



EFFECTIVENESS OF USE OF MUROTTAL AL-QUR'AN THERAPY AND LEMON AROMA THERAPY ON REDUCING DEPRESSION LEVELS IN THE ELDERLY AT THE PEBAYURAN HEALTH CENTER

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Abstract

Background: One of the efforts to reduce the birth rate can be done through the use of contraceptives. One contraceptive that can be used is DMPA (Depo -medroxyprogesterone Acetate) or depo provera or better known as 3-month injection contraception, the name for the use of 3-month contraception. months often cause side effects, one of the side effects is weight gain, irregular menstrual cycles, and decreased sex drive. **Objective :** of this research is to determine the relationship between weight gain, sexual desire and menstrual cycle with the duration of using injectable contraceptives for 3 months in PMB Bd. Ari Rokhriyati, S. Keb, Cakung East Jakarta in 2023. **Method:** This research uses descriptive quantitative methods. The population in this study were all 3-month injection contraceptive acceptors who visited PMB Bd. Ari Rokhriyati, S. Keb, Cakung, East Jakarta for the period September - November 2023 as many as 359 people. With a total sample of 76 mothers who use family planning, the sampling technique used purposive sampling. The dependent variable is 3 month KB users. The independent variables are weight gain, sex drive and menstrual cycle. Data collection uses observation sheets. Statistical tests use the chi square test. The results of this study show a relationship between the menstrual cycle and the duration of family planning use of 3 months in PMB Bd. Ari Rokhriyati S. Keb Cakung Jakarta with a p-value = 0.002 ($p < 0.05$). The duration of using family planning for 3 months has an effect on sexual arousal with a p-value = 0.008 ($p < 0.05$). Meanwhile, the duration of using family planning for 3 months does not have an effect on weight gain with a value of $p = 0.239$ ($p > 0.05$). **Conclusion:** Using contraception for 3 months affects the menstrual cycle, sexual desire and weight gain.

Keywords: 3 Month Birth Control Injection, Weight, Sexual Desire, Menstrual Cycle

Introduction

Mental disorders are changes in mental function that cause suffering or obstacles so that carrying out social roles and daily activities is disrupted (Fitriya et.al., 2022). Depression is an emotional disorder or mild mental disorder that occurs. The elderly period is the final stage of the human life cycle, a time when everyone hopes and has the desire to live life calmly, peacefully, and enjoy retirement with their beloved children and grandchildren with great love. dear (Widyastuti, 2019) . The conditions of life problems and changes experienced by the elderly, if they cannot be overcome, will increasingly cause stress for the elderly (Widyastuti, 2019) . If this condition drags on, it will cause new problems that will disrupt personal and environmental well-being and can result in mental disorders in the elderly.

Marked by prolonged sadness, hopelessness, feelings of guilt and meaninglessness (Fitriya et al., 2022). Depression in the elderly is characterized by depressive affect, pessimism, ideas of guilt and worthlessness, feelings of sadness or hopelessness, loneliness, low activity levels, physical fatigue, sleep disturbances, appetite disturbances, gloomy views of the future and concentration, impaired decision making, as well as other physical complaints (Widyastuti, 2019).

The prevalence of disease in the elderly has increased over time, this is due to vulnerability to disease and increasing disability as age increases. Increasing life expectancy will cause the number of elderly people to increase in Indonesia every year. Based on population projection data, it is estimated that in 2017 there will be 23.66 million elderly people in Indonesia (9.03%). It is predicted that the number of elderly people in 2020 (27.08 million), 2025 (33.69 million), 2030 (40.95 million) and 2035 (48.19 million) (Ministry of Health of the Republic of Indonesia, 2020).

According to the Ministry of Health of the Republic of Indonesia, the number of elderly people in 2025 is estimated to be 33.69 million, in 2035 it is estimated to reach 48.19 million, so it is estimated that there are 9.03% of elderly people living in Indonesia (pusdatin.kemkes.go.id). The projected number of elderly people in 2010-2035 in West Java in 2017 was 4.16 million people, while in 2015 the number of elderly people was 3.77 million people. In 2021, the number of elderly people in West Java is estimated to be 5.07 million people or 10.04 percent of the total population of West Java (Widyastuti, 2019) .

