



Effect of Tailormade Aerobic Exercise Protocol On Quality of Life in Postmenopausal Women

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Abstract

Introduction/ Background:

Menopause is the time of life when the menstrual cycle ceases. Postmenopausal females undergo various physical and psychological changes that leads to symptoms which may affect their quality of life. The postmenopausal women's experiences of the symptoms as were tested according to the menopause specific quality of life (MENQOL). As literature suggest Physical activity can relieve the symptoms there is a need of structured and Tailored exercise protocol to improve quality of life.

Materials And Methods:

This is pre and post intervention trail which was conducted in urban and semi urban areas of Aurangabad city. 26 individuals, aged 40-65 menopausal women were included in the study based on Eligibility criteria and using convenient sampling method. Tailormade made exercise protocol used for intervention with Duration 6-week, menopause-specific quality of life questionnaire (MENQOL) used as an outcome measure.

Results: At the end of the six-week intervention obtained the results which shows a significant effect on QOL which is Pre intervention mean 100.53 and post intervention mean 62.80 respectively. And the P- value is 0.0021.

Conclusion(S):

From the results we got to conclusion that tailormade exercise protocol can significantly improve vasomotor symptoms, psychological symptoms, and physical symptoms & overall quality of life of Postmenopausal women.

Keywords: MENQOL, Postmenopausal women, Tailormade Exercise Protocol, Vasomotor symptoms.

Quality of life

Introduction

Menopause is the time of life when the menstrual cycle ceases. Although menopause is a normal event for women individual experiences vary, and some women seek medical advice for the management of symptoms.¹

Many symptoms have been attributed to menopause, but only vasomotor dysfunction and vaginal dryness are consistently associated with this time of life in epidemiological studies.¹

Other common symptoms such as mood changes, sleep disturbances, urinary incontinences, cognitive changes, somatic complaints, sexual dysfunction, and

reduced quality of life may be secondary to other symptoms or related to other causes.²

Age of menopause is a very important biomarker of not only the loss of fertility but also an increased risk for various mid-life diseases and problems.³

The average age of post-menopausal women is 46.2±49 years at the age of natural menopause in India³.

A woman transitioning through midlife may experience many adjustments with family and work-life bothersome menopausal symptoms may only add to this burden and discomfort. The quality of life of post-menopausal women using quality of life reproductive demographic factors.⁴

Reducing the degree of bother from menopausal systems may greatly enhances the quality of life of the menopausal women.⁴

World health organization defines quality of life as an individual's perception of their position in life in the context of culture and values system in which they live and in relation to their goal expectations, standards and concerns.⁴

More than 80% of the women experiences physical or psychological symptoms in the years when they approach menopause with various distress and disturbances in their lives, leading to decrease in the quality of life.⁵

The data such as the socio demographic information the menstrual status which was based on the reported length of time since the last menstrual period and the experiences of the symptoms as were tested according to the menopause specific quality of life (MENQOL).⁵

Menopause rating scale and same has been acknowledged in references. MENQOL consists of 29 items and four domains. vasomotor (1-3), psychological (4-10), physical (11-26), sexual (27-29).⁵

Age and BMI are significantly associated with scoring of vasomotor domains. There is a significant difference found in the sexual domains and scoring of quality of life.⁵

MENQOL has been applied in Europe, China, and in some other developing countries.⁵

The literature surrounding the association between hot flushes and physical activity is unclear some studies have found a dose response relationship that demonstrated increased physical activity was helpful in reducing hot flashes.⁵

But as per our knowledge there are very few studies using a tailor-made aerobic exercise protocol in Indian population, so purpose was to know effects of Tailor-made protocol on Quality of life in Postmenopausal women.

Materials And Methods

This is pre and post intervention study which was conducted in urban and semi urban areas of Aurangabad city. 26 menopausal women aged 40-65 were included in the study based on Eligibility criteria and by convenient sampling method. Tailor-made exercise protocol used for six-week intervention, menopause-specific quality of life questionnaire (MENQOL) used as an outcome measure.

Procedure:

After Ethical approval from Institutional ethical committee, ICE Approval No: MGM/IOP/ICE/2021-UG/36.

Patient screened on the bases of eligibility criteria. A survey was made with the help of Google forms questionnaire circulated among the postmenopausal women via emails and other social media platforms such as Facebook, WhatsApp, and the data was collected their feedbacks recorded and collected by convenient sampling method after this pre-post data was analysed using statistical software.

A pre-treatment base line data would be extracted followed for tailor-made exercise protocol 30 min a day for 6 weeks.

The patient would be instructed on a tailor-made exercise protocol which would be performed six day a week with one day of active rest with a total duration of six weeks. After a period of six weeks a post treatment assessment will be taken and data would be analysed using paired t-Test.

Statistical Tests: [As Applicable]

Paired T-Test

After the data is taken accordingly it would be entered in Microsoft Excel and analysed using

percentage analysis. Data would be analysed using SPSS (Statistical package for the social sciences) version 24.0th. Mean and SD will be calculated for quantitative variables.

Appropriate data would be represented on visual impressions like bar diagram, pie chart of before and after values. A Paired t-test would be applied for checking the significant difference between pre and post treatment in a group. P value of > 0.05 would be considered statistically significant.

Results

In this Quazi-experimental study, 26 postmenopausal women took part the average age ranging from 40 to 65.

We administered the menopausal-specific quality of life questionnaire as an outcome measure of quality of life.

Exercise protocol for postmenopausal women was a specific exercise protocol developed & administered to those women participants, at the end of the sixth week we obtained the following results.

