can potentially increase the incidence of depression in elderly.

This study aims to determine the correlation between social activity level with depression in elderly during the COVID-19 pandemic.

METHOD

This research used observational analysis design with a cross sectional method. This research was conducted on July 15th 2021 when there was an increase in COVID-19 cases in Indonesia due to the emergence of the Delta variant, so the government implemented the Pemberlakuan Pembatasan Kegiatan Masyarakat (PPKM) policy. This PPKM policy resulted in the discontinuation of all community activities, implementation of night curfew, strict restrictions, and a prohibition to travel.

The population used in this research was the elderly from the Catholic Church of St. Yusuf Blitar, who met the inclusion criteria and did not meet the exclusion criteria. The Inclusion criteria are elderly at the age of 60 years and over, are members of the Catholic Church of St. Yusuf Blitar, the elderly and their families can communicate well, and are willing to be research samples. The Exclusion criteria are elderly who cannot participate in the research, elderly who experience immobilization / total bed rest, elderly with dementia or delirium, elderly who have previous mental disorders. The number of samples was calculated using the correlation sample formula, and obtained a minimum number of 53 samples, but in this study the researchers managed to get 70 samples.

The sampling technique used in this research was purposive sampling which is a non-probability sampling. Elderly who met the inclusion and did not meet the exclusion criteria will be asked to fill out the informed consent, the GDS (Geriatric Depression Scale) questionnaire as a screening for depression in the elderly for the past 2 weeks, and also the ACPQ (Australian Community Participation Questionnaire) questionnaire to measure their social activity level in the past 2 weeks. While filling out the questionnaire, they will be assisted by researchers directly through home visits to the elderly's house of the Catholic Church of St. Yusuf Blitar or by

teleconference with the help of the elderly's family member guided by researchers.

The data was being analysed using the SPSS (Statistical Product and Service Solution) software with Spearman correlation test.

RESULTS

Table 1. Distribution of Demographic Data

Variable	n(%)
Age	
60-64	18 (25,7%)
65-74	38 (54,3%)
>74	14 (20%)
Gender	
Male	30 (42,9%)
Female	40 (57,1%)
Marital Status	
Do not have a life partner	22 (31,4%)
Widow	16 (22,8%)
Widower	6 (8,6%)
Have a life partner	48 (68,6%)
Home Environment	
Live Alone	24 (34,3%)
With Family	46 (65,7%)
Employment	
Have a Job	16 (22,9%)
Do not have a job	54 (77,1%)
Drug Consumptions	
Polypharmacy	9 (12,9%)
Non-polypharmacy	61 (87,1%)

From the distribution of demographic data above, most of the samples are on the age of 65-74 years, as many as 38 samples (54,3%). The predominant gender is female, with a total of 40 samples (57,1%). A total of 48 samples (68,6%) still have a life partner, most of the elderly live with their families with 46 samples (65,7%). There are more elderly who don't have a job, as many as 54 samples (77,1%). Most of the elderly do not experience polypharmacy, which is 61 samples (87,1%).

Table 2. Average ACPQ Responds

ACPQ Short-form	Average Answers	Answer Code
Contact with immediate household	5,14	Quite often
Contact with extended family	3,4	Occasionally
Contact with friends	2,34	Rarely
Contact with neighbors	2,73	Rarely
Religious observance	1,02	Never, or almost never
Organized community activities	1,03	Never, or almost never
Active interest in current affairs	2,50	Rarely

From the ACPQ short-form, the highest score was found to be elderly that has contact with immediate household. Contact with immediate household in question, namely, if the elderly wakes up, do they immediately see their family member, and the average answers from the samples is 5,4 (quite often). Contact with extended family is 3,4 (occasionally), contact with friends (2,34) and neighbors (2,73) is rarely in the past 2 weeks because of the current situation. Taking parts in religious observance/activities (1,02) and organized community activities (1,03) is categorized never or almost never in the past 2 weeks due to church closing and restrictions on community gathering during the pandemic due to the PPKM policy.

Table 3. Tabulation of the Social Activity Level with Depression in Elderly

Variable		Depression			Correlation coefficient
		No Depression	Probable Depression	Depression	
Social Activity Level	Low	12 (21,1%)	3 (37,5%)	4 (80%)	$r = -0,355$ (p = 0,03)
	Moderate	27 (47,4%)	5 (62,5%)	1 (20%)	
	High	18 (31,5%)	0 (0%)	0 (0%)	
Total		57 (100%)	8 (100%)	5 (100%)	70

Based on the cross-tabulation table between the social activity level with depression in elderly, it was found that the social activity level that dominates is the moderate level with a total of 33 samples, and most samples do not have depression, as many as 57 samples.

