



THE IMPACT OF CYCLIC MEDITATION ON PSYCHOLOGICAL WELLBEING IN SPECIAL EDUCATORS OF INDIVIDUAL WITH SPECIAL NEEDS.

Clinical psychology

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ABSTRACT

Background: Special educators face unprecedented work conditions and expectations that affect their psychological wellbeing and professional outcome as well. This study examines the growing evidence that even a short-term CM practice enhance psychological wellbeing among special educators by reducing their stress, anxiety and depression levels. **Materials and Methods:** special educators were recruited based on inclusion and exclusion criteria (n=20) age ranging between 25-50 years (Mean 35 ± 6.3) for a single group interventional pre-post study design: CM is a technique of 'moving meditation', which combines the practice of yoga postures with guided meditation was given for a period of 8 weeks. The subjects were assessed on day 1 pre and post intervention on day 30 on perceived stress scale (PSS), Six letter cancellation test (SLCT) and Digit letter substitution test (DLST). **Results:** After 8 weeks of CM practice showed significantly better performance in the SLCT test compared to baseline by Wilcoxon Signed Ranks Test ($P < 0.0001$), DLST scores ($P < 0.0001$) and significant reduction in perceived stress levels ($P < 0.0001$).

Conclusions: The results of this study suggest that even a short-term CM intervention that can enhance psychological wellbeing of the special educators.

KEYWORDS

CM: cyclic meditation, SLCT, DLST, PSS, Special educators.

INTRODUCTION

Special educators face unprecedented work conditions and expectations for assuring the well-being and educational success of the individual with special needs.[1] Special educators are chronically faced with the relentless task of teaching challenging individuals in the context of demanding working environments. This is especially true for special educators of individual with emotional or behaviour disorders.[2] Findings from the earlier studies suggests that the task of educating children with special needs poses significant professional and emotional concerns for special educators.[3] Special educators are under the fears of physical and verbal abuse.[4] and they also face challenges in teaching individuals with multiple disabilities, educators considered their job stressful because of the special needs of children, such as their progress, safety and social development,[5] and student misbehaviour is a major stressor.[6] Stress also affects the psychological, social, and physiological health of educators.[7] Frequent and prolonged stress contributes to burnout and undermines educator's commitment to remain in the profession.[2] evidence suggests that Special educators generally have higher rates of occupational stress, job-related distress, and attrition than educators who are in a regular education.[5] Findings suggests that constant exposure to stressors that may accompany educating an individual with special needs lead to elevated rates of burnout, anxiety and depressive symptoms and reduced psychological wellbeing in educators. Cyclic Meditation [CM] is a technique of 'moving meditation', which combines the practice of yoga postures with guided meditation.[8] the practice of CM leads to deeper physical and mental relaxation, which could be cause for improved positive attitude and approach towards life. Previous study investigated the effects of CM in reducing occupational stress,[9] anxiety, [10,11] reducing depressive symptoms[12,13] and improving quality of sleep among various groups. The health and wellbeing of special educators are important considerations for workforce retention and quality care. The mental health conditions such as stress, anxiety and depression have received little attention. Less attention has been given to enhance the psychological wellbeing of the special educators. Hence, the purpose of this study was to evaluate the effect of an eight weeks of CM in modifying depression, anxiety, and perceived stress that influences mental health status of the special educators, we hypothesize that it would enhance the psychological wellbeing by reducing stress, depression and anxiety symptoms. Given the magnitude of the psychological burden, it is surprising that very few remedial measures are in practice. The cost associated with those composite psychosocial interventions in the community is one of many reasons for the lack of translation into community practice. Our study suggests a low-cost CM intervention that can enhance psychological wellbeing of the special educators.

Subject and methods

A total of 20 secondary caregivers of special need children were recruited for the study using purposive sampling. The study was conducted in Bangalore's two Special needs education centres – Ishanya Foundation and Aruna Chethana, the approval from Institutional Ethics Committee of Swami Vivekananda Yoga Anusandhana Samasthana (SVYASA) was obtained. All the subjects who were willing to participate and who fulfilled the inclusion and exclusion criteria were selected to participate in the study. The researcher followed this procedure of recruitment till a sample size of 20 was reached. Written informed consent was taken from all the 20 subjects. A Single group pre-post design was used for the study. Subjects who were healthy, age between-25-50 years (Mean 35 ± 6.3) and willing to participate were included. Those having neurological and psychiatric disorders (based on case history), those who have practiced meditation for the last 3 months were excluded from the study.

Intervention

Cyclic Meditation [CM] is a technique of 'moving meditation', which combines the practice of yoga postures with guided meditation. This technique is developed by Vivekananda Yoga Research Foundation, Bengaluru (VYASA). [8] The technique has its origin in an ancient Indian text, Mandukya Upanishad. All meditations, irrespective of the strategies involved are believed to help reach the state of dhyana – an uninterrupted flow of consciousness without the distraction of the mind. There are several strategies in CM that include breath awareness, awareness of internal sensations that makes it applicable to people with different tendencies such as rajasic (hyperactive mind), tamasic (sluggish mind) or satvic (balanced mind). [14] In CM, the period of practicing yoga postures constitutes the awakening practices, while periods of supine rest comprise calming practices. An essential part of the practice of CM is being aware of sensations arising in the body. This supports the idea that a combination of stimulating and calming techniques practiced with a background of relaxation and awareness (during CM) may reduce psycho physiological arousal.

