ISSN:2279-0578 eISSN:2582-4589
DEV SANSKRITI VISHWAVIDYALAYA PUBLICATION

Research Arcticle

Effectiveness of Cyclic Meditation on the Level of Respiratory Rate and Efficiency Level Among Ministerial Employees

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Abstract. Higher meditation technique (CM) is not a harder meditation procedure, it's only a cluster of breath awareness, awareness of internal sensations, yoga asana, and relaxation, coined by Dr.H.R. Nagendra with the reference to Mandukya Upanishad 3.44. Various studies of CM depict a positive role in physical well-being and mental illness. This study was described to balance respiratory rate levels and improve efficiency levels through Cyclic Meditation. A total number of 104 male and female ministerial employees were selected in this study whereas 52 male and female ministerial employees as an experimental group and 52 male and female employees as the control group in this study in the age range of 21 to 45. The Higher meditation technique was assessed on respiratory rate and efficiency levels. Both group pre-post design was adopted. The level of respiratory rate levels and efficiency level were measured for all ministerial employees at the onset of the research and after three months. (I) higher meditation practice (CM) was given and (ii) duration was 35 minutes for 3 months. Observation or counting the breath method was used for this study and the quality of life (QOLS) questionnaire was used for assessing the efficiency levels for this study. Data were analyzed using Spss software and to find out the impact of cyclic meditation, a t-test was applied for statistical analysis of the data. There were significant changes in the scores of all respiratory rates ($p<0.05$) and a significant enhancement in efficiency levels ($p<0.01$) after the intervention in the experimental group among ministerial employees. A bunch of awareness as well as various asana (postures), stimulation, and relaxation in meditation balance Respiratory levels and improve efficiency levels after intervention among Ministerial employees.

Keywords. Higher Meditation technique, Cyclic Meditation, Respiratory Rate, Efficiency level, Ministerial employees.

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PUBLISHED BY
Dev Sanskriti Vishwavidyalaya, Gayatrikunj-Shantikunj, Haridwar, India

Introduction

The Efficiency level of an establishment varies depending on the transformation of appropriate guidelines and the potential of its members of staff to pursue them. As a result, the efficiency of ministerial employees handling administrative work in Ministries can be measured by their potential to discharge matters - mostly receivables, civil matters, and so on - with speed and professionalism while adhering to the " as follows for the purpose. The main objective of all government operations is to fulfill the requirements of individuals and expand their well-being. In addition time, the others liable for equitable corporate practices must make sure that government funds are controlled with special diligence and propriety [1]. In the modern era, each & individual life efficiency level and balanced respiratory rate are necessary to do dynamic work in each sector, whether private sector, public sector, or ministries also. Nowadays a man becomes machinery and increases mental stress [2]. And lost their mental peace, increase respiratory rate, and a decline in efficiency levels due to technological changes, work pattern changes, rules and regulation changes, crucial papers works, lengthy processes, targets, and variety of work, etc. Meditation plays a role to enhance efficiency levels as well as balancing the respiratory rate among Ministerial employees. The formulation is the obligation of a Ministry. Of the Government's actions concerning the associated after under AOB (allocation of business rules) guidelines, as well as the implementation, tracking, and overview of those guidelines [2]. Ministerial employees are policymakers or ethically formulate responsibilities. Efficiency can be defined as a homeostatic state of equilibrium that maintains the human being. As well as constructing harmonious stability at the physical, psychological, emotional, and spiritual levels.

Respiration is a natural phenomenon of an individual normal rate of respiratory occurs between 12-15 breaths per minute. But due to anxiety or other circumstances, it increases. Respiratory can be defined as an inhale & exhale through nostrils. Meditation practices can balance the respiratory rate. Various types of meditation are there for balancing respiratory rate among them cyclic meditation which is different from other techniques. It includes various types of awareness and relaxation techniques that help to enhance efficiency levels and balance the respiratory rate of individuals. Various studies depict the role of cyclic meditation enhance the quality of life and reduce stress levels. In this cyclic mediation technique person can have various kinds of awareness such as linear awareness, surface, pointed awareness as well as sensation too. meditation has the power to support people, particularly during trying times [3]. Meditation is a form of training for mental well-being [4]. It enhances employee efficiency and improves respiratory rate.