The total prevalence of depression in the population aged over 15 years in Indonesia reaches 6.1 % . Women are more susceptible to depression than men. The prevalence of depression in women is 7.4 % and men is 4.7%. People who do not work and fishermen are also the highest contributors to depression, namely 8.1 and 6.9% respectively (Fitriya, et.al., 2022). So far, the prevalence of depression in the elderly in the world is around 8-15 percent and the results of meta-analysis from reports from countries in the world show that the average prevalence of depression in the elderly is 13.5 percent with a ratio of women to men which is 14.1 to 8. 6. The prevalence of depression in elderly people undergoing treatment in hospitals and care homes is 30-45 percent

Depression is a form of mental disorder related to feelings (*mood*) or emotional disturbances which are characterized by continuous moodiness and sadness. This condition is characterized by a loss of enthusiasm for life so that it disrupts the sufferer's productivity but does not experience problems in assessing reality (Widyastuti, 2019) . Depression is also characterized by negative thoughts about oneself, the world and the future (Widyastuti, 2019).

Factors that cause depression in the elderly include biological, psychological factors, chronic stress, and drug use. Biological factors include genetics, structural changes in the brain, and physical weakness. Psychological factors that cause depression are personality type and social support. Depression in the elderly has impacts including shortening life expectancy by worsening physical decline in the elderly, reducing the quality of life of the elderly, draining the emotions and finances of the affected person and their family (Azari & Zururi, 2021).

Management to reduce depression can be done with two actions, namely pharmacological and non-pharmacological. Pharmacological management is the use of anti-depressants. Non-pharmacological treatment for depression is supportive psychotherapy, cognitive behavioral therapy, family therapy and relaxation therapy, interpersonal therapy, and counseling and social support. The current therapy that is starting to develop in the world is psychoreligious therapy, one example of this therapy is Al-Qur'an therapy. Medical science has revealed many benefits of Al-Qur'an methods for curative treatment. Apart from that, this has also been revealed in the holy book which states that the Qur'an was revealed as a healer (Ash Syifaa) and guidance (al-Huda) for believers. "And We sent down from the Qur'an something

that is healing and mercy for those who believe and the Qur'an does not add anything to the wrongdoers other than loss." (Al-Isra': 82) (Bahrir & Komariah, 2020) .

Apart from that, the use of aroma therapy can also theoretically be used as an alternative non-pharmacological treatment for depression sufferers. Lemon aroma therapy is useful for accelerating skin rejuvenation through essential oils which penetrate into the skin thereby increasing blood flow, preventing the emergence of various diseases because it is antibacterial, neutralizing tension and reducing stress, providing comfort (*relaxing*) through the aroma of essential oils that are inhaled (Judha & Syafitri, 2018a).

The results of research (Dewi et al., 2023) can be concluded that doing lemon aromatherapy regularly for 3 consecutive days can reduce blood pressure, the mean value of systolic and diastolic blood pressure before the intervention group was treated was 156.67 mmHg and 95 mmHg.

Based on a preliminary study conducted through short interviews at the Pebayuran Community Health Center by asking 10 (ten) people about murrotal Al-Qur'an therapy on the level of depression in the elderly. By asking 10 elderly people, murrotal Al-Qur'an therapy on the level of depression in the elderly, 6 people said that in general they often listened to murrotal Al-Qur'an when they were confused and anxious, while 4 elderly people said they did not listen to murrotal Al-Quran when they were confused and anxious.

After studying the problems described above, researchers are interested in conducting research on the effectiveness of using Al-Qur'an murrotal therapy and lemon aroma therapy on depression levels in the elderly at the Pebayuran Community Health Center in 2023. As well as efforts to reduce the level of depression in the elderly at the Pebayuran Community Health Center to determine the level of depression in the elderly.

Research Methods

Research design is the overall planning for answering research questions and anticipating several difficulties that may arise during the research process (Novita Lusiana et al., 2021) .

The research design used is *Quasi experimental* design, and the design used is Non-equivalent Control Group Design.

Research Result

1. Univariate Analysis

Respondent Characteristics

Table 5.1 Elderly Respondents

Usia Lansia	F	%
40 – 50 Tahun	2	13
60 – 69 Tahun	11	69
70 – 79 Tahun	2	13
> 80 tahun	1	5
Jumlah	16	100

Based on table 5.1, the results obtained from the 16 elderly respondents studied were the majority of elderly respondents aged 60 - 69 years as many as 11 respondents (69%), aged 45 - 50 years as many as 2 respondents (13%) the same as aged 70 - 79 years, and there was 1 respondents (5%) aged > 80 years.

