



Original Research

Stress and Insomnia among Elderly Living in a Nursing Home: A Cross-sectional study

Raufuddin Raufuddin*^{ib}, Virki Widoyanti and Sri Wilujeng

STIKES ABI, Surabaya, East Java, Indonesia

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CORRESPONDING AUTHOR

Raufuddin raufuddin
kaylacomel16@gmail.com
STIKES ABI, Surabaya, East Java, Indonesia

ABSTRACT

Introduction: Globally, It was estimated that one in three adults experienced insomnia. In Indonesia, 10% or equal to 28 million of the population was reported this particular sleep problem. Physical illness, environment, drugs used, and stress were reported as the major cause of insomnia. This study aims to analyse the relationship between stress and the incidence of insomnia among elderly living in a nursing, Surabaya, Indonesia.

Method: This study applied cross-sectional approach with correlation descriptive design. Population in this study was older adults living in a nursing home. A total of 51 participant recruited through a random simple sampling was involved. The independent variable was stress and dependent was insomnia. A self-report questionnaire was used to collect data from the study participants. Data was statistically test by Contingency Coefficient.

Results: There is no relationship between stress and the incidence of insomnia in the elderly ($p=0.267$). Insomnia might relate to others factors that not explored in the study.

Conclusions: The current study highlights insomnia among elderly is not related to stress events. Even insomnia was a common, nurses need to identify other factors that can contribute to insomnia experienced by the elderly. Thus, further study examines insomnia among elderly is warranty.

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1. INTRODUCTION

Insomnia is something circumstances when somebody experience difficulty For Sleep or No can Sleep with restful, often awake moment Sleep, hard to get to sleep, and can't even reach quality Sleep Which normal. Impact light insomnia This can raises fatigue. Whereas the impact of severe insomnia on the elderly causes vulnerability to disease heart 6.9% in 10 year as well as risk caught cancer (Javaheri & Redline, 2017).

Based on the Diagnostic and Statistical Manual of Mental Disorders fourth edition (DSM-IV) insomnia is difficulty in start Sleep, maintain Sleep, or Sleep Which No refreshing during 1 month or more in

where circumstances difficult Sleep This must cause disturbance clinically significant. Insomnia in adults Which more old associated with dissatisfaction with quality or quantity Sleep And Also associated with difficulty sleeping, sustaining Sleep, or get up Morning (Kodir Kodir et al., 2020).

According to WHO (2019), not enough more 18% resident world experience disturbance difficult Sleep And increasing every year. Estimated 1 in 3 people have insomnia. value that high if compared to other diseases. Whereas curereasearch (Goddess, 2022) report that in 2017 30% of the population in world generally experience insomnia chronic. There is ¼ from report state that resident in America Union (US)

occasionally get Sleep Which bad And almost 10% experience chronic insomnia.

Whereas Prevalence insomnia or difficult Sleep in Indonesia about 10%. That means approximately 28 million out of a total of 238 million Indonesians suffer insomnia. Amount This recorded in data statistics, Lots amount sufferer insomnia Which Not yet detected (Hatmanti, nety Mawarda; Muzdalifah, 2019). Based on results survey in Griya Werdha Vase surabaya, obtained sufferer insomnia on elderly amount 20 person in Block A, and 15 person in Block B. So total amount sufferer insomnia is 35 person. Insomnia in the elderly is caused by illness physical (such as long-term pain, bladder or prostate, disease), environment, use drugs, And disease mentally like stressed. Stress can be said is a symptom of the disease present time closely related to progress and change Which demands adaptation somebody to these changes equally rapidly. Efforts, difficulties, obstacles, and failures in follow gallop progress And the changes raises various variety complaint (Elliya, Rahma; Furqoni, Prima Dian; Ariska, 2020).

Hammer and Organ (Frasser, 1985) said that stress as a state a person is not capable give response Which appropriate And reasonable to stimulation Which come from environment or maybe able but with detrimental consequences (Elliya, Rahma; Furqoni, Prima Dian; Ariska, 2020). Cornelli argued that What is meant by stress is a disturbance in body and mind caused by change and demands of life, which are influenced both by environment and individual appearance environment the (Rustiana, Eunike R.; Cahyati, 2012).

