



Effect of Cyclic Meditation on Psychological Well-being and Emotional Maturity among School-going Adolescents: An Experimental Study

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Abstract

Background: In the present time, mental stress and emotional instability among school-going adolescents are rapidly increasing due to academic pressure, career concerns, and social changes. Cyclic Meditation (CM) is a well-established technique, which reduces day-to-day stress among adolescents. Recent researches indicate how effectively cyclic meditation improves overall well-being and emotional regulation for different populations. So, it may be helpful for the adolescents, whom are currently facing different issues due to lifestyle changes and day-to-day stress.

Objective: The primary aim of the present research is to evaluate the effectiveness of Cyclic Meditation (CM) in enhancing the Psychological Well-being and Emotional Maturity of school-going adolescents.

Method: For this study, a Pre-test Post-test Control Group Design was employed under a Randomized Controlled Trial (RCT) methodology. A total of 60 adolescents, of age range 13-18 years were recruited, who fulfilled the inclusion and exclusion criteria. Then they were divided into two groups: an Intervention Group (n=30) and a Control Group (n=30). The Intervention Group practiced Cyclic Meditation for 45 minutes daily for 3 weeks, while the Control Group continued with its normal routine.

Results: For data collection, Carol Ryff's Psychological Well-being Scale and Singh and Bhargava's Emotional Maturity Scale (EMS) were used. Statistical analysis of the obtained data using the independent t-test revealed that after only 3 weeks of Cyclic Meditation practice, there was a significant increase in the Psychological Well-being of the Intervention Group ($p < 0.01$), along with a substantial reduction in emotional instability ($p < 0.01$), indicating higher Emotional Maturity. In contrast, no significant change was observed in the Control Group.

Conclusion: It is concluded that incorporating short-term Cyclic Meditation sessions into the school curriculum is highly beneficial and practical for the overall mental, psychological, and emotional development of adolescents.

Keywords: Cyclic Meditation, Psychological Well-being (Ryff's Scale), Emotional Maturity (EMS).

I. Introduction

Adolescence is a highly important, transitional, and sensitive stage of the human life cycle. According to the World Health Organization (WHO), the age group of 10 to 19 years is considered adolescence. During this stage, an individual is neither completely a child nor yet categorized as an adult.

The age group of 13 to 18 years is particularly the period of secondary and higher-secondary education, during which adolescents undergo rapid physical changes (pubertal changes), cognitive development, and unprecedented social expectations. The renowned psychologist Stanley Hall described this stage as the “**Period of Storm and Stress.**”

In the modern era, the excessive use of digital gadgets, intense academic competition, career concerns, and peer pressure have had serious adverse effects on the mental health of school-going adolescents. As a result, imbalances are being observed in their Psychological Well-being and Emotional Maturity.

Psychological Well-being is not merely the absence of mental illness; rather, it is an indicator of positivity, meaning, and self-actualization in an individual's life. According to Carol Ryff, Psychological Well-being has six major dimensions:

1. Self-acceptance
2. Purpose in Life
3. Personal Growth
4. Positive Relations

5. Environmental Mastery
6. Autonomy

When an adolescent performs positively across these dimensions, their academic and social competence improves.

In parallel, Emotional Maturity is the ability through which an individual controls, expresses, and manages emotions according to circumstances. According to Singh and Bhargava, emotional instability, emotional regression, social maladjustment, and disintegration of personality are signs of immaturity. A lack of impulse control among adolescents often affects their personal and academic lives. Against this background, there is an increasing need for interventions based on Yogic Science and Meditation as alternatives to traditional mental-health treatments. One study done by Verma (2023) clearly demonstrated that yogic practices promote emotional stability and self-regulation among adolescents.

Cyclic Meditation (CM) is a modern, scientific, and evidence-based yogic technique developed by the Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA), based on the principles of the Mandukya Upanishad. The fundamental philosophy of this technique operates through a cyclic sequence of **“Stimulation” and “Relaxation.”** It creates awareness in the body through physical movements involving simple asanas such as Tadasana, Ardha Chakrasana, and Padahasthasana, immediately followed by deep relaxation of the mind through Shavasana using Deep Relaxation Technique (Nagendra & Nagarathna, 2006).

In most traditional meditation techniques, an attempt is made to directly concentrate the mind, which can be difficult for restless and highly active adolescents aged 13–18 years. In contrast, Cyclic Meditation gradually leads the mind toward stability through physical activities. Research done by Sharma and Verma (2021), indicates that Cyclic Meditation is highly effective in reducing cortisol (the stress hormone) levels and enhancing cognitive abilities among school-going children. The cyclic sequence of stimulation and relaxation helps balance the autonomic nervous system (Telles et al., 2000). According to Subramanyam and Telles (2019), short-term effects of Cyclic Meditation among adolescents resulted in rapid positive improvements in their psychological state and a significant reduction in anxiety levels.