Table 5.2 Frequency Distribution of Elderly Education

Pendidikan	F	%
< SLTP	4	25
> SLTA	2	13
Tidak Sekolah	10	62
Jumlah	16	100

Based on table 5.2, the results obtained from the 16 elderly respondents studied were the majority of elderly people who did not go to school as many as 10 respondents (62%), < junior high school as many as 4 respondents (25%), and > high school as many as 2 respondents (13%).

Table 5.3 Gender Frequency Distribution

Jenis Kelamin	F	%
Laki-Laki	7	44
Perempuan	9	56
Jumlah	16	100

Based on table 5.3, the results obtained from the 16 elderly respondents studied were the majority of elderly people who were female, 9 respondents (56%) and 7 respondents who were male.

Table 5.4 Frequency Distribution of Employment of the Elderly

Pekerjaan	F	%
Buruh	7	44
Pedagang	4	25
Wiraswasta	3	18
Pensiunan PNS	2	13
Jumlah	16	100

Based on table 5.4, the results obtained from the 16 elderly respondents studied were the majority of elderly who worked as laborers as many as 7 respondents (44%), worked as traders as many as 4 respondents (25%), as entrepreneurs as many as 3 respondents (18%), and as retired civil servants as many as 2 respondents (13%).

Table 5.5 Frequency Distribution of Residential Elderly

Tinggal	F	%
Pasangan	4	25
Sendiri	2	13
Anak	10	62
Jumlah	16	100

Based on table 5.5, the results obtained from the 16 elderly respondents studied were the majority of elderly people living with children, 10 respondents (62%), 4 respondents living with their partners (25%), and 2 respondents living alone (13%).

Table 5.6 Status Frequency Distribution Elderly Marriage

Pendidikan	F	%
Lengkap Suami Istri	7	44
Janda Atau Duda	9	56
Jumlah	16	100

Based on table 5.6, the results obtained from the 16 elderly respondents studied were the majority of elderly respondents who were widows or widowers, 9 respondents (56%), and those with complete husband and wife status were 7 respondents (44%).

Table 5.7 Ownership Frequency Distribution Home for the Elderly

Pendidikan	F	%
Rumah Sendiri	3	18
Kontrakan	2	13
Numpang	11	69
Jumlah	16	100

Based on table 5.7, the results obtained from the 16 elderly respondents studied were that the majority of elderly respondents had 11 respondents (69%) share their own houses, 3 respondents had their own houses (18%) and 2 respondents had rented houses (13%).

Table 5. 8 Respondents' Vital Signs

Tanda-Tanda Vital	Sebelum Intervensi				Setelah Intervensi			
	Mini mum	Maksi mum	Rata-Rata	Standar Deviasi	Mini mum	Maksi mum	Rata-Rata	Standar Deviasi
Sistol	120	195	151,27	22,024	120	179	145,47	17,146
Diastol	80	128	92,13	12,894	73	115	89,20	9,712
Nadi	70	92	82,40	5,717	71	86	79,00	5,071
Respirasi	13	25	21,60	3,661	15	24	20,80	2,859

1) Systole

- Before the systole intervention the minimum value was 120 and after the intervention the minimum value became 120 so there was no change
- Before the systole intervention, the maximum value was 195 and after the intervention the maximum value became 179, so there was a decrease
- Before the intervention the average value was 151.27 and after the intervention the average value became 145.45, there was a decrease
- Before the intervention the standard deviation value was 22.024 and after the intervention the standard deviation value became 17.146, there was a decrease

2) Diastole

- Before the diastole intervention was carried out, the minimum value was 80 and after the intervention the minimum value became 73, there was a decrease
- Before the diastole intervention, the maximum value was 128 and after the intervention the maximum value became 115, so there was a decrease
- Before the intervention the average value was 92.13 and after the intervention the average value became 89.20, there was a decrease

- d) Before the intervention the standard deviation value was 12.894 and after the intervention the standard deviation value became 9.712, there was a decrease
- 3) Pulse
- a) Before the intervention the minimum value was 70 and after the intervention the minimum value became 71 so there was an increase
- b) Before the intervention, the maximum value was 92 and after the intervention the maximum value became 86, so there was a decrease
- c) Before the intervention the average value was 82.40 and after the intervention the average value became 79.00, there was a decrease
- d) Before the intervention the standard deviation value was 5.717 and after the intervention the standard deviation value became 5.071, there was an increase
- 4) Respiration
- a) Before the intervention the minimum value was 13 and after the intervention the minimum value became 15 so there was an increase
- b) Before the intervention the maximum value was 25 and after the intervention the maximum value became 24 so there was a decrease
- c) Before the intervention the average value was 21.60 and after the intervention the average value became 20.80, there was a decrease
- d) Before the intervention the standard deviation value was 3.661 and after the intervention the standard deviation value became 2.859, there was a decrease

