Changes in Quality of Life and Estrogen Menopausal Women Through Hypnotherapy

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ABSTRACT
Background: Menopausal women's quality of life is affected by ovarian estrogen decline, symptoms & complaints: Physical, Psychological, Vasomotor and Sexual. Estrogen hormone replacement will have an impact on the occurrence of carcinoma, so it is necessary to introduce alternative treatment hypnotherapy as a substitute for pharmacological treatment.
Objective: to measure the potential of hypnotherapy in improving the quality of life of menopausal women.
Population: Menopausal female
Materials and Methods: The study used a quasi-experimental, Design: with a control approach (pre-posttest). Menopausal female respondents (45-60 years old) from Malang City, treatment group 75 and control 75 respondents. The treatment was carried out 2 times with an interval of 4 weeks. The activity was held in March – June 2023.
Results: MenQoL modification scale questionnaire (44 items) from 30 respondents: Validity Test: r= 0.958-0.998 (Valid) and Reliability Test r=1.00 (Very High). Hypnotherapy Effect Test (Wilcoxon): MenQoL Experimental p-value 0.000 (significantly different); MenQol Control p-value 0.357 (no significant difference) and Experimental Estrogen: p-value 0.000 (significantly different); Estrogen Control p-value 0.000 (significant difference). Test the difference (Δ) between the pre and post mean: Experimental MenQoL -31.58 < Control MenQoL 3.95 and Experimental Estrogen 236.972,18 > Control Estrogen -90.223,31. Experimental MenQoL Normalization Gain Test with an improvement value of 86.6%; MenQoL Control worsening 57.3% and Experimental Estrogen with an improvement value of 68 %; Estrogen Control with an improvement value of only 20 %.
Conclusion: Hypnotherapy has an impact on improving the quality of life of menopausal women through increased MenQoL and Estrogen.
Clinical Rehabilitation Impact: Improvement Menopausal Quality of life.

1. Introduction

Menopause is not getting a period for 12 months followed by physiological processes from the ovaries that no longer provide FSH and LH signal responses from the pituitary gland[1]. Just before menopause. As we get older in menopause, the ovaries are unable to respond to FSH and LH as they should, so the estrogen and progesterone produced by the ovaries are decreasing[1][2].

The decline in the quality of life of menopausal women is related to disorders and complaints that occur in the menopause process due to a decrease in the hormones Estrogen. Estrogen plays a role in the onset of Physical (urinary incontinence, Osteoporosis), Psychological (Emptines, Depression), Vasomotor (Hot Fluse) and Sexual (dry vaginal mucus, Dyspareunia)[3]. Complaints that occur in menopause can cause psychological changes as long-term symptoms in the form of stress, depression, post power syndrome, emptiness syndrome[3]. Menopause with integrative function of the hypothalamic pituitary adrenal axis (HPA-Axis) and hypothalamic pituitary gonad axis (HPG-Axis) which are regulated by GABAergic signaling at gonadotropin releasing hormone (GnRH) levels, respectively. The existence of a stress burden will aggravate the physiological state of menopause which is already burdened by the appearance of complaints that occur, and will directly affect the load on the HPA and HPG axes, as a result of which there is a decrease in GnRH followed by a decrease in Estrogen[1][2]. It is expected that the number of menopausal women will increase by 2025 to around 60 million[4]. This improvement is the basis for researchers to seek new governance breakthroughs to create an instrument to measure the quality of life scale and the management of alternative treatments[5][6][7]. The use of hypnotherapy is already very popular and many journals claim many benefits[8][9][5][10]. Judging from treatment techniques, hypnotherapy is very far from its use from negative pharmacological effects, including

from the danger of cancer which is widely echoed in the administration of treatment with estrogen hormone replacement therapy (Hormone Replacement Therapy = HRT) at this time[4][11]. Monitoring of the teta waves during hypnotherapy using Muse-2 (Electro-Enchepalograpy=EEG Android application), will provide an overview of how the state of the respondent's brain waves continuously remains in the position of the teta waves, so that it can be confirmed that the repondent state is in the Trance position[12] [13].