Methodology

104 samples were conveniently collected and split into two groups' an experiment and a control group from the Ministry of Education. Sarika Sharma and Dr. Nakhat Nasreen developed the Quality of life Scale (QOLS) tool. This (QOLS) tool was chosen for assessing efficiency level and Respiratory rate (RR) among ministerial employees. For three months, thirty-five minutes per day, five days a week, cyclic meditation was practiced. The data was collected using both groups' pre-posttest research design. The study was approved by the Departmental research coordination committee (DRCC), Lakulish Yoga University, Ahmedabad Gujarat, and all participants provided written informed consent also took permission from the Director, Department of Ministry of education.

Sample Details

A total of 104 male-female participants were selected for this study, 52 experiment group and 52 control group who were the employees in the Department of Ministry of Education New Delhi was conveniently selected between the age group of 21 to 45 years.

Research Design

Pre-post quasi-experimental research design with one control group was used in this study. Before and after cyclic mediation (CM) for the

doi.org/10.36018/dsiij.24.347

Results group, and likewise, before and after no intervention for the Control group. Figure 1 represents a schematic design presentation.

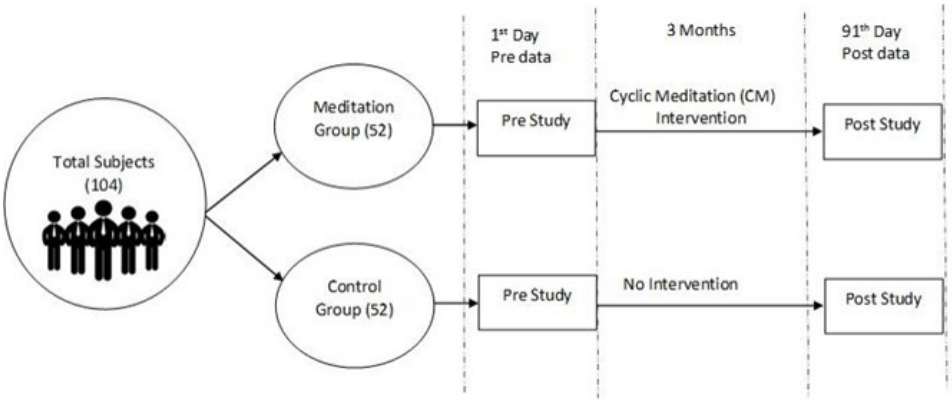

Figure 1: Schematic design of the study

Intervention

The participants went through a three-month CM (cyclic meditation) program. For three months, the intervention consisted of a single session of Cyclic Meditation every day for 35 minutes, five days a week. A total of 60 sessions were conducted for the intervention among ministerial employees. The cyclic meditation technique was tailored by S-Vyasa Yoga University in Bangalore.

S. No	Activity	Duration (Min)	Remarks
1	Opening Prayer	1 min	
2	Instant Relaxation Technique (IRT)	1 min	Relaxation
3	Standing Postures	5 min	Stimulation
4	Quick Relaxation Technique (QRT)	3 min	Relaxation
5	Sitting Postures	5 min	Stimulation
6	Deep Relaxation Technique (DRT)	15-20 min	Relaxation
7	Resolve	1 min	Silence
8	Closing Prayer	1 min	
	Total	35 min	

Table 1: Represents Intervention of the experiment

Assessment

The efficiency level and respiratory rate were assessed using the quality of life scale questionnaire and counting breaths per minute, respectively. The level of efficiency is a three-item QOLS scale dimension designed to assess an individual's level of efficiency. There are 42 items in total in this Qols questionnaire, and 11 dimensions out of 11 dimensions efficiency level one of them to access the efficiency level of an individual this questionnaire was developed by Sarika Sharma and Dr. Nakhat Nasreen [5] and second assessment respiratory rate by using the observation method. An individual's normal Respiratory Rate range is 12-15 breaths per minute. The QOLS has been validated in various samples of individuals ($\alpha = 0.806$) and based on standardized items ($\alpha = 0.821$) [5].