Table 5. 9 Frequency Distribution of Depression in Elderly Before and After Murottal Therapy Al-Qur'an at Pebayuran Community Health Center Bekasi in 2023

Terapi Murottal	Sebelum		Setelah	
	F	%	F	%
Al-Qur'an				
Depresi Ringan	1	12	6	75
Depresi Sedang	4	50	2	25
Depresi Berat	3	38	0	0
Total	8	100	8	100

Based on table 5.9, the results obtained from 8 respondents before being given Al-Qur'an murrotal therapy to the elderly at Pebayuran Bekasi Health Center in 2023, the majority of elderly experienced moderate depression as many as 4 respondents (50%), severe depression as many as 3 respondents (38%), while the elderly 1 respondent (12%) experienced mild depression. Based on the results of 8 elderly respondents after being given Al-Qur'an murrotal therapy, the majority of elderly people experienced mild depression, 6 respondents (75%), while 2 respondents (25%) experienced moderate depression.

Table 5. 10 Frequency Distribution of Depression in Elderly Before and After Being Given Lemon Aromatherapy at the Community Health Center Bekasi Pebayuran Year 2023

Aroma Terapi Lemon	Sebelum		Setelah	
	F	%	F	%
Depresi Ringan	1	12	2	25
Depresi Sedang	3	38	6	75
Depresi Berat	4	50	0	0
Total	8	100	8	100

Based on table 5.10, the results obtained from 8 respondents before giving lemon aroma therapy to the elderly at Pebayuran Bekasi Health Center in 2023, the majority of elderly experienced severe depression, 4 respondents (50%), moderate depression, 3 respondents (38%), while the elderly experienced mild depression. as many as 1 respondent (12%). Based on the results of 8 elderly respondents after being given lemon aroma therapy, the majority of elderly people experienced moderate depression, namely 6 respondents (75%), while 2 elderly respondents experienced moderate depression (25%).

2. Bivariate Analysis

Normality test on depression levels before and after therapy

Table 5. 11 Shapiro Wilk Normality Test

Variabel	Shapiro Wilk		
	Df	Sig	Normalitas
Sebelum diberikan terapi murrotal Al-Qur'an	8	0.977	Normal
Setelah diberikan terapi murrotal Al-Qur'an	8	0.629	Normal
Sebelum diberikan aroma terapi lemon	8	0.921	Normal
Setelah diberikan aroma terapi lemon	8	0.856	Normal

Normality test

Based on table 5.11 above, the data shows that the Shapiro Wilk Normality Test with a significance value of Sig. At the level of depression before and after being given Al-Qur'an murrotal therapy and lemon aroma therapy, *the p-value was* >0.005 , meaning that all of these variables were normally distributed so that an *independent sample t-test was carried out*.

Independent Sample T-Test for depression levels after being given therapy

Table 5.12 Average Data After Giving Al-Qur'an Murrotal Therapy and Lemon Aroma Therapy at Pebayuran Community Health Center Bekasi in 2023

Hasil	N	Mean	Std. Daviasi	Std. Error
Setelah diberikan terapi murrotal Al-Qur'an	8	3.50	1.852	0.655
Setelah diberikan aroma terapi lemon	8	6.38	2.560	0.905

Independent Sample T-Test

Based on table 5.12, the average result after being given Al-Qur'an murrotal therapy is 3.50 and after being given lemon aroma therapy is 6.38. It is known that the average value after being given murrotal therapy is smaller than after being given lemon aroma therapy.

Table 5.13 Independent Sample T-Test After Given Murrotal Al-Qur'an Therapy And Lemon Aroma Therapy at Pebayuran Bekasi Health Center in 2023

	Levene's Test For Equality of Variances		t-test for Equality of Means			
	F	Sig.	T	df	Sig (2-tailed)	Mean Difference
Setelah diberikan terapi murrotal Al-Qur'an	.526	.480	-2.574	14	.022	-2.875
Setelah diberikan aroma terapi lemon			-2.574	12.750	.023	-2.875

Independent Sample T-Test

Based on table 5.13 above, the data shows that the Independent Sample T-Test with a significance value of Sig. (2-tailed) <0.05, which means there is an effect of providing Al-Qur'an murrotal therapy and lemon aroma therapy on the level of depression in the elderly at the Pebayuran Bekasi Health Center.