Outcome measures

Perceived Stress Scale (PSS)

The Cohen PSS is 10 item scale, each item is rated on a five-point scale ranging from never (0) to almost always (4). For measuring the perception of stress PSS is a widely used psychological instrument. The Cohen PSS is 10 item scale, each item is rated on a five-point scale ranging from never (0) to almost always (4). Positively worded items are reverse scored, and the ratings are summed, with higher scores indicating more perceived stress. Scores around 13 are considered average. Scores of 20 or higher are considered high stress.[15]

Beck's Anxiety Inventory (BAI)

This scale is a Self-report measure of anxiety, including 21 items. Internal consistency for the BAI = (cronbach's $\alpha=0.92$). test re-test reliability (1 week) for the BAI = 0.75 (Beck, Epstein, Brown & Steer; 1988) The BAI was moderately correlated with the revised Hamilton Anxiety Rating Scale (0.51) and mildly correlated with the Hamilton Depression Rating scale (0.25). [16]

Beck's Depression Inventory - II (BDI-II)

The Beck Depression Inventory (BDI-II), created by Dr. Aaron T. Beck, is a 21-question multiple-choice self-report inventory, one of the most widely used instruments for measuring the severity of depression. BDI-II contains 21 questions, each answer being scored on a scale value of 0 to 3. The cutoffs used differ from the original: 0–13: minimal depression; 14–19: mild depression; 20–28: moderate depression; and 29–63: severe depression. Higher total scores indicate more severe depressive symptoms. The test was also shown to have a high one-week test–retest reliability (Pearson $r=0.93$), suggesting that it was not overly sensitive to daily variations in mood. The test also has high internal consistency ($\alpha=.91$). [17]

Data analysis

Statistical analysis was done using 'SPSS, 10' software. Normality was checked using Kolmogorov Smirnov test. As the dataset was not normally distributed, Wilcoxon's test was used to compare the pre-and post-values.

Results

Following 8 weeks of cyclic meditation, there was a significant reduction in anxiety scores (46%), depression scores (63.70%) and perceived stress levels (49%) respectively, comparing the values at the end of the intervention with the values at the beginning showed statistically significant reduction in all the variables measured ($p<0.00$). The groups mean values $\pm$ S.D. are given in Table 1.

Table 1: Variables recorded at the beginning (Initial) and end (Final) of the 8 weeks Yoga intervention are provided. Values (group mean $\pm$ S.D.) for the psychological variables.

Yoga intervention	Anxiety		Depression		Perceived stress scale	
	Before yoga	After yoga	Before yoga	After yoga	Before yoga	After yoga
Mean	17.4	9.4	13.8	5	22.2	11.4
Standard deviation	16.88	4.16	3.03	3.08	6.8	5.46
Standard error	3.08	1.86	1.36	1.38	3.04	2.44
% change	46%		63.70%		49%	
p-value	***0.006		***0.000		***0.000	

*significant at $P<0.05$, ** significant at $P<0.01$, ***significant at $P<0.00$ (Wilcoxon Signed Ranks Test)

DISCUSSION

The descriptive of perceived stress, depression and anxiety showed 46%, 63.70% and 49% reduction, respectively, after CM. Since the special educator's job is highly demanding in nature, they tend to be stressed, anxious and depressed. The beneficial effect of the CM in uncoiling the distress and reducing anxiety, depression levels in special educators that too within a short period of time may be considered as an important contribution of this study. Stress reduction and anxiolytic effect of CM are supported by the previous evidences that guided relaxation practice shows positive changes in heart rate variability by reducing the low frequency(LF) spectrum and increasing the high frequency(HF) component.[10] another study showed that Isometric relaxation technique practice showed a reduction in the physiological signs of anxiety and stress.[11] another study showed parasympathetic dominance after the practice of CM this effect would be due to the reduced cortical activity, which in turn may modify the activity at the level of the hypothalamus. [18] Similar study found that a short-term CM program decreased occupational stress levels and baseline autonomic arousal,[9] suggesting the decrease in occupational stress levels may be related to decreased autonomic arousal (sympathetic activation) as well as psychological factors. increased proprioceptive input (during the practice of asanas) to the Reticular Activating System (RAS), which in turn keeps cortical areas receptive and active.[12] this may also have helped in reducing depressive symptoms. Functional studies have shown an increased

metabolism or activation of limbic regions in depression, [19] Evidence suggests that Om sound significantly impacts deactivation of limbic system and anterior cingulate.[13] this supports antidepressant effect caused by OM chanting in our study, also the practice of CM shown improve the quality of sleep by increasing the percentage of slow wave sleep in the night,[20] this intern enhances psychological wellbeing. This pilot study is the first of its kind to conclude that CM can act as an essential feasible, cost effective therapy for psychological wellbeing in special educators. A major constraint of the study is the small sample size and lack of an active control group. It would have been valuable to include psychophysiological variables to throw light on the mechanisms. Despite of the limitations, significant results were manifested in a short time suggesting CM could be a safe, non-pharmacological and low-cost alternative for the management of stress, anxiety and depression levels in special educators. In addition, the findings of this study may also provide an evidence supporting the incorporation of CM into standardized caregiver's wellness programs as a practical adjunct to improve the overall quality of life.

CONCLUSION

In conclusion, the findings of this study provide preliminary evidence for the benefits of CM practice in reducing stress, depression and anxiety in special educators of individuals with unique emotional, cognitive and behavioural needs. This study is the first pilot study to show that CM with this population is feasible and efficacious over time. Our findings lay the groundwork for future research to replicate and extend these findings with measures. Positive outcomes from this line of research would have significant implications for a new generation of integrated wellness programs to enhance the wellbeing of parents and educators of special needs individuals.

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