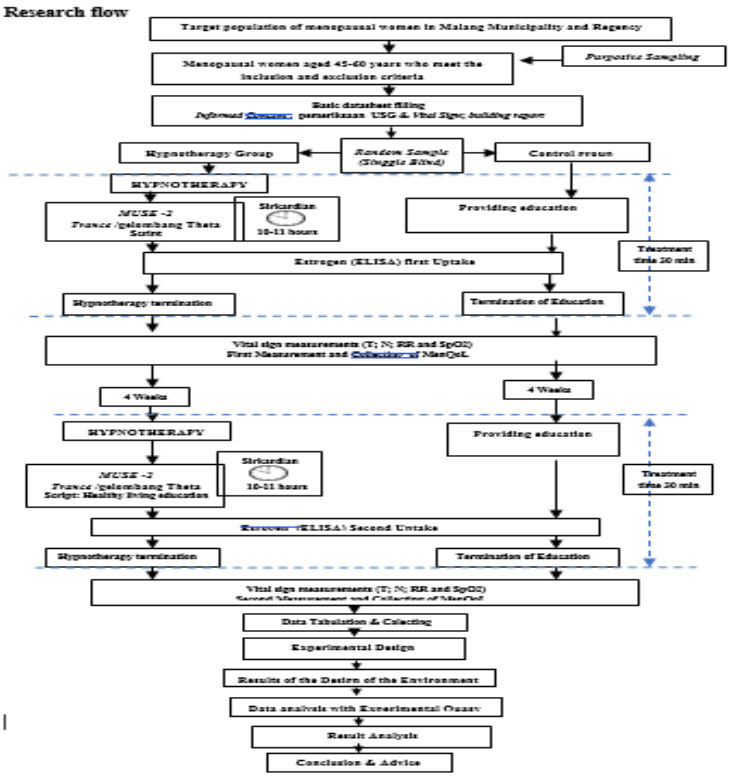
In this Review, we will discuss the role of a new instrument of measuring the quality of life of menopausal women using the menopause "modified" scale of quality of life, which contains MenQoL Hilditch, 1996 plus social, economic and cultural (demographic) components. The intervention used was a hypnotherapy method with a healthy living education script[14][15].

The general purpose of this study is to prove the potential of hypnotherapy to increase the scale of menopause modification of quality of life through changes in the hormon estrogen[14].

The research design uses a quasi-experimental design that is determined in a random non-random manner. The control approach is group pretest-posttest by comparing between two groups, namely treatment and control. The treatment group was given hypnotherapy and the control group was not given hypnotherapy, then both groups were taken blood serum for further examination of Estrogen levels (blood collection in the hypnotherapy group was momentarily in the hypnotherapy phase, but still in the trance phase) then both groups were assessed on the MenQoL modification scale by filling out a questionnaire (filling in the hypnotherapy group was done after being fully conscious), After 4 weeks, the same treatment was repeated in both groups. The hypotheses are expected to be significantly different between the hypnotherapy group compared to the control group. Both groups are in a lying position on a mattress mattress, in hypnotherapy the stages of the hypnotherapy process are continued until the trance state is then given educational suggestions[16], on the other hand, in the control group only education is given and should not be until the state of sleep[12]. The treatment process in both groups must follow the rules of Circadian hours, namely all disciplinary treatment activities start at 08.00 and end no later than 11.00[17].

2. Materials and Methods

The study was conducted in the city and district of Malang by including menopausal female respondents aged 45 – 60 years according to the criteria set in the inclusion, exclusion and dropout criteria. Number of respondents in the experimental group: 75 and control group: 75. He is eligible to be accepted as a respondent after signing the Informed concent statement (respondent and husband). The research was carried out after obtaining permission from the local government No: 072/2170/35.07.207/2023 and Ethical Clereance Recommendation no: 60/EC/KEPK-S3/03/2023. The implementation from March 1, 2023 to May 30, 2023 was carried out by a team consisting of 5 Hypnotherapists (Advance certified)-10 enumerators, Plebotomy officers (certified). Use of Electro-Enchephalography (EEG) muse-2 android app to monitor hypnotherapy treatment responders in trance states. The examination of estrogen hormons was carried out at the Malang research-hub-lab which has been accredited "KAN", the results were then carried out data collection, tabulation, analysis and conclusions.