To strengthen the research results, an Anova test was carried out

Anova test on the level of depression after being given therapy.

Table 5.14 Anova Test After Being Given Murrotal Al-Qur'an Therapy and Lemon Aroma Therapy at the Pebayuran Community Health Center Bekasi in 2023

ANOVA					
Hasil					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	33.063	1	33.063	6.624	.022
Within Groups	69.875	14	4.991		
Total	102.938	15			

Anova test

Based on Table 5.14, it can be seen that from the results of the ANOVA test, the significance value (Sig) is 0.022 and *F hitung* is 6.624. Because *the P-value* < α (0.022<0.05) and the value *F hitung* > α (6.624>0.05) then H_0 is rejected and H_1 is accepted. Which means there is an influence of Al-Qur'an murottal therapy and lemon aroma therapy on reducing the level of depression in the elderly at Pebayuran Bekasi Health Center in 2023

Discussion

1. Level of depression in the elderly at the Community Health Center Bekasi Pebayuran in 2023 before and after being given Al-Quran murrotal therapy

Based on table 5.3, the results obtained from 8 respondents before being given Al-Qur'an murrotal therapy to the elderly in Pebayuran Bekasi Health Center in 2023, the majority of elderly people experienced moderate depression, 4 respondents (50%), 3 respondents (38%) experienced severe depression, while 1 respondent (12%) experienced mild depression. Based on the results of 8 elderly respondents after being given Al-Qur'an murrotal therapy, the majority of elderly people experienced mild depression, 6 respondents (75%), while 2 elderly respondents experienced moderate depression (25%). The results of this study indicate that providing the Al-Qur'an murrotal therapy method is quite effective in reducing the level of depression in the elderly in Pebayuran Bekasi Health Center in 2023.

elderly period (elderly) is the final stage of the human life cycle, a time when everyone hopes and has the desire to live life in peace, in peace, and enjoy retirement with their beloved children and grandchildren with great love. A person's age can differentiate tasks, functions, roles according to their duties and development. The problems that elderly people often face are economic, social, health, mental and psychosocial problems. The stages of development of the elderly are preparing for conditions of decline, retirement, forming good relationships, preparing for a new life and adapting to social life. /society (Sari et al., 2022) .

According to research (Heni & Syifaa, 2021) shows that the average blood pressure in hypertension sufferers before administering murottal therapy of the Al-Qur'an Surah Ar-Rahman was 152.00 mmHg for systolic and 100.00 mmHg diastolic, whereas after treatment it was 140.67 mmHg for systolic and 88.00 mmHg diastolic. The statistical test results obtained a *P value* of 0.000<0.05 for systolic while the diastolic *P value* was 0.001 <0.05, so it can be concluded that H_0 was rejected, which means that there is

an effect of Al-Qur'an surah Ar-Rahman murottal therapy on reducing blood pressure in hypertensive sufferers.

Reading the Koran capable provide calm for elderly people who experience depression. According to (Nazmi & Al Amin, 2021) that chanting the Qur'an can reduce stress hormones, activate hormones Natural endorphins, increase feeling relaxes, creates calm, controls emotions, thoughts Which deeper and e metabolism _ more Good. Listen murrotal Al-Qur'an which is wrong One activity spirituality has been able to overcome the depression conditions experienced by the elderly.

This is in line with research (Uprianingsih & Health, ND) based on the statistical test *Sample paired T-Test* obtained $p=0.000$, the Asymp value was obtained. Sig. (2-tailed) = $0.000 < 0.05$ and there is a significant difference between the level of depression before and after Al-Qur'an murottal therapy with the average depression score showing a decrease in depression in the elderly who were given Al-Qur'an murottal therapy. So it was concluded that there was an influence of Al-Qur'an murottal therapy on reducing the level of depression in the elderly in Batua Village, Manggala District, Makassar City.

people who listen to murrotal Al-Qur'an have experienced changes in their cognitive and emotional conditions. The elderly become easier to accept the truth of religious values, so that their beliefs increase and become stronger. By listening to murrotal Al-Qur'an, the elderly will feel closer to God and lead them to always remember and surrender all their problems to God, this will increase their relaxed state (Bahrir & Komariah, 2020) .