However, there is still a scarcity of research which shows how cyclic meditation effectively show its impact on overall well-being and emotional maturity of adolescents. Also, there is scarcity of studies has among Hindi-medium school-going adolescents using Carol Ryff's comprehensive six dimensions and the specific emotional maturity criteria of Singh and Bhargava. So, therefore this research will create a good database for further research ideas and will effectively comment on effectiveness of Cyclic Meditation.

II. Materials and Methods

The present study employed a Pre-test Post-test Randomized Control Group Design. Using a random method, a total of 60 school-going adolescents (N=60), were selected from secondary schools those who fulfilled the inclusion criteria of: age range 13-18 years, given their written assent, whose parents given their consent, students scored ≥ 3 on GHQ, comprehends Hindi and English, and willing to participate. Adolescents excluded based on criteria of: history of any physical, neurological and psychiatric illness in family, and history of involvement in any yogic practices in 6-month period. Adolescents were divided into two groups randomly including Intervention Group (n=30) which received intervention including 45 min of cyclic meditation for 3-weeks and Control Group (n=30) who followed their normal routine at school.

Psychometric Tools

- **General Health Questionnaire (GHQ-12)**- In 1972, David Goldberg created a 12-item version to identify distress or issues among adolescents. Scoring followed the 0-0-1-1 method, with a cut-off of 3; adolescents below threshold were included. (Gautam, Nijhawan, & Kamal, 1987).
- **Ryff's Psychological Well-being Scale**-The 42-item version of the scale was used. It evaluates dimensions such as autonomy, purpose in life, personal growth, and self-acceptance. A higher score indicates better well-being (Bhargava & Khanna, 2018; Ryff, 1989).
- **Emotional Maturity Scale (EMS) by Singh & Bhargava**-This scale measures emotional instability, social maladjustment, and personality disintegration. On this scale, a lower score indicates higher Emotional Maturity (Singh & Bhargava, 1990).

Intervention Procedure

The Experimental Group received a 45-minute Cyclic Meditation session daily for 3 weeks according to the prescribed protocol. The extended session duration of 45 minutes allowed participants to experience both the stimulation and deep relaxation phases more profoundly. The session primarily consisted of four stages:

1. Prayer and Resolution – 3 minutes: The initial stage for physical and mental concentration.

2. Physical Stimulation – 12 minutes: Slow and mindful movements involving Tadasana, Ardha Chakrasana, and Padahasthasana.

3. Deep Relaxation Technique (DRT) – 25 minutes: Complete physical relaxation and mental awareness in Shavasana.

4. Peace Chant – 5 minutes: Practiced at the conclusion of the session to maintain mental stability.

III. Result

The data were analysed using SPSS v 26 version. The statistical measures including Mean, Standard Deviation (SD), and the independent t-test were employed. The level of statistical significance was set at $p < 0.05$. The analysis of results clearly showed that after 3 weeks of Cyclic Meditation (45-minute sessions), there was a significant increase in the mean Psychological Well-being score of the Intervention Group, from 142.10 to 158.40. The obtained t-value of 6.20, $df=58$, $p\text{-value} < 0.001$, is statistically highly significant at the $p < 0.05$ level. In contrast, no significant change was observed in the mean score 141.50 to 142.10 of control group. The obtained t-value of 0.21 is not significant with $p\text{-value} 0.834$ and $df=58$. On the other hand, the Emotional Maturity (EMS) score of the Intervention Group decreased significantly from 118.60 to 101.20. Since a lower score on this tool indicates greater emotional stability and higher maturity. The obtained t-value of 5.49, $p\text{-value} < 0.001$, $df=58$ which was statistically significant at $p < 0.05$, demonstrates that emotional instability among the students decreased following the intervention. However, no significant change was found mean score from 117.90 to 118.30 in the Control Group with t-value = 0.20, $df=58$ and $p\text{-value}=0.839$.

Table 1: Comparative Analysis of the Experimental and Control Groups on Ryff's Psychological Well-being Scale (N=60)

Phase	Experimental Group (n=30) Mean $\pm$ SD	Control Group (n=30) Mean $\pm$ SD	t	df	p
Pre-intervention	142.10 $\pm$ 11.20	141.50 $\pm$ 11.05	0.21	58	0.834
Post-intervention	158.40 $\pm$ 9.40	142.10 $\pm$ 10.90	6.20	58	< 0.001**

Note. Independent-samples t-test; $p < 0.05$ considered statistically significant; ** $p < 0.001$.

