

SEDENTARY WOMEN EMPLOYEES AND STRESS LEVEL—AN EXPERIMENTAL STUDY ON LOW IMPACT AEROBIC DANCE EXERCISE

K.P. Prashobhith

Assistant Professor Department of Physical Education, Government Brennen College, Thalassery, Kerala, India

Received: 15 Jul 2020

Accepted: 18 Jul 2020

Published: 31 Jul 2020

ABSTRACT

The prime aim of the study was to investigate the impact of twenty three weeks of low-impact aerobic dance workout on stress levels amongst inactive women employees in a northern district of Kerala state. Inactive participants whose age ranges from 30 years to 40 years; N = 40 were nonspecifically distributed to two different groups, namely, experimental group and control group. Aerobic training was given to the experimental group for 50 minutes, on alternate days each week, for 23 weeks. Paired t-test found noticeable changes in stress levels of inactive women employees. “Aerobic Dancing Group” which is considered as experimental group achieved the advantage.

KEYWORDS: Stress, Aerobic Dance, Low Impact, sedentary, Cardio Vascular Diseases

INTRODUCTION

Low impact aerobic dance exercise provides lasting benefits to the individuals to reduce stress. Low impact aerobic workout is one of the best, and most popular, exercises practiced across the country. It is also a popular activity amongst all age groups, especially very popular amongst sedentary women. Synchronization between music and dance helps to mobilize the movements of each body part, and thereby the whole body. According to a statement published by the WHO, mental ill health, especially stress, will be the second highest leading cause of infirmity and death by the year 2025. Compared to the olden days, where people relied more on psychological corrections and other psychosomatic modalities, at present there is a boom towards doing moderate physical activities to promote psychological fitness. In fact, many Research Scholars and Professors have observed that physical activities, especially activities such as low impact aerobic dance, have got an impact on psychological fitness, especially on stress. The experimental study into the relationship between physical activity and stress is age old, however the repetition, strength, and time of aerobic dance is a question always to be discussed and to be determined for influencing optimum psychological fitness.

Low impact aerobic dance workout is a method of physical activity that strengthens physiological wellness. Low impact aerobic dance contracts big muscle groups to work against gravitational force. According to the theory of Dose-Response propounded by William Haskell, approximately 300 calories per exercise session in every 2 to 3 days at a moderate level of intensity is a prerequisite to have maximum advantage from exercise. Various studies indicate that moderate aerobic dance workout influenced the stress levels of inactive women employees. Here in this experimental study, analyzing the influence between 23 weeks of moderate aerobic dance exercises and stress levels of sedentary women employees of north Malabar (Kannur) was the prime focus of the investigator

METHODOLOGY

The entire experimental study was done in the Department of Physical Education and Sports Sciences, a research department of Kannur University. Forty (40) sedentary women employees in Kannur district of Kerala, as samples, were used for the study to derive the result. Non specific method (in Random) was used to assign the subjects, who are in the age group from 30 to 40 years, towards control group ($n=20$) and in the experimental group ($n=20$). The time allotted for the experimental group to do the required work out was 3 times a week, that is, on all the Mondays, Wednesdays and Fridays between 4.30 pm and 5.30 pm at the University's indoor stadium. The control group was also directed to meet on the same days and venue but from 5.30 pm to 6.30 pm. The experimental group, underwent a low impact aerobic dance exercise in between the pre-test and post-test time. The sedentary women employees completed 69 such sessions in which 50 minutes work out (30 minutes low impact aerobic session along with 10 minutes warm up and 10 minutes warm down). The control group was directed not to do any kind of exercises. The Miller-Smith stress inventory questionnaire was used to collect the data from the subjects. Answers to the criterion variable were collected using the questionnaire a day before the workout started and the concluding day of the workout for experimental group. For the control group, the criterion variable using Miller Smith questionnaire was collected a day before the group assembly and the last day, before their dispersal. The paired T-test was used to derive the result of the study.

Reliability of the data was cemented by test re-test method whereby consistency of the result was obtained by product-moment correlation. The test-retest coefficient of correlation for stress found to be 0.97.

RESULTS

Table 1: T-Ratio on Level of Stress for Experimental Group and Control Group

Control Factors	Pre Test			Post Test			t-ratio
	N	Mean	SD	N	Mean	SD	
Experimental Group	20	24.45	5.72	20	21.35	3.36	3.92*
Control Group	20	22.85	6.24	20	23.45	5.89	1.43

Significant at the 0.05 Level of Confidence.

The above table explains that, there is a noticeable influence between the pre test and post test result over stress in the experimental group. "T" value of 3.92 is higher than tabulated 't' value of 3.71 at 0.05 level of significance. While it was found that there was no noticeable influence in the level of stress among women employees in the control group.