Insomnia in the elderly has several impacts including the impact on physical health, psychic, impact in life socialize And financial impact. Physical impacts include: obesity, heart problems and diabetes. Impact psychic among them like can causes the amygdala (the part of the brain responsible for process emotion) become more active And prefrontal cortex (part brain front) become not enough active. While the impact of life in society namely effect on treatment (Isransyah, 2016).

Stress can raises impact for elderly Good physique, social, intellectual, psychological, And spiritual. Impact physique like view blurry, sluggish movement, and tired easily. Social impact that is like decreased activity social in society. Impact intellectual like decrease ability For remember. Psychological impacts such as frequent anxiety and stress. Impact spiritual like more often remember death. Impact that happened the so that can lead to reduced quality of life elderly (Isransyah, 2016).

Handling insomnia can done in a manner pharmacological And non pharmacological. Handling in a manner pharmacological like drugs hypnotic sedative like Zolpidem, Tradozon, lorazepam, phenobarbital, diazepam, clonazepam, and Amitriptyline Which will own effect side like disturbance coordination think, disturbance function mental, amnesia anterograde, dependency, And

characteristic poison (Sutardi, 2021). Besides That, as for therapy complementary Which can used as handling to insomnia.

According to Kurniawan, et al (2020) therapy complementary Can done with method therapy herbs, therapy nutrition, progressive relaxation, meditation, laughter therapy, acupuncture, acupressure, aroma therapy, reflexology, massage, warm baths and hydrotherapy. Massage therapy is action manipulation muscles And tissues in the body by pressure, rubbing, And vibration or vibration with use touch hand, fingers hand, elbow, foot, and tools manuals or electric For repair condition health (Irawan, Ae Tedi; Mahmudin, 2021).

Based on the background above, the researcher want to researching connection stressed with incident insomnia in the elderly at Griya Werdha Jambangan Surabaya year 2023.

2. METHODS

This research is a type of quantitative research. Design study Which used is Descriptive Correlation with cross sectional approach. Population in this study were all the elderly in block A And B Griya Werdha Vase Surabaya. amount sample in study This 51 sample Which taken in a manner Simple Random Sampling. Variable Independent stress And Variable dependent Incident Insomnia. Data was taken using a questionnaire sheet stress to detect stress and ISI (Insomnia Severity Index) to detect the incidence of insomnia, then analyzed with Test coefficient Contingency . This research has been approved by Ethical Committee with Reference Number: 802/KEP-ET/VIII/2023.

3. RESULTS

Table 1 Distribution of characteristics by age and Gender in the Elderly at Griya Werdha Vase Surabaya on month May 2023

No	Demographics	Frequency	Percentage %
1	Age (Year)		
	Middle age (45-59)	1	2.0%
	Elderly (60-74)	32	63%
	Old (75-90)	17	33%
	Very old (>90)	1	2.0%
2	Type Sex		
	Man	37	72.5%
	Woman	14	27.5%

Based on the results of the frequency distribution of the table Table on about characteristics age, And type sex showing that Which aged 45-59 years, namely as many as 1 respondent (2.0%), aged 60-70 year as much 32 respondent (63%), aged 75-90 year as much 17 respondent (33%), aged >90 year as much 1 respondent (2.0%). Then Based on results distribution frequency from table on showing that

more from half, elderly manifold sex man as much 37 respondents (72%), and the rest are gender Woman as much 14 respondents (27.5%).

3.1 Characteristics Elderly Based on Stress

Table 2 Distribution frequency stressed on respondent in Griya Werdha Jambangan Surabaya in May 2023

No	Stress	Frequency	Percentage %
1	No Stress	34	67%
2	Stress	17	33%
	Amount	51	100%

Based on results distribution frequency from Table 2 about characteristics stressed showing that elderly Which No experience stressed that is as much 34 respondent (67%), And elderly Which experience stress that is as much 17 respondents (33%).

3.2 Characteristics Elderly Based on Insomnia

Table 3 Insomnia frequency distribution among respondents at Griya Werdha Jambangan Surabaya in May 2023

No	Insomnia	Frequency	Percentage %
1	No Insomnia	14	27%
2	Insomnia	37	73%
	Amount	51	100%

Based on results distribution frequency from table about characteristics Insomnia, showing That the elderly who do not experience insomnia viz as many as 14 respondents (27%), and experienced insomnia that is as much 37 respondents (73%).