In line with this, according to research (Nurhayati & Hartiningsih, 2023) from data analysis using the *paired t-test* . The research results showed that before treatment, many respondents experienced moderate stress (50%) and after being given the intervention most respondents experienced mild stress (53.125%). The results of the *paired t-test* showed a t value of -9.841 with a significance of 0.000, which means reading the Al-Qur'an influence the stress of the elderly. The conclusion of this research is that there is an effect of Al-Qur'an murrotal therapy on stress in those experiencing hypertension in Kasihan Bantul, Yogyakarta.

From the results of this research, the researcher drew the conclusion that by listening to the murrotal of the Al-Qur'an effective in reducing the level of depression in the elderly at the Pebayuran Community Health Center in 2023. Elderly people who listened to murrotal Al-Qur'an experienced a decrease in the level of depression in the elderly. In old age religion will looks outside ordinary compared to the upheaval of social life that has begun to end.

Pay attention to the situation and conditions you have by elderly who have experienced decline, from in terms of physical and psychological abilities with religious situations owned, if connected it should create stability in religious values within him. Apart from carrying out these therapeutic activities The elderly can also do other activities to fill their free time, such as themed activities religious. These activities can increase a person's spiritual awareness and can also change circumstances emotion somebody be fun And satisfaction, and can improve confidence religion and individual awareness of self, surroundings and God.

2. Levels of depression in the elderly at Pebayuran Bekasi Health Center in 2023 before and after being given lemon aroma therapy

Based on table 5.4, the results obtained from 8 respondents before giving lemon aroma therapy to the elderly at Pebayuran Bekasi Health Center in 2023, the majority of elderly experienced severe depression, 4 respondents (50%), moderate depression, 3 respondents (38%), while the elderly experienced mild depression. as many as 1 respondent (12%). Based on the results of 8 elderly respondents after being given lemon aroma therapy, the majority of elderly people experienced moderate depression, namely 6 respondents (75%), while 2 elderly respondents experienced moderate depression (25%).

The results of this research show that by providing the aroma therapy method lemons effective enough to reduce the level of depression in the elderly at the Pebayuran Bekasi health center in 2023. According to *the World Health Organization* (WHO) carry on age (elderly) is the population group aged 60 years or more. Law No. 13 of 1998 concerning the welfare of the elderly, namely residents who have reached the age of 60 year to the top. Aromatherapy is the administration of essential oils through massage, topical ointment or lotion, bathing, inhalation, or compresses (hot or cold) to calm, relieve pain, increase relaxation and a sense of comfort (Yulianti, 2022) .

According to research (Sundara et al., 2022), lemon aromatherapy has potential as an anxiety therapy for elderly patients in elderly care units, as evidenced by a decrease in anxiety scores with an average score before administration of 16.28 and after administration of 11.67. Apart from that, lemon aromatherapy has the potential to reduce anxiety in kidney failure patients who are undergoing hemodialysis.

A romatherapy is a healing method using highly concentrated essential oils that are often highly fragrant and extracted from the essence of plants. The chemical content of lemon Pectin is that the essential oil is 70% limonene, alpha-terpinene, alpha-pinene, beta-pinene, citral, felandrene, coumarins, bioflavonoids geranyl acetate, citric acid, linalyl acetate, nerol and nutrients, namely: vitamin A, vitamin B1, vitamin B2, vitamin C (50 mg per 100 gr of fruit) calcium, phosphorus, iron, fiber, protein, carbohydrates, fat.

Lemon essential oil contains 66-80% limonene, geranyl acetate, nerol, linalyl acetate, β pinene 0.4–15%, α pinene 1-4%, terpinene 6-14% and myrcen. The chemical compounds geranyl acetate, nerol, linalyl acetate, have antidepressant, antiseptic, antispasmodic, enhancing effects. sexual arousal and mild sedatives (Wijoyo, 2021) .

Substance One of the things contained in lemon is linalool which is useful for stabilizing the nervous system so that it can have a calming effect on anyone who inhales it. The working mechanism of aromatherapy treatments in the human body is through the olfactory system Capillaries lead to the central nervous system and the brain sends messages to organs in the body that experience disturbance or imbalance. Several scientific studies also show that there are benefits from touch and fragrance in influencing a person's soul and emotional level. Lemon aromatherapy where the oil is extracted from the fruit. It has the benefit of being able to clear and stimulate dawn and can reduce stress, negative thoughts and fear (Judha & Syafitri, 2018b) .

