

THE IMPACT OF REMINISCENCE THERAPY AND LEMON AROMATHERAPY TREATMENT COMBINATION ON THE STRESS OF ELDERLY IN BUDI DHARMA ELDERCARE OF UMBULHARJO YOGYAKARTA

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Abstract

Elderly is a person who enter > 60 years of age. Elderly will experience aging process and degradation of function especially the cognitive function which can cause stress on elderly if not being managed. The results of interview toward 8 elderlies in Budi Dharma Eldercare have indicated that elderlies were often having sleep disruption, being short-tempered, easily offended, agitated, and having the decrease in appetite. Stress is a physical and psychological reaction. The stress management can be done by implementing non-pharmacologist therapies, namely through the combination of Reminiscence therapy and lemon Aromatherapy as the method of expression by remembering the old memories along with inhaling lemon aromatherapy. Discovering the impact of Reminiscence Therapy and Lemon Aromatherapy Combination on Stress of Elderly in BudiDarma Eldercare of Umbulharjo, Yogyakarta. Research method Quasi-experimental quantitative study with pre and post tests nonequivalent control group. Simple random sampling was used as the sample technique. The number of respondents was amounted 35 respondents. This research used DASS 42 as the instrument. The impact of therapies was analyzed through Wilcoxon and Mann Whitney tests. The stress scores of the intervention group were 16.89 in mean before the therapy and 5.56 in mean after the therapy. The difference of stress scores of post and pre tests were p-value = 0.000 ($p < 0.05$) on the intervention group and p-value = 0.162 ($p < 0.05$) on the control group. The impact of reminiscence therapy on post test of both group is p-value = 0.000 ($p < 0.05$). There is an impact of the Reminiscence therapy and lemon aromatherapy combination on the Stress of Elderly

Keywords: elderly, stress, reminiscence therapy and lemon aromatherapy combination.

1. INTRODUCTION

Elderly is a person who enter the > 60 years of age. Yogyakarta Special Region is a region with the highest elderly population in Indonesia which amounted to 13.4% [1]. The elderly experiences ageing process and degradation of function, especially on the cognitive functions [2]. The transformation of cognitive functions will cause disorders or organic mental syndrome which commonly referred to as generative and cerebrovascular disorders which affect the mental health of the elderly. Thus, the elderly tends to experience depression, anxiety, and stress [3].

The prevalence of elderly who experience stress has yet to be discovered precisely. The elderly who experience mental-emotional health disorder reached 8.34% in the age of 55-64 years old and 12.55% in the age of 65-74 years old. The number of events for female was higher, namely 8.9% compared to male who reach 5.0%⁽⁴⁾. The prevalence of mental-emotional health disorder in DIY was amounted to 8.1% [4].

The impact of stress on elderly will be fatal if not be handled wisely[3]. Each stressor experienced by elderly will cause the state of physiological balance disorder. If this circumstance lasts for long or if the response is excessive, the vulnerability of elderly toward disease will increase. The stress experienced by elderly will lead to depression which might lead to suicide attempt if not be treated [5].

Reminiscence therapy is one of the efforts that can be done to reduce stress by using the remembrance of the past, feeling, and mind to facilitate the secure feeling, quality of life, or the adaptation of the current situation. Reminiscence therapy is aimed to recalling the pleasuring past, thus, it can arise feeling or positive emotion as well as evoking the confidence of elderly [6]. In addition, the effect of lemon aromatherapy in which the essence oil is extracted from the part of fruit can cleanse and stimulate that able to reduce stress, negative thoughts, and fear. Linalool is one of the substances contained in a lemon which is useful for stabilizing the neuron system, therefore, a calm effect can be experienced for anyone who inhale it [7].

The result of the preliminary study in Budi Dharma Eldercare of Umbulharjo Yogyakarta through the interview toward 8 elderly has shown that the elderly were having stress. Reminiscence therapy and lemon aromatherapy are the methods to express their stresses by remembering the old memories along with inhaling lemon aromatherapy.