3.3 Connection Stress with Incident Insomnia

Table 4. Cross tabulation of Stress and Insomnia among Elderly Living in a Nursing Home on month May 2023

No	Stress	Incident Insomnia				Total	
		No Insomnia		Insomnia		F	%
		F	%	F	%		
1	No Stress	11	79%	23	62%	34	100%
2	Stress	3	21%	14	38%	17	100%
	Amount	14	100%	37	100%	51	100%

Based on results distribution frequency from table regarding cross-tabulation it was found that the elderly Which No stress with Which No experience insomnia that is as much 11 respondent (79%), elderlywho do not experience stress with insomnia viz as many as 23 respondents (62%), stress with the elderly who did not experience insomnia as many as 3 respondent (21%), elderly Which experience stress with insomnia that is as much 14 respondent (38%).

Based on the results of statistical tests using *Test Correlation Contingency coefficient* obtained Approximate Significance value (*probability value*) $p=0.267$ with level meaning ($\alpha=0.05$) so that $p > \alpha$ which means H_0 is accepted, and H_1 is rejected which means there is no relationship between stress with incident insomnia on elderly in Griya Werdha Jambangan Surabaya. Based on test results statistics *Contingency coefficient* Also obtained number as big 0.154 It means level strength correlation or relationship is connection very weak.

4. DISCUSSION

4.1 Stress

Based on Table 2 about the characteristics of stress showing that respondent Which experience stress as many as 17 respondents (33%), and respondents who did not experience stress as many as 34 respondents (67%).

Many experts have conducted research on stress And put forward various understanding about stress. Among them by Atwater (1987) which states stress as an external stimulus cause somebody feel tired, like pressure at work, but at the same time stimulus the can cause two person Which different give response Which different also. Method somebody respond stimulus will determine level stressed Which experienced. stress is reaction physiological and psychological that occurs if a person feel the imbalance between the demands that faced with ability For overcome these demands (Goddess, 2022).

Hammer and Organ (Frasser, 1985) said that stress as a state a person is not capable give response Which appropriate and reasonable to stimulation Which come from environment or maybe able but with consequence harm (Isransyah, 2016). So also on person age carry on. Not seldom from they feel stress Because various problems and events that arise in life everyday. Wrong only one is problem place Where they stay. On part elderly choose For stay together his family. They feel worried or afraid if live alone and if bad things happen that will override himself, not There is nobody Which will help him (Raufuddin, 2021).

Korchin (in atkinson, 1990) say Stressful situations arise when there are external demands normal, so that threaten well-being or integrity somebody (Goddess, 2022). stress No only form conditions that suppress a person or physical state or psychic somebody, nor the reactions to that pressure, but rather the interrelationships between third this (Hatmanti, nety Mawarda; Muzdalifah, 2019).

The results of research on stress in the elderly in Griya Werdha Jambangan Surabaya, from 51 elderly Which experience stress that is as much 17 elderly (33%), And age Which dominant experience stress that is aged 60-74 years as many as 13 elderly (76%). This matter in line with study Which done by Hatmanti, et al (2019) about Level stress on carry on age in UPTD Griya Werdha Vase Surabaya. Research conducted by Hatmanti, et al the get results that part

big elderly in UPTD Griya Werdha Vase Surabaya is experiencing moderate stress, and the elderly are aged 60-74 years almost all experience it stress currently. So from results study This, shows that the elderly are vulnerable to stress and study This in line with study earlier.

Based on the results of research on stress on elderly, researcher assume that elderly of course prone to to stress However No all elderly experiencing stress. Elderly who are prone to stress is elderly Which have distraction physique And mentally, the elderly live far away family, No own family or Which own family However dumped so just. Matter This Which become factor elderly easy experience stress Because deprived of attention, and rarely or unable to match once interact with loved ones and loved, finally the elderly experience despair. Although There is a number of elderly Which capable manage stress However There is a number of also Which capable However fail manage or No can managing stress. That is the reason elderly easy attacked disease.

4.2 Insomnia

Based on Table 3 about characteristics Insomnia, showing That elderly Which experiencing insomnia as many as 37 respondents (73%), and the elderly who do not experience insomnia that is as much 14 respondent (27%).

