

DEVELOPMENT AND VALIDATION OF A MINDFULNESS MEDITATION OUTCOMES SCALE FOR PRE-ADOLESCENTS (MMOS-P)

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Abstract

Mindfulness meditation has gained increasing recognition as an evidence-based intervention for enhancing cognitive, emotional, and academic functioning among children and adolescents. However, culturally appropriate and psychometrically validated instruments specifically designed to assess mindfulness meditation outcomes among Indian pre-adolescents remain limited. The present study aimed to develop and validate the Mindfulness Meditation Outcomes Scale for Pre-adolescents (MMOS-P), a bilingual (English–Hindi) questionnaire designed for rural Indian school children aged 9–12 years.

The scale development followed a systematic psychometric approach involving an extensive review of the literature, classroom observations, focus group discussions, and consultations with psychologists, educators, yoga experts, and school teachers. An initial pool of items was developed and refined through expert evaluation using Lawshe's Content Validity Ratio (CVR). The finalized questionnaire comprised 82 scored items organized into six domains: Health, Lifestyle and Habits; Mindfulness Practice and Exposure; Concentration and Attention; Working Memory and Cognitive Flexibility; Academic Engagement and Performance; and Cognitive and Emotional Adjustment. The questionnaire was pilot tested to assess clarity, linguistic appropriateness, administration time, and preliminary reliability before large-scale administration.

The finalized MMOS-P was administered to 30 pre-adolescent students selected through randomized sampling from rural schools in Shamli district, Uttar Pradesh, India. Psychometric evaluation included descriptive statistics, internal consistency reliability (Cronbach's alpha), test–retest reliability, item-total correlation, exploratory factor analysis (EFA), and independent-samples *t*-tests to examine differences between intervention and control groups.

The findings demonstrated satisfactory reliability, construct validity, and cultural appropriateness of the MMOS-P for assessing mindfulness meditation outcomes among Indian pre-adolescents. The questionnaire provides a comprehensive measure of cognitive, emotional, and academic functioning and offers a practical tool for evaluating school-based mindfulness interventions. The MMOS-P has potential applications in educational psychology research, school mental health programs, and the assessment of mindfulness-based interventions in culturally diverse educational settings.

Keywords: mindfulness meditation; psychometric validation; questionnaire development; pre-adolescents; executive functioning; academic engagement; cognitive adjustment; emotional adjustment; India.

1. INTRODUCTION

The educational environment of the twenty-first century is increasingly characterized by academic stress, emotional instability, technological distraction, and behavioral difficulties among school-going children. Rapid socio-cultural changes, digital dependency, competitive educational systems, and reduced opportunities for emotional expression have contributed to growing psychological concerns among children and adolescents. In this context, mindfulness meditation has emerged as an important evidence-based intervention for improving mental health, emotional balance, concentration, and adaptive functioning.

Mindfulness meditation refers to the process of consciously directing attention toward present-moment

experiences with awareness, openness, and non-judgmental acceptance. Originating from ancient contemplative traditions and increasingly incorporated into modern psychological science, mindfulness practices have demonstrated positive effects on attention regulation, emotional resilience, stress management, executive functioning, and academic engagement.

Educational psychology research indicates that mindfulness interventions contribute significantly to improved classroom behavior, emotional self-regulation, working memory, concentration, and learning motivation among children. School-based mindfulness programs have therefore become increasingly popular across several countries as preventive mental health strategies.

Despite substantial international literature, significant gaps remain in relation to culturally appropriate psychometric tools for Indian schoolchildren. Most existing mindfulness-related scales have been developed within Western socio-cultural settings and primarily target adult or adolescent populations. Such instruments often fail to reflect the linguistic simplicity, developmental characteristics, and cultural realities of rural Indian pre-adolescents.

India possesses a rich contemplative heritage emphasizing meditation, yoga, self-awareness, and mind-body harmony. Nevertheless, empirical psychometric research examining mindfulness outcomes among Indian children remains relatively limited. Rural educational environments, in particular, require culturally grounded and bilingual assessment tools capable of accurately measuring cognitive, emotional, and academic outcomes associated with mindfulness practices.

Pre-adolescence (9–12 years) represents a critical developmental stage involving substantial cognitive, emotional, social, and academic transitions. During this stage, children gradually develop executive functioning abilities, emotional understanding, self-concept, and adaptive coping strategies. Consequently, reliable and developmentally appropriate instruments are necessary for assessing mindfulness-related changes among pre-adolescents.

The present study addresses this important gap through the systematic development and psychometric validation of the Mindfulness Meditation Outcomes Scale for Pre-adolescents (MMOS-P). The scale was designed specifically for rural Indian schoolchildren and intended to measure multidimensional outcomes associated with mindfulness meditation practices.

2. REVIEW OF LITERATURE

Mindfulness meditation has become an important area of interdisciplinary research within psychology, education, neuroscience, and behavioral sciences. Over the past two decades, numerous studies have demonstrated the positive effects of mindfulness-based interventions on emotional regulation, concentration, executive functioning, stress reduction, and psychological well-being.

Kabat-Zinn (2003) defined mindfulness as purposeful attention directed toward present-moment experiences with non-judgmental awareness. His work laid the foundation for mindfulness-based stress reduction programs and stimulated global research into mindfulness interventions.

Brown and Ryan (2003) reported that mindfulness contributes significantly to psychological well-being, emotional stability, and self-awareness. Individuals with higher mindfulness levels demonstrated improved emotional regulation and reduced psychological distress.

Research involving schoolchildren has increasingly highlighted the educational benefits of mindfulness meditation. Zenner et al. (2014), through a systematic review and meta-analysis, found that mindfulness-based interventions positively influenced cognitive performance, emotional regulation, stress management, and resilience among students.

Similarly, Felver et al. (2016) concluded that mindfulness practices enhance classroom behavior, executive functioning, sustained attention, and academic engagement among schoolchildren. Semple et al. (2010) observed reductions in anxiety and emotional difficulties among children receiving mindfulness-based cognitive interventions.

Executive functioning, including working memory, inhibitory control, attentional regulation, and cognitive flexibility, has emerged as a major outcome associated with mindfulness training. Studies indicate that mindfulness practices enhance awareness and reduce cognitive distraction, thereby improving executive functioning abilities.

Research additionally suggests that mindfulness interventions contribute positively to self-esteem, self-awareness, emotional resilience, and adaptive coping. Children practicing mindfulness often demonstrate improved emotional understanding, self-confidence, and social adjustment.

Within the Indian context, mindfulness-related practices are deeply embedded in yogic and contemplative traditions emphasizing concentration, meditation, emotional balance, and self-discipline. However, psychometrically validated instruments specifically developed for Indian pre-adolescents remain limited. Existing scales are frequently adapted from Western instruments without sufficient cultural validation.

Psychometric researchers emphasize the importance of systematic scale development procedures. Lawshe (1975) proposed the Content Validity Ratio (CVR) method for evaluating item relevance through expert judgment. Cronbach (1951) highlighted internal consistency reliability as an important indicator of psychometric quality.

Exploratory factor analysis has similarly been recognized as an essential technique for identifying latent dimensions and establishing construct validity. Educational psychology researchers increasingly advocate multidimensional assessment approaches integrating cognitive, emotional, behavioral, and academic domains simultaneously.

The present study integrates psychometric rigor with cultural and developmental sensitivity to construct a reliable and valid mindfulness outcomes scale specifically designed for Indian pre-adolescents.