3. Results

The results of the assessment of the MenQoL modified scale questionnaire of 44 question items applied to 30 respondents of menopausal women in the city and district of Malang, the results of the Validity Test (Cronbach's Alpha), the questionnaire was declared valid with an r value between the coefficient of 0.958-0.998 and the reliability test (Kuder-Richardson) obtained a value of r = 1.00, declared to be very reliable. The results of the hypnotherapy effect test on MenQoL with the wilcoxon test obtained a p-value of 0.000 in the experimental group (75 responden) which means "significantly different" and in the control group (75 responden) had a p-value of 0.357 which means "no significant difference". Conclusions: there was a difference between MenQoL-hypnotherapy compared to MenQoL-no hypnotherapy. The results of the hypnotherapy effect test on Estrogen (wilcoxon test) were obtained in the experimental group with a p-value of 0.000 (75 responden) which means "significantly different" and the control group with a p-value of 0.000 (75 responden) which means "significantly different". Conclusions: there was a difference between Estrogen-hypnotherapy compared to Estrogen-no hypnotherapy. Difference (Δ) between the pre and after intervention mean: MenQoL in the experimental group -31.58 (75 responden) was smaller than the MenQoL control group 3.95 (75 responden) and Estrogen in the experimental group 236.972,18 was larger than Estrogen in the control group – 90.223,31 (75 responden). The conclusions produced: test the mean difference between pre and after intervention, obtained: hypnotherapy will decrease MenQol values and increase Estrogen levels compared to no hypnotherapy. The results of the MenQoL N-Gain test showed a decrease in value (improvement) of 86.6% (75 responden) in the experimental group and MenQoL with an increase in value (regression) of 57.3% (75 responden) in the control group. The effect of N-Gain hypnotherapy on Estrogen levels had an increase (improvement) value of 68 % (75 responden) in the experimental group, while Estrogen in the control group had a decrease in value (worsened) by 80.1 % (75 responden). The conclusion obtained was that hypnotherapy would improve MenQol and Estrogen.

Table 1. Recapitulation of the results of the comparison test between before and after Treatment in the Experimental group (75 responden) and the Control group (75 responden).

Comparison of Pre Vs Post on Data	Kelompok	Wilcoxon Z test	p-value	Conclusion
MenQoL	Experiment	-6,023	0,000	Significantly Different
	Control	-0,922	0,357	No Significant Difference
Estrogen	Experiment	-3,617	0,000	Significantly Different
	Control	-5,851	0,000	Significantly Different

Table 2. Test the hypothesis of comparison of mean difference (Δ) in the experimental group (Pre-Post) (75 responden) and control (Pre-Post) (75 responden).

Variable	Average difference (Δ)		Comparison Results Average Difference (Δ)
	Experiment	Control	
MenQoL	-31,59	3,95	Experiment < Control
Estrogen	236.972,18	-90.223,31	Experiment > Control

Table 3. N-Gain value changes in MenQoL after Treatment.

N-Gain (Trend) on MenQoL Data	Experiment		Control	
	f	%	f	%
Decreased - High	10	13,3	11	14,7
Moderately decreasing	19	25,3	10	13,3
Decreasing - Low	36	48,0	10	13,3
Unchanged (fixed)	2	2,7	1	1,3
Increased - Low	1	1,3	19	25,3
Increased - Moderate	3	4,0	22	29,3
Increased - High	4	5,3	2	2,7
Total	75	100	75	100

Table 4. N-Gain value changes in Estrogen after Treatment.

N-Gain (Trend-Power) on Estrogen Data	Experiment		Control	
	f	%	f	%
Decreased - High	0	0,0	23	30,7
Moderately decreasing	0	0,0	5	6,7
Decreasing - Low	24	32,0	32	42,7
Unchanged (fixed)	0	0,0	0	0,0
Increased - Low	45	60,0	3	4,0
Increased - Moderate	5	6,7	1	1,3
Increased - High	1	1,3	11	14,7
Total	75	100	75	100

4. Discussion

Hypnotherapy interventions are associated with socio-demographics.

Hypnotherapy treatment requires open and communicative communication and personal approach between the hypnotherapist and the respondent, this will facilitate and accelerate the process of hypnotherapy stages to the trance stage and the giving of suggestions. The success of suggestions to respondents is inseparable from the existence and absence of things that are contrary to the beliefs adhered to, things that are hidden as secrets that must be covered and the existence of unresolved conflicts. With almost 100% of religion, education, ethnicity and marriage will facilitate the interview stage (building report), which supports the success and speed of the induction and suggestion stages.

Hypnotherapy interventions lowered the Menopause-Specific Quality of Life (MenQoL) modification scale in menopausal women.