This is in accordance with research (Dewi et al., 2023) showing that lemon aromatherapy has an important impact on the anxiety level of the elderly ($p < 0.05$). Therefore, lemon aromatherapy can be considered an effective method to reduce anxiety.

According to researchers, the lemon aromatherapy method is effective in reducing the level of depression in the elderly at the Pebayuran Community Health Center in 2023. Elderly people who were

given the lemon aromatherapy method experienced a decrease in the level of depression in the elderly. The success of providing aromatherapy is not only influenced by the content contained in lemon, namely linalool, but is supported by the accuracy of the method of administration starting from the distance, quality of the essential oil, the right dose so as not to cause side effects such as nausea and the effective timing of aromatherapy administration. The correct dose given is 2-3 drops, effective inhalation aromatherapy is given for 10 minutes. Providing lemon aromatherapy helps reduce levels of depression and anxiety in the elderly.

3. The effect of the effectiveness of Al-Qur'an murrotal therapy with lemon aroma therapy on the level of depression in the elderly at the Pebayuran Bekasi Health Center in 2023.

Based on table 5.6 above, the data shows that the Independent Sample T-Test with a significance value of Sig. (2-tailed) <0.05, which means that there is an effect of providing Al-Qur'an murrotal therapy and lemon aroma therapy on the level of depression in the elderly at the Pebayuran Bekasi health center in 2023.

The elderly period (elderly) is the final stage of the human life cycle, a time when everyone hopes and has the desire to live life calmly, peacefully, and enjoy retirement with their beloved children and grandchildren with great affection (Widyastuti, 2019) . The conditions of life problems and changes experienced by the elderly, if they cannot be overcome, will increasingly cause stress for the elderly (Widyastuti, 2019) . If this condition drags on, it will cause new problems that will disrupt personal and environmental well-being and can result in mental disorders in the elderly.

Depression is a form of mental disorder related to *mood* or emotional disturbances characterized by ongoing moodiness and sadness. This condition is characterized by a loss of enthusiasm for life, thereby disrupting the sufferer's productivity but not experiencing disturbances in assessing reality (Azari & Zururi, 2021) .

Depression in the elderly is characterized by depressive affect, pessimism, ideas of guilt and worthlessness, feelings of sadness or hopelessness, loneliness, low activity levels, physical fatigue, sleep disturbances, appetite disturbances, gloomy views of the future and concentration, impaired decision making, as well as other physical complaints. Depression is also characterized by negative thoughts about oneself, the world, and the future (Livana et al., 2018) .

Based on research on the level of depression in the elderly, it is known that the majority of elderly people who experience depression are female (56%), the majority of elderly people aged 60 - 69 years are (69%), the majority of elderly people work as laborers (44%), the majority of elderly people are not in school. (62%), the majority of elderly people live with their children (62%), the majority of elderly people who experience depression are widows or widowers (56%), and the majority of elderly people share their homes (69%).

The results of this research can be used as one of the factors causing depression in the elderly. Factors that cause depression in the elderly include biological, psychological factors, chronic stress, and drug use. Biological factors include genetics, structural changes in the brain, and physical weakness. Psychological factors that cause depression are personality type and social support. Depression in the elderly has impacts including shortening life expectancy by exacerbating physical decline in the elderly, reducing the quality of life of the elderly, draining the emotions and finances of the affected person and their family (IDAI, 2021)

Management to reduce depression can be done with two actions, namely pharmacological and non-pharmacological. Pharmacological management is the use of anti-depressants. Non-pharmacological

treatments for depression are supportive psychotherapy, cognitive behavioral therapy, family therapy and relaxation therapy, interpersonal therapy, and counseling and social support (Wisnusakti & Sriati, 2021) .

Therapy is one of the non-pharmacological treatments, namely efforts to restore the health of people who are sick, treat illnesses and treat illnesses. Therapy that is starting to develop in the world today is psychoreligious therapy, one example of this therapy is Al-Qur'an therapy (Nazmi & Al Amin, 2021) .