Ethical Statement

The study was approved by Departmental research coordination committee (DRCC) of Lakulish Yoga University Prior to the study began, all participants signed and returned a written informed consent form. Participants were given detailed information regarding the study in their native language.

Data extraction

The questionnaire was scored by calculating the mean of the 42 items. The results were tabulated for every subject which would be evaluated.

Data analysis

The Spss software was used to analyze data. The data were checked for normality by using the Shapiro-Wilk test and afterward paired sample t-tests were applied to determine whether there was a statistically significant difference in the efficiency levels and respiratory rate scores of the meditation group (Pre-Post Cyclic meditation). For the post values of both groups (meditation-control), a between-groups analysis has been performed using an independent sample t-test.

Results

Following the 3 months cyclic meditation-based intervention module, significant improvements were seen in the level of efficiency ($p<0.01$) and respiratory rate ($p<0.05$) among Ministerial employees.

Phase	Mean	SD	Sed	't' Value	Level of Significance
Experiment Group	9	1.793	0.291	2.709	$p<0.01$
Control Group	8.21	1.091			
		df = 102			

Table 2: Represents the efficiency levels of the experiment and control group.

Phase	Mean	SD	Correlation	Sed	't' Value	Level of Significance
Pre	8.27	0.992	0.308	0.244	2.992	$p<0.01$
Post	9	1.793				
		df = 51				

Table 3: Represents the efficiency levels of the experiment group

Group	Mean	SD	Sed	't' Value	Level of Significance
Experiment	17.71	5.011	0.896	0.58	Not Significant
Control	18.23	4.076			
		df = 102			

Table 4: Represents the respiratory rate of the experiment and control group

Phase	Mean	SD	Correlation	Sed	't' Value	Level of Significance
Pre	19.25	5.718	0.493	0.754	2.041	$p<0.05$ Level
Post	17.71	5.011				
		df = 51				

Table 5: Represents the respiratory rate of the experiment group

doi.org/10.36018/dsiij.24.347

Discussion

In this study, before and after cyclic meditation in the experiment group mean ±sd value of respiratory rate decreased from (19.25±5.718) to (17.71±5.011) and the T value was 2.041 which was statistically significant at p<0.05. After cyclic meditation, there was a statistically significant interaction effect in experiment x control, from (17.71±5.011) to (18.23±4.073) which was not significant. Also in the experiment group, the mean ±sd value of efficiency level was increased from (8.27±0.992) to (9±1.793) which was statistically significant at p<0.01.and after cyclic meditation post mean±sd value of efficiency level there was also statistically significant interaction effect in experiment x control, from (17.71±5.011) to (18.23±4.073) and The T-value was 2.709 which was significant at p < 0.01. Hence cyclic meditation significantly increased the efficiency level (at p<0.01) and decreased respiratory rate (at p<0.05) level among Ministerial employees As per [6], in the study" The effect of yoga on cardiorespiratory and physical efficiency of healthy subjects" found that after 10 weeks of yoga intervention significant improvement in the decreased respiratory rate (p<0.001), increase cardiac efficiency level (p<0.05) increase physical efficiency level (p<0.001) in experimental group whereas there was no significant change in respiratory rate, cardiac efficiency, physical efficiency in control group among eighty healthy subjects. According to [7], in the study "Influences Of Blood Pressure And Respiratory Rate Response To Yogic Programed Among Women Badminton Players" found that after six weeks of yoga training programmed the level of blood pressure and respiratory rate significant (p<0.05) level among twenty women badminton players. According to [8], the research study " Effect of Yogic Training on Respiratory Rate of College Students" found that after six weeks of yoga training the respiratory was significant changes at 0.05 level in the experimental group whereas there is no significant changes in respiratory Rate in control group among sixty college going students. According to [9]," in this research study Effect of meditation and pranayama practice on selected physiological variables among university level kho-kho players." Found that after three days in a week of six weeks of pranayama and meditation practices the level of blood pressure, resting heart rate, and respiratory rate was significant at (p<0.05) level among fifteen kho-kho players. According to [10], in the study " Determining the effect of yoga on job satisfaction and burnout of nurse academicians" found that after eight weeks of yoga practice the level of burnout and job satisfaction level significant at (p<0.05) level among seventy nurse academicians. Hence, higher meditation technique (cyclic mediation) has shown significant improvement in respiratory rate and efficiency levels among ministerial employees.