The MenQoL (Menopause-Specific Quality of Life) modification scale is an instrument to evaluate and measure the quality of life of menopausal women. The MenQoL scale was first introduced by J.R. Hilditch in 1996 and covers four domains: vasomotor symptoms (hot flashes), somatic symptoms, psychological symptoms (anxiety) and sexual dysfunction, the researcher developed with additional socio-demographic modifications (Age, Religion, Education, Ethnicity, Marital Status, Income). The worsening of the MenQoL modification scale during menopause actually reflects the changes that are common in a woman's body and psychological well-being during the menopausal period, and will experience severe deterioration as stress increases. The results showed that the decrease in the MenQoL modification scale in the experimental group (Wilcoxon Z test p-value 0.000) reflected a positive change in the quality of life of menopausal women (vasomotor, somatic symptoms, psychological symptoms and sexual disorders), because with a lower value of the MenQoL modification scale, the quality of life will be better. On the contrary, an increase in the value of the MenQoL modification scale in the control group does not indicate a beneficial change in quality of life, it will even decrease further. The average difference (Δ) of the experimental MenQol (-31.59) was smaller than that of the control MenQol (3.95), and also had an improvement value in quality of life, in addition to the value of N-Gain which showed an improvement trend in the experimental group MenQoL (86.6%). In line with research conducted by Diem et al. (2020) that uses therapy, especially mindfulness-based stress reduction (MBSR) training, it has been proven to

significantly reduce the value of the MenQoL scale in menopausal women. Another study found that MBSR training resulted in an average decrease in the total MenQoL scale by 0.3 to 0.5 points from baseline, indicating a significant change in the quality of life of menopausal women (van Driel et al., 2019). This suggests that hypnotherapy therapy can be an effective approach to lower the MenQoL Scale, which is used to assess the impact of menopausal symptoms on women's quality of life. Although different in technique and approach, the study shows a role in improving women's quality of life during menopause. Thus, hypnotherapy shows the potential to be a very valuable treatment method in relieving symptoms and complaints, as well as providing an improvement in women's quality of life during menopause. This finding is one of the alternative treatment options for the management of menopausal symptoms holistically.

Hypnotherapy interventions increased Estrogen levels in a group of menopausal women.

Based on this study, it can be concluded that in the hypnotherapy group will have an impact on increasing the average value of Estrogen Experimental p-value 0.000 (significantly different); Estrogen Control p-value 0.000 (significant difference). Test the difference (Δ) between the Experimental Estrogen 236.972,18 > Control Estrogen -90.223,31. Experimental Estrogen Normalization Gain Test with an improvement value of 68 %; Estrogen Control with an improvement value of only 20 %. , this leads to an improvement in the Estrogen and ultimately an improvement in the quality of life of menopausal women. Increased estrogen will reduce symptoms and complaints that occur in menopausal women, at least 4 complaints have improved, namely: Physical (urinary incontinence, Osteoporosis), Psychological (Emptines, Depression), Vasomotor (Hot Fluses) and Sexual (dry vaginal mucus, Dyspareunia). Other research on increasing Estrogen using hypnotherapy has not existed, but there are some studies that suggest that mindfullness-training (related to peace of mind) can reduce symptoms of depression. Hypnotherapy offers a more valuable approach in the management of menopausal women's treatment, which will ultimately improve their quality of life.

5. Conclusion

Based on the research that has been conducted, it is known that several:

1. Results from religious, educational, ethnic and marriage groups showed almost 100% of the same variation between groups.

2. The MenQoL Modified Scale Questionnaire can be used, as it has high validity and reliability: Validity test = 0.998 > r (0.958) and Reliability test: Cronbach's Alpha 1,000.

3. Hypnotherapy exerts an improving effect on the MenQoL Modification Scale and Estrogen.

4. Hypnotherapy provides an improvement in the quality of life of menopausal women.

Suggestion

Based on the research that has been conducted, some suggestions that can be considered are:

1. The MenQoL modification scale can be widely used to assess the quality of life of menopausal women.

2. The use of hypnotherapy is more beneficial to improve the quality of life if it continues to be used independently.

3. Independent hypnotherapy training to the community will help improve the quality of life of women.

4. The development of clinical practice guidelines that outline the indications, techniques, and protocols for the use of hypnotherapy in the management of menopause can help standardize treatment and ensure its effective and safe use.

DISCLOSURES

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Conflict of interest

The authors declare no conflict of interest.

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Author contribution

All authors have contributed to all processes in this research, including preparation, data gathering and analysis, drafting and approval for publication of this manuscript.

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