In language, insomnia means not being able to sleep at bedtime. Insomnia comes from language Latin *insomnia*. Characteristic typical from insomnia is difficulty falling asleep and maintaining sleep and awake too early (Kodir Kodir et al., 2020) kindly definition according to *International Classification of sleep Disorders (ICSD)-3*, Insomnia is perception subjective response to difficulty initiating sleep, duration, consolidation or quality Sleep, although patient given chance Which Enough For sleep (Kurniawan, A.; Kasumayanti, E; Putri, 2020). Based on *Diagnostic and Statistical Manual of Mental Disorders fourth edition (DSM- IV)* insomnia is a difficulty in starting sleep, maintain sleep, or sleep that does not refreshing during 1 month or more in where circumstances difficult Sleep This must cause disturbance clinical ones significant .

Insomnia caused by various factor Good factor internal (disturbance physique or disturbance psychological) nor factor external (factor environment Which No comfortable). A number of factor risk Which suspected involved on insomnia is type sex Woman, elderly, exists comorbid condition medical And disturbance psychiatry, a number of therapy, and lifestyle factors such as coffee consumption, smoke, And seldom sport.

The results of research on the incidence of insomnia in elderly in Griya Werdha Vase Surabaya, from 51 elderly Which experience insomnia as much 37 respondent (73%). Results research This showing that the elderly are prone to insomnia. This matter in line with study Which done by Pearl Arini Elliya, et al

(2020) about The Relationship between Stress and Insomnia Elderly In UPTD Pslu Tresna Werdha Natar Lampung South. Study Which held by (Elliya, et al, 2020) at UPTD Pslu Tresna Werdha Natar, South Lampung get result of 54 elderly, who experience insomnia as many as 33 respondents (61.1%). So from the results of this study, shows that the elderly are prone to insomnia And study This in line with study earlier.

Based on results study in Griya Werdha Jar, researchers assume that the elderly are very old prone to to insomnia. Lots factor Which influence happening insomnia on elderly, However based on results study in Griya Werdha Vase, researcher find that factor The most dominant cause is itching itching on the skin, waking up at night because often thirst and frequent urination, and indoor temperature elderly sleep feels hot at night. Factor- it is these causal factors that make the elderly in Griya Werdha Vase Surabaya experience Insomnia.

4.3 Connection Stress with Incident Insomnia

Based on Table 4 about tabulation cross it was found that the elderly who do not stress with who does not experience insomnia as many as 11 respondents (79%), elderly who do not experience stress with insomnia that is as much 23 respondent (62%), stress with the elderly who do not experience insomnia as many as 3 respondents (21%), elderly Which experience stress with insomnia that is as much 14 respondent (38%).

Based on Table 4 regarding the results of statistical tests using the Contingency Coefficient Correlation Test value is obtained Approximate Significance (value probability) $p = 0.267$ with a significance level ($\alpha = 0.05$) so that $p.s > \alpha$ Which own meaning H_0 accepted, And H_1 rejected Which means No There is connection between stress with incident insomnia in the elderly at Griya Werdha Jambangan Surabaya. Based on output data on Table 4 Also obtained the Contingency Coefficient figure of 0.154 means level strength correlation/relationship is very weak relationship. These results are inconsistent with study Which done by Pearl Arini

Elliya, et al (2020) about Connection stress With the Incidence of Insomnia in the Elderly at the UPTD Pslu Tresna Werdha Natar South Lampung. Results study This showing that No There is The Relationship between Stress and Insomnia Elderly in Griya Werdha Vase Surabaya .

On results study about stress And Incident Insomnia on elderly in Griya Werdha Vase Surabaya, researcher find fact other about the causes of insomnia. Researchers found that besides stressed There is a number of elderly Which sigh difficult Sleep consequence temperature in room not enough cool And There is a number of elderly Also say that No can maintain sleep due to frequent awakening to defecate small and there are some elderly who also experience it skin itching disease. This is also in line with study Which done by Pearl Arini Elliya, et al (2020) that

reason insomnia on elderly Which There is in House tresna Wherda South Lampung due to conditions physical discomfort Older people like pain caused by disease suffering from gout or rheumatism actually felt at night or elderly sufferers diabetes mellitus so that often urinate on Evening day.