Therapy with the Al-Qur'an is a medium or way of healing for health problems both psychological and physical. There are several ways that the Al-Qur'an can be used as therapy, namely by reading, writing (khat) therapy, and listening to the chanting of the verses. holy verses of the Koran or commonly called Murrotal. Medical science has revealed many benefits of Al-Qur'an methods for curative treatment. Apart from that, this has also been revealed in the holy book which states that the Qur'an was revealed as healing (Ash Syifaa) and guidance (al-Huda) for believers. "And We sent down from the Qur'an something that is a healing and mercy for those who believe and the Qur'an does not add to the wrongdoers anything other than loss." (Al-Isra` : 82). This murotal therapy works on the brain, where when stimulated by external stimulation (murrotal therapy from the Koran), the brain will produce chemicals called *neuropeptides*. These molecules will connect to their receptors in the body and will provide feedback in the form of pleasure or comfort.

Apart from that, the use of aroma therapy can also theoretically be used as an alternative non-pharmacological treatment for depression sufferers. Aromatherapy is the administration of essential oils through massage, topical ointment or lotion, bathing, inhalation, or compresses (hot or cold) to calm, relieve pain, increase relaxation and a sense of comfort.

The working mechanism of *aromatherapy* in the human body occurs through two physiological systems, namely the body's circulatory system and the olfactory system. When essential oils are inhaled, volatile molecules will carry the aromatic elements contained in the oil to the top of the nose. The vibrating hairs contained in it, which function as receptors, will transmit electrochemical messages to the central nervous system. Messages sent throughout the body will be converted into action by releasing neurochemical substances in the form of feelings of happiness, relaxation or calm.

Lemon aroma therapy is useful for accelerating skin rejuvenation through essential oils which penetrate into the skin thereby increasing blood flow, preventing the emergence of various diseases because it is antibacterial, neutralizing tension and reducing stress, providing comfort (relaxing) through the aroma of essential oils that are inhaled (Judha & Syafitri , 2018a) .

Researchers conducted a study on the effectiveness of using Al-Qur'an murottal therapy and lemon aroma therapy to reduce the level of depression in the elderly at the Pebayuran Bekasi Health Center in 2023.

Based on this research, the average score after being given Al-Qur'an murrotal therapy was 3.50 and after being given lemon aroma therapy was 6.38. Based on the Independent Sample *T-Test*, the Sig. Significance value was obtained. (2-tailed) <0.005, which means that there is an effect of providing Al-Qur'an murrotal therapy and lemon aroma therapy on the level of depression in the elderly at the Pebayuran Bekasi health center in 2023.

From the results of this study, researchers concluded that the use of Al-Qur'an murrotal therapy and lemon aroma therapy was effective in reducing levels of depression in the elderly at Pebayuran Bekasi Health Center in 2023.

Conclusion

1. Before and After Giving Murrotal Al-Qur'an Therapy

Results were obtained from 8 respondents before being given Al-Qur'an murrotal therapy to the elderly at Pebayuran Bekasi Health Center in 2023, the majority of elderly experienced moderate depression as many as 4 respondents (50%), severe depression as many as 3 respondents (38%), while the elderly experienced depression. mild as much as 1 respondent (12 %). Based on the results of 8 elderly respondents after being given Al-Qur'an murrotal therapy, the majority of elderly people experienced mild depression, 6 respondents (75%), while 2 elderly respondents experienced moderate depression (25%).

2. Before and after being given lemon aroma therapy

Results were obtained from 8 respondents before giving lemon aroma therapy to the elderly at Pebayuran Bekasi Health Center in 2023, the majority of elderly experienced severe depression, 4 respondents (50%), moderate depression, 3 respondents (38%), while 1 elderly experienced mild depression. respondents (12%). Based on the results of 8 elderly respondents after being given lemon aroma therapy, the majority of elderly people experienced moderate depression, namely 6 respondents (75%), while 2 elderly respondents experienced moderate depression (25%).

Suggestion

1. For Researchers

It is hoped that the results of this research will be used as a reference or additional data to develop further research.

2. For Pebayuran Community Health Center

It is hoped that this research can provide input for the Pebayuran Community Health Center in using the Al-Quran murrotal therapy method and lemon aroma therapy in reducing the level of depression in the elderly at the Pebayuran Bekasi Community Health Center.

3. For Educational Institutions

It is hoped that this research can become input for broadening horizons, reading material and references as additional literature for the development of knowledge, especially those related to the health of women in old age.

4. For Other Researchers

It is hoped that this research can provide input for future researchers. especially regarding the Effectiveness of Using Murottal Al-Qur'an Therapy and Lemon Aroma Therapy in Reducing Depression Levels in the Elderly.

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