The basic parameter for anthropometrics is Body mass index (BMI) was also found that the average BMI with mean & SD 25.3 ± 5.04 .

Discussion

This is the first showing that tailored exercise programme for postmenopausal females in improving vasomotor symptoms, statistically significant improvement found in intervention group, compared to control group. Very few studies used tailor-made exercise protocol in Geriatric or other diseased population, for outcome evaluation MENQOL has been used, which consists four domains: vasomotor, psychological, physical, and sexual.

For menopausal women who practiced sixth-week regular exercise protocol for postmenopausal participants in our study, 14.8% of women had experienced moderate to severe forms of vasomotor symptoms addition, whereas post-study only 3.7% of the participants also observed participants who practiced regular exercise protocol had experienced less psychological and physical menopausal symptoms.

A similar type of exercise trial reported only 3.7% of women had moderate to severe hot flushes, while

14.8% of women had experienced moderate to severe forms of hot flushes. hence it suggested that yoga and breathing-related intervention can improve the menopause symptoms-related quality of life equivalent to other proven interventions.

The menopausal women in the present study who practiced regular aerobic exercise protocol or equivalent physical activity of different types are beneficial in climacteric women experiencing vasomotor symptoms.

Whereas study of a 12-week exercise program provided only partial support for the role of aerobic exercise in reducing stress responses.¹⁴

But after this protocol a combination of aerobic exercise and yoga is more beneficial in postmenopausal women.

The present study also observed significant decreases in physical symptoms such as muscle and joint pain in the back of the neck or head, feeling a lack of energy, low back ache, frequent urination, and involuntary control problems associated with menopause experienced only 3.0% moderate to severe type of symptoms.

Conclusion

From results in our study, we can conclude that tailor-made exercise protocol can significantly improve vasomotor symptoms, psychological symptoms and physical symptoms & overall quality of life of Postmenopausal women.

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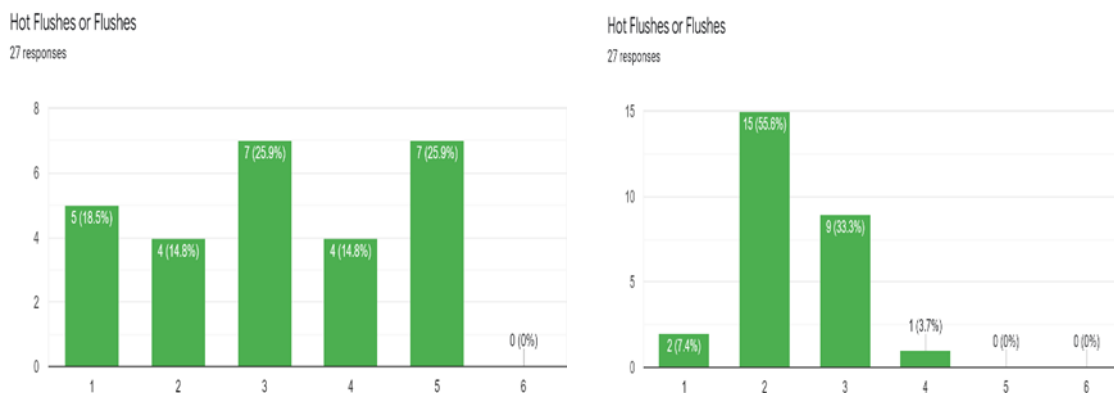
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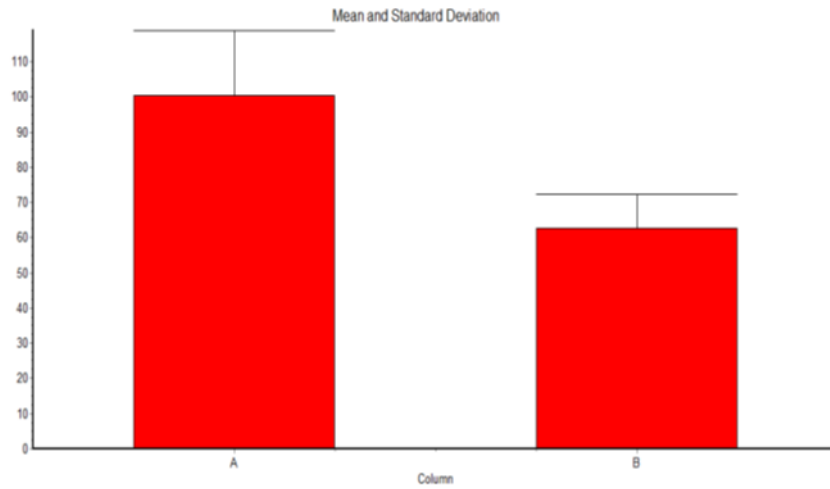
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Figure Legends

“Figure 1 : Graph A shows a higher percentage 14.8%. where Graph B shows 3.7%.”



“Figure 2 : Graph represents pre and post-menopausal outcomes of mean quality of life.”



the Mean \pm 37.731 (Mean of column B minus mean of column A)

The P-value is 0.0021

APPENDIXES: Copyrighted protocol Exercise Protocol For Post Menopausal Women

“Table 1 : represents the pre and post intervention values.”

Group A(Pre)	Group B (Post)	
Mean	100.5384615	62.8077
SEM	3.589	1.892
Sample size (N)	26	26
SD	18.302	9.646
Lower 95% conf. limit	93.144	58.911
Upper 95% conf. limit	107.93	66.705
Normality test P-value	>0.10	>0.10
Passed normality test?	Yes	Yes