Based on results study This, researcher assume that besides stress there are many things that are can cause insomnia. Although stress can cause insomnia However There is factors other Which Also own role in trigger happening insomnia. factors Which cause Insomnia on elderly in Griya Werdha Vase is disease itchy rash on skin, awake at night because of frequent thirst and frequent urination, and temperature in the elderly bedroom feels hot at night. Therefore, it is necessary critical thinking and accurate to analyze trigger factors other than stress to overcome insomnia in the elderly.

5. CONCLUSION

Distribution frequency Elderly Which experience stress that is as much 33%. Distribution frequency Elderly who experience insomnia that is as much 73%. There is no relationship between Stress and Events Insomnia in the elderly at Griya Werdha Jambangan Surabaya Year 2023 (p value = 0.267, value Contingency coefficient = 0.154).

6. REFERENCES

Charles M. morin, P. (2023). *Insomnia Severity Index*. www.myhealth.va.gov

Elliya, Rahma; Furqoni, Prima Dian; Ariska, M. A. (2020). Hubungan Stress dengan Kejadian Insomnia pada Lansia di UPTD PSLU Tresna Werdha Natar Lampung Selatan. *Manuju: Malahayati Nursing Journal*, 2(4), 649–658. <https://doi.org/http://dx.doi.org/10.33024/mnj.v2i4.2567>

Goddess, P. A. C. (2022). Description Level stress Elderly During the Corona Virus Pandemic Disease-19. *Journal Medic Usada*, 5(1), 65–72.

Hatmanti, nety Mawarda; Muzdalifah, L. (2019). Hubungan Tingkat Depresi dengan Kejadian Insomnia pada Lanjut Usia di Griya Werdha Jambangan Surabaya. *Journal Health of Science*, 12(1), 67–77. <https://doi.org/https://doi.org/10.54107/mekausada.v5i1>

Irawan, Ae Tedi; Mahmudin, M. (2021). Pengaruh pijat kaki dan air hangat terhadap insomnia pada lansia di UPTD Puskesmas Kadipaten Kabupaten Majalengka Tahun 2020. *Jurnal Kampus STIKe YPIB Majalengka*, 9(1), 55–67.

Isransyah, M. (2016). *Hubungan Stres Lansia dengan Insomnia pada Lansia di Dusun Purwosari Mlati Sleman Yogyakarta*. Universitas Aisyiyah

Yogyakarta.

Javaheri, S., & Redline, S. (2017). Insomnia and Risk of Cardiovascular Disease. *Chest*, 152(2), 435–444. <https://doi.org/10.1016/j.chest.2017.01.026>

Kodir Kodir, Margiyati Margiyati, Tria Friska Ningrum, & Dita Amalia. (2020). Pengaruh Kombinasi Terapi Relaksasi Progresif & Musik Keroncong Terhadap Insomnia Pada Lansia Di Posyandu Setya Manunggal Iii Kabupaten Semarang. *Jurnal Keperawatan Sisthana*, 5(2), 46–51. <https://doi.org/10.55606/sisthana.v5i2.67>

Kurniawan, A.; Kasumayanti, E; Putri, A. D. (2020). Pengaruh Senam Lansia terhadap Penurunan Skala Insomnia pada Lansia di Desa Batu Belah Wilayah Kerja Puskesmas Kampar Tahun 2020. *Jurnal Ners*, 4(2), 102–106. <https://doi.org/https://doi.org/10.31004/jn.v4i2.1120>

Raufuddin, R. (2021). The Difference of Depression Level Before and After Keroncong Music Therapy in the Elderly. *Fundamental and Management Nursing Journal*, 4(2), 46. <https://doi.org/10.20473/fmnj.v4i2.22372>

Rustiana, Eunike R.; Cahyati, W. H. (2012). Stress Kerja dengan Pemilihan Strategi Coping. *Jurnal Kesehatan Masyarakat*, 7(2), 149–155. <http://journal.unnes.ac.id/index.php/kemas>

Sutardi, M. A. G. (2021). Tata Laksana Insomnia. *Jurnal Medika Utama*, 02(01), 402–406. <http://jurnalmedikahutama.com>