2. METHODS

This research was a quasi-experimental study with pre and post tests nonequivalent control group. This research was performed in Budi Dharma Eldercare of Umbulharjo Yogyakarta on March 17-23 2019. The respondent in this research was 36 elderly who divided into two groups namely intervention and control groups that consist of 18 respondents respectively which selected by implementing simple random technique.

Reminiscence therapy was given in 5 sessions within 7 meetings with 120 minutes of time for each session that combined with lemon aromatherapy. DASS 42 was the instrument used in this research with Wilcoxon and Mann Whitney tests as the data analysis.

3. RESULT AND DISCUSSION

Table 1 Characteristics of respondents in Technical Implementation Unit of Budi Dharma Eldercare in March to May 2019.

Characteristics of respondents	Intervention Group		Control Group	
	<i>f</i>	%	<i>f</i>	%
Age				
Middle Age (45-59 years old)	1	5.6	0	0
Elderly (60 – 74 years old)	12	66.7	11	61.1
Old age (75 – 90 years old)	5	27.8	7	38.9
Gender				
Male	1	5	7	38
Female	17	94	11	61
Total	18	100	18	100

Source: Primary Data

According to Table 1, it shows that respondents in intervention group are mostly in elderly category which amount to 12 respondents or 66% and most of respondents in control group are in old age category which amount to 5 respondents or 27%. Based on the characteristic of gender in Table 1, it shows that most of the respondents in intervention group are female which amount to 17 respondents or 94% while most of respondents in control group are also female which amount to 11 respondents or 61%.

Table 2 Stress Scores of Pre and Post Tests of Intervention Group of Reminiscence Therapy and Lemon Aromatherapy Treatment Combination.

Statistics of Intervention Group			
Stress Scores	N	Median	<i>Min-Max</i>
Pre test	18	17.00	15-19
Post test	18	4.00	0-13

Source: Primary Data

According to Table 2, it shows that the median value of stress scores of elderly in intervention group before treated with Reminiscence Therapy and Lemon Aromatherapy combination is 17.00 while after the 7 days treatment of Reminiscence Therapy and Lemon Aromatherapy combination, the median score is 4.00.

Table 3 Stress Scores of control group before and after 7 days treatment without being intervened by the researcher.

Statistics of Intervention Group			
Stress Scores	N	Median	<i>Min-Max</i>
Pre test	18	16.00	14-18
Post test	18	17.00	15-21

Source: Primary Data

According to Table 3, it shows that the median value of stress scores of elderly in the control group before the intervention group was provided with Reminiscence Therapy and Lemon Aromatherapy Treatment Combination is 16.00 while after 7 days without intervention, the median value becomes 17.00.

Table 4 The Difference of Stress Scores of Pre and Post Tests in Intervention Group of Reminiscence Therapy and Lemon Aromatherapy Combination (N=18).

Statistics of Intervention Group			
Stress Scores	Median	Min-Max	P-value
<i>Pre test</i>	17.00	15-19	0.000*
<i>Post test</i>	4.00	0-13	

Wilcoxon Test*

Source: Primary Data (processed March 2019)

According to Table 4, the bivariate analysis through Wilcoxon Test on the intervention group has acquired $p = 0.000$ (normal $p < 0.05$) significant value which means that statistically there is a significant difference of stress score on intervention group before and after the intervention of Reminiscence therapy and Lemon Aromatherapy combination for 7 times of treatment.

Table 5 The Difference of stress score of Pre and Post Tests on Control group (N=18).

Statistics of Control Group			
Stress Scores	Median	Min-Max	P-value
<i>Pre test</i>	16.00	14-18	0,168*
<i>Post test</i>	17.00	15-21	

Wilcoxon Test

Source: Primary Data (processed March 2019)

According to Table 5, the bivariate analysis through Wilcoxon test on intervention group has acquired $p = 0.168$ (normal $p < 0.05$) significant value which means that statistically there is no significant difference of stress score of pre and post tests in control group..