Conclusion

The present study found that cyclic meditation is a higher meditation technique. The regular practice of cyclic meditation combines the body, mind, and soul. It is distinct from other types of mediation techniques or exercises. The techniques, mainly focus on stimulating and relaxation of the body, as a result, it has a major effect on the body, and mind's various multiple tasks such as efficiency level, respiratory rate, and awareness, and constructively bring benefits. In this research study, the level of respiratory and efficient level test results improved following the regular practice of cyclic meditation for three months, resulting in a significant change in respiratory rate and enhancement of efficient levels among ministerial employees. From the above study, we can conclude that it is a healing intervention and significantly changes the effectiveness of higher meditation technique (cyclic meditation) on the level of respiratory rate and efficiency level among ministerial employees.

Compliance with ethical standards: Not required.
Conflict of interest: The authors declare that they have no conflict of interest.
Financial support and sponsorship: None

References

[1] Dar and Pg. Central Secretariat Manual of Office Procedure. Ministry of Personnel, Public Grievances and Pensions Department of Administrative Reforms and Public Grievances; 2015.

[2] Mariappan R, Subramanian Mr. Experimental investigation of cognitive impact of yoga meditation on physical and mental health parameters using electro encephalogram. In: Muppalaneni Nb, Ma M, Gurumoorthy S, editors. Soft Computing and Medical Bioinformatics. Singapore: Springer; p. 129-39. (Springerbriefs in Applied Sciences and Technology). Available from: doi.org

[3] Natarajan A. Heart rate variability during mindful breathing meditation. bioRxiv; 2022. p. 2022.08.06.503051. Available from: biorxiv.org

[4] Kashevnik A, Othman W, Ryabchikov I, Shilov N. Estimation of motion and respiratory characteristics during the meditation practice based on video analysis. Sensors. 2021 May 29;21(11):3771.

[5] Sharma S, Nasreen N. Manual for Quality of Life Scale (QOLS). National Psychological Corporation; 2014. Available from: npcindia.com

[6] Mahajan N, Goyal P, Pandya J. The effect of yoga on cardiorespiratory and physical efficiency of the healthy subjects. Natl J Physiol Pharm Pharmacol. 2019;(0):1.

[7] Vallimurugan V, Vijay J. Influences of blood pressure and respiratory rate response to yogic programme among women badminton players. EPRA Int J Res Dev IJRD. 2021 Sep;6(9):29-33.

[8] Tak Msk, Dmk. Effect of yogic training on respiratory rate of college students. Int J Econ Perspect. 2021 Oct 31;15(1):708-13.

[9] Adhikari A. Effect of meditation and pranayama practice on selected physiological variables among university level kho-kho players. Int J Yogic Hum Mov Sports Sci. 2022.

[10] Kavurmaci M, Turan GB. Determining the effect of yoga on job satisfaction and burnout of nurse academicians. 2021. Available from: onlinelibrary.wiley.com