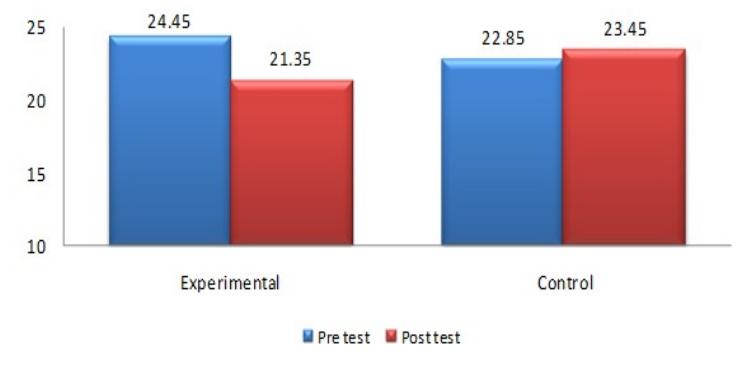


Figure 1: Level of Stress During Pre and Post Test.

ANALYSIS, DISCUSSIONS AND INTERPRETATIONS

The objective of this experimental study was to identify the impact of moderate Aerobic dance exercise workout on stress over sedentary employed women in Kannur district of Kerala. The experimental study found that the experimental group has a considerable reduction in stress at the end of the 23-week training programme when compared to the control group. This result is due to the fact that a large amount work is accomplished with the synchronization between music and the assimilation of flow state during aerobic dance exercise. Flow state might have induced a peculiar state of awareness during low impact dance.

The stress level of the subjects in the study might have reduced due to the fact that the subjects might have felt that they were taking positive steps to improve their psychological fitness. The 23 week long low impact aerobic dance exercise would have produced increased self-efficacy among sedentary women employees, which in turn reduced the level of stress of the subjects is open for discussion.

The reduced stress level of the sedentary women employees in the present study might have caused because of the effect of music is an extension of the research conducted in this field.

CONCLUSIONS

The research findings will definitely pave way for future studies in this field. The research efforts will serve towards redefining wellness and lifestyle of sedentary women employees of Kannur district who suffer from high level stress and thereby improving their employability towards better productivity in their career. In a nutshell a low impact aerobic dance exercise is a more reliable, simple and cost-effective way to become a stress free citizen. It is an entertaining and healthy method that can be made use of by all age groups. To conclude, a low-impact Aerobic dance exercise routine of course reduces total stress of working class women, which in turn improves quality of work.

REFERENCES

1. American College of Sports Medicine *Guidelines for Exercise Testing and Prescription* 4th Ed. Lea & Fibiger Philadelphia, PA 2005
2. Matura J .et al “The effect of low impact aerobic dance exercise on psychological health of sedentary women in Malaysia” *Biology Sport* 2012: volume 29, page 63–69.
3. Mc Inman, A. D., & Berger, B. G. (1993) Self-concept and mood changes associated with aerobic dance. *Australian Journal of Psychology*, 45(3), 134–140.
4. Berger B.G. Running toward psychological well-being: special considerations for the female client. In: M.L. Sachs and G. Buffone (eds.) *Running as Therapy: An Integrated Approach*. University of Nebraska Press, Lincoln, NE 1984
5. Berger B.G., Owen D.R. Stress reduction and mood enhancement four exercise modes: Swimming, body conditioning, Hatha yoga, and fencing. *Res. Q. Exerc. Sport* 1988; volume 59: page148–159.
6. Cohen J. *Statistical Power Analysis for the Behavioral Sciences* 2nd Ed. Lawrence Erlbaum Associates 1988

7. Copeland B.L., Franks B.D. *Effects of types and intensities of background music on treadmill endurance* *J. Sports Med. Phys Fitness* 1991; 31:100–103
8. Cox R. *Sport Psychology Concepts and Applications International Edition* WCB/ McGraw Hill, USA, 2002
9. Creswell J.W. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications, Thousand Oaks, CA 2002
10. Miller-Smith stress inventory
11. Blessing, D. L., Wilson, G. D., Puckett, J. R., & Ford, H. T (1987) *The physiologic effects of eight weeks of aerobic dance with and without hand-held weights* *The American journal of sports medicine*, 15(5), 508–510
12. Landers D.M., Aren't S.M. (2001) *Physical activity and mental health* In: R. Singer, H. Hausenblas, C. Janelle (eds.) *Handbook of Sport Psychology*. 2nd Ed. Wiley, New York 2001; pp.740–765
13. Neiman D.C *The Exercise Health Connection: How to Reduce Your Risk of Disease and Other Illness by Making Exercise Your Medicine*. Human Kinetics, USA 1998