Table 2: Comparative Analysis of the Experimental and Control Groups on the Emotional Maturity Scale (EMS) (N=60)

Phase	Experimental Group (n=30) Mean $\pm$ SD	Control Group (n=30) Mean $\pm$ SD	t	df	p
Pre-intervention	118.60 $\pm$ 13.50	117.90 $\pm$ 13.10	0.20	58	0.839
Post-intervention	101.20 $\pm$ 11.10	118.30 $\pm$ 12.95	5.49	58	< 0.001**

Note. Independent-samples t-test; $p < 0.05$ considered statistically significant; ** $p < 0.001$.

IV. Discussion

The results of the present research were highly significant from the perspective that they strongly demonstrate the effectiveness of a short-term intervention (3-week short-term intervention). There was statistically significant improvement was observed in psychological well-being score of adolescents. Also, there was significant improvement reported in emotional maturity of adolescents. These changes signify the importance of cyclic meditation in day-to-day functioning and these findings were supported by different studies.

It was generally believed that changes in behaviour and emotional functioning require long-term practice. However, the intensive scientific process of “**Stimulation and Relaxation**” in Cyclic Meditation produces rapid effects on the central nervous system of adolescents aged 13 to 18 years. In particular, the extended 45-minute sessions provided adolescents with an opportunity to remain in a state of deep relaxation for a longer period during Shavasana (DRT). When Deep Relaxation (DRT) is practiced immediately after the stretching involved in physical postures, the body's parasympathetic nervous system becomes activated. This reduces the stress hormone cortisol and increases alpha waves in the brain (Subramanyam & Telles, 2019; Verma & Sharma 2021). This process activates the prefrontal cortex of adolescents, thereby promoting impulse control and emotional stability (Caballero et al. 2016; Sebastian et al. 2015). Cyclic meditation proves as significant techniques to improves mental health and well-being effectively (Sharma, 2022). The positive improvement across the dimensions of Ryff's Psychological Well-Being Scale suggests an enhancement in adolescents' psychological well-being (Ryff, 2014), particularly in their sense of self-acceptance and autonomy (Galla, 2016; Telles et al., 2010). It is indicated that sequential practice of cyclic meditation also helps to improves emotional maturity and enhances emotional stability of adolescents, which supports the overall growth of adolescents (Verma, 2023).

Limitations

The study was carried out among specific sample of school going adolescents, which may limit the generalization of the findings from current research. Also, relatively limited intervention and absence of follow-up periods restrict conclusion regarding the sustainability of Cyclic Meditation in long term. Additionally, reliance

on self-report measures may have introduced response bias. Other factors, including family environment, lifestyle and social support, may also have influenced the results in present study.

Implications and Future Directions

The findings of the present research open new avenues for future researchers, educators, and policymakers. Future studies may consider the following directions:

1. **Long-term Follow-up:** This study measured only the immediate effects after 3 weeks. Future research should investigate whether these positive effects on adolescents' mental resilience continue to remain after 3 or 6 months following completion of the intervention.
2. **Inclusion of Biological Markers:** Future studies may combine psychological scales with biological indicators such as salivary cortisol levels, Heart Rate Variability (HRV), and brain-wave measurements (EEG) to establish greater scientific precision regarding the effects of the intervention.
3. **Comparative Analysis:** The effectiveness of Cyclic Meditation may be compared with other traditional meditation methods, such as **Mindfulness or Vipassana**, to determine which approach is more effective for restless adolescents.
4. **Larger Sample Size:** In future, the intervention may be tested among larger groups of students from government and private schools across different geographical and cultural regions of the country so that the findings can be generalized more broadly.

V. Conclusion

Based on the findings of this study, it can be stated that even 45 minutes of daily Cyclic Meditation practice for a short period of 3 weeks can bring remarkable improvements in the mental and emotional functioning of school-going adolescents. Cyclic Meditation proves as effective technique to be included in day-to-day practice by adolescents to reduce mental fatigue, to improve health and overall well-being. This practice is a safe, evidence-based, and scientific means of enhancing adolescents' Psychological Well-being and reducing their emotional instability, thereby helping them become emotionally mature. This research provides educators and school administrators with a practical 3-week model that can be easily incorporated into the school's daily schedule to help reduce examination-related stress.

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