DISCUSSION

The results from the bivariate analysis with Spearman correlation test showed a significant result with p value 0.003 ($p < 0.05$) and the correlation level was -0.355. This means that there is a significant correlation between the social activity level with depression in elderly during the COVID-19 pandemic, which shows that the higher the social activity level in elderly then the incidence of depression will be lower or even non-existent. This is concluded based on the result from the tabulation table where 5 samples who experienced depression are 4 at a low level of social activity, 1 sample is at moderate level of social activity, and in the high level of social activity, elderly who are depressed is non-existent.

This research is in line with other research that was conducted by Andreany Kusumowardhani who investigated the correlation between depression level in elderly with their social interactions in Sobokerto Village which showed a significant correlation with a moderate correlation level⁷. This research is also reciprocal with the journal "Social Participation and Perceived Depression among the Elderly Population in South Africa" where elderly who encountered barriers to participate in social activities have a 69% higher potential to experience depression⁸.

The weak correlation level in this research was obtained because of the low number of samples with depression, as many as 5 out of 70 samples. From the demographic data, it was found that 46 samples lived with their families. According to a research conducted by Gusti Ayu Trisna Parasari with the title "Dukungan Sosial Keluarga dengan Tingkat Depresi pada Lansia", it was found that family social support was an inhibiting factor for depression, because the greater the family support, the lower the incidence of depression in elderly⁹. The results on this research is also in line with Siti Paartini's book which states that family is the core of emotional needs in elderly². From the respondent's statement, as a result of the PPKM policy, families must carry out all activities from home including work (work from home) and study (online school), as a result the elderly will spend more time at home with their family compared to before the PSBB/PKMM policy. This statement is proved by the high number of samples with immediate contact with household in the ACPQ questionnaire which scored 5 (quite often) in the last 2 weeks.

In the researcher's interview with the respondents, the researchers also found that some respondents who did not have depression had a coping mechanism that were projected into feeling grateful and high religiosity, so that they don't fall into a state of depression. Religiosity is an awareness and sense of religious belief so that people can have a commitment to participate in religious activities (worship)¹⁰. According to Argyle, religiosity can help maintaining our psychological health in this difficult time¹¹.

The COVID-19 pandemic has been going on for more than 1 year, so the elderly are starting to adapt and accept these changes resulting in task-oriented adjustment¹². This is marked by the low interest of the elderly with the outside world, which is proved by the low score in the 7th point from the ACPQ questionnaire, with a score of 2 or rarely over the past 2

weeks. Some of the elderly has begun to find a way to get out of their fear, anxiety, and depression by filtering all the incoming information and diverting it into religious activities such as feeling grateful.

Based on the demographic data of the samples, there are a total of 48 samples that still have a life partner. In a journal written by Papalia, it was found that elderly who still have a life partner, from an emotional point of view, will be in better condition, because with a life partner they can support and help each other to face various problems in their old age. Better emotional condition will help reduce the prevalence of depression in elderly who have a life partner¹³.

Based on the demographic data, it was also found that 61 samples did not have polypharmacy. The elderly are said to have polypharmacy if they regularly take at least 5 types of medications¹⁴. According to a journal titled "Associations between Polypharmacy, Self-Rated Health, and Depression in African American Older Adults; Mediators and Moderators" it was found that the incidence of polypharmacy is associated with the incidence of depression in the elderly, this is also influenced by the multi-morbidity suffered by elderly, so that they have to take multiple medications every day¹⁵. In this research, it was dominated by the elderly who did not experience polypharmacy, so it can be concluded that it is one of the inhibiting factors for depression in elderly for this research.

The limitations in this research is that the researchers used a cross sectional method so it only described the depression and social activity level at the time of the data collection and it could not determine the depression and social activity level of the elderly at the beginning of the pandemic. This research also uses interviews and questionnaire, so it depends on the honesty of the respondents. In this research, researchers also did not put other inhibiting factors that can cause depression into account.

CONCLUSION

Based on the data analysis, in this research the correlation between the social activity level with depression in elderly during the COVID-19 pandemic, it was found that there is a significant correlation with a weak correlation level between the two variables.

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