DISCUSSION

a. Pre and post tests scores in intervention group

Table 2 showed that the result of pre test on intervention group have resulted in 17.00 median value. This value/score is categorized as mild stress. This result is consistent with the result of the previous study on elderly in BPSTW Budi Luhur which showed that the median stress score of elderly was 18.72 or in the mild stress [8]. Mild Stress is a stressor faced by individuals regularly, occurring for several minutes or hours, with the indications

of increasing enthusiasm/excitement, and often becoming fatigue without specific causes. These conditions occur due to some factors which cause stress namely physical, psychological, psychosocial, and environmental factors [9]. This result is consistent with the previous study which mentioned that physical health condition, psychological condition, family, environment, and job are the underlying factors of stress [10]. The proper treatment is surely required to overcome stress on elderly. The Technical Implementation Unit of BudiDarma Eldercare has the activity facilities which used as the means to manage stress on elderly such as musical activity, psychology counseling, and gymnastics for elderly.

According to Table 2, the result of posttest on intervention group after treated with the combination of Reminiscence Therapy and Lemon Aromatherapy for 7 days has been acquired in which there was a change of median value to 4.00 which means that there was a decrease of stress score on respondents. Technical Implementation Unit of Budi Dharma Eldercare is very supporting and facilitating the elderly in giving entertainment and channeling their hobbies through various activities such as elderly gymnastics, arts, psychology and spiritual counseling which might be able of directly or indirectly reducing the stress on elderly. This result is consistent with the result of the previous study [11], which mentioned that stress can be managed by laughing, relaxing, doing sports, solving problems, getting closer to God, and by channeling the hobbies such as singing, telling stories, drawing, listening and playing music.

b. Pre and post tests scores in control group

Table 3 showed that the result of pretest on control group has indicated 16.00 of median value which means that the average respondents of control group were in mild stress condition. This result is consistent with the previous study performed toward elderly in Nursing Home of Lhoksumawe City which showed that in average, the stress score of elderly was in mild stress category of which about 14 (25.4%) of 56 elderly were having mild stress [12]. The indications of mild stress include the increasing level of excitement, sharp vision, energy increases although the energy reserve decreases, often becoming fatigue without specific causes, system disorders occur at some point such as indigestion, muscle issue, chapped lips, hard to breath, tremor on hands, feeling relieved when the situation ends, anxious feeling [5]. Based on the theory, the symptoms of stress are heart palpitations, insomnia, strained muscles, exhausted, hard to relax, anxious, and being sentimental [5,13]. The increasing level of stress on elderly can be caused by the stressors faced by the elderly. The characteristics of stressors which can affect the body response toward the experienced stressors are the nature of stressors, duration of stressors, amount of stressors, personality types, past experiences in facing stressors, it is still possible that the stress score of elderly in control group to increase because the elderly do not receive special therapy to manage stress and the responses of elderly toward stressors depend on the way elderly assess and face the source of the stressors that being experienced [14].

c. The difference of pre and post tests on control group

According to Table 5, the bivariate analysis through Wilcoxon test on the intervention group has resulted in $p = 0.168$ (normal $p < 0.05$) which means that statistically, there was no significant difference of stress score of pre and post tests in control group. Reviewed from the difference of median, there was an increase of median value (16.00) of the pre test which shifted to 17.00 in post test period in which this score is categorized as mild stress variation. According to the result of the previous research on the control group, the reminiscence therapy on the stress level of elderly in PSTW Unit Budi Luhur, Kasongan, Bantul, Yogyakarta has shown an increase in stress score median of pre-test which was from 8.26 to 10.58 in post-test [15]. The increase occurred because respondents did not obtain reminiscence therapy and lemon aromatherapy. The stress which keeps getting accumulated will cause several impacts.

The impacts which emerged when someone is stress are physical impact such as headache, mental and emotional impact such as being easily offended and the change of dietary habit, intellectual impact i.e. the decline in either short-term or long-term memory, social and spiritual impact the disruption of individual relationship towards the life, the disruption of physiological balance such as the decreasing level of interest and activity as well as the declining level of energy. These conditions show that the proper stress management is highly required by elderly.

d. The Impact of reminiscence therapy and lemon aromatherapy combination on the stress of elderly in Technical Implementation Unit of BudhiDarma Eldercare

According to Table 2, it has been known that 0.000 (normal $p < 0.05$) of significant value has been acquired statistically. This result indicates that the combination of Reminiscence therapy and lemon aromatherapy has impact on the stress of elderly in Technical Implementation Unit of Budi Dharma Eldercare. In accordance with the statement in a book entitled as Nursing Intervention Classification (NIC), it is mentioned that Reminiscence therapy can reduce stress by using the remembrance of past events, feeling, and mind to facilitate the comfort, life quality, or adaptation in the current situation [6].

According to the statement of the previous research mentioned by Judha & Syafitri (2018), the essence oil extracted from lemon aromatherapy can provide purifying effect as well as giving the feel of happiness and able to reduce stress. When the scent of lemon is inhaled through nose, the volatile molecules of the oil will be carried by the air flow toward the nose. When those molecules attach, an electrochemical message will be transmitted through olfactory channel into limbic system which will be able to stimulate emotional response. Hypothalamus contributes as the relay and regulator of the occurrence of messages which have to be distributed toward other parts of the brain and body. The received messages then be transformed into actions as the release of electrochemical compound that causes euphoria, relaxing or adaptive condition. This limbic system is specifically used in emotional expression. Besides the inhalation process, lemon aromatherapy can be given through massage, topical ointment or lotion, bath, or compression as well. These conditions are also affected by reminiscence therapy.

When elderly are provided with reminiscence therapy, their pride will increase and will help the individual to achieve self-awareness and self-understanding, adapting with the stress, and seeing the part of themselves from the context and culture as well as giving pleasuring experiences to improve the quality of life, this therapy also enhances socialization and relationship with others, provides cognitive stimulus and facilitates the elderly to adapt with stress. Therefore, when both of this therapy are combined, the impacts in reducing stress become more optimal. Besides reducing the stress, the treatment of lemon aromatherapy could also overcome the breathing issue, fear, depression, mental fatigue, insomnia, and hysteria.

Consistent with the previous research which showed that reminiscence therapy can overcome stress on the elderly[15]. Another study related to the treatment of lemon aromatherapy overcome anxiety has been conducted which showed that there was an impact of lemon aromatherapy for the anxiety on elderly. In view of the above, it can be concluded that the combination of reminiscence therapy and lemon aromatherapy are crucial to be given toward elderly in overcoming stress, in addition, they can be used as well to overcome anxiety[7].

4. CONCLUSION

- a. The median values of stress score of elderly before and after the combination treatment of reminiscence therapy and lemon aromatherapy in Budi Dharma Eldercare of Umbulharjo Yogyakarta were 17.00 and 4.00 respectively.
- b. The median values of stress score of elderly on the control group before and after the combination treatment of reminiscence therapy and lemon aromatherapy in Budi Dharma Eldercare of Umbulharjo Yogyakarta were 16.00 and 17.00 respectively.
- c. There was a difference of stress score of elderly in the intervention group before and after the treatment of reminiscence therapy and lemon aromatherapy combination.
- d. There was no difference of score stress on the control group.
- e. There was an impact of the combination of reminiscence therapy and lemon aromatherapy on elderly in Budi Dharma Eldercare of Umbulharjo Yogyakarta.

5. RECOMMENDATION

- a. For Elderly
The combination of reminiscence therapy and lemon aromatherapy should be established as one of the effective treatments to manage stress on elderly. Supported by therapists, in addition, this therapy can also be made as the management of anxiety and depression on elderly.
- b. For the staffs of Budi Dharma Eldercare
The staffs of Budi Dharma Eldercare could learn then implement these therapy as one of the coping mechanisms provided to elderly as the stress management.
- c. For the management of Budi Dharma Eldercare

The management of Budi Dharma Eldercare can include the combination of reminiscence therapy and lemon aromatherapy as the treatment in managing stress at Budi Dharma Eldercare. The special therapy schedule every week can be added and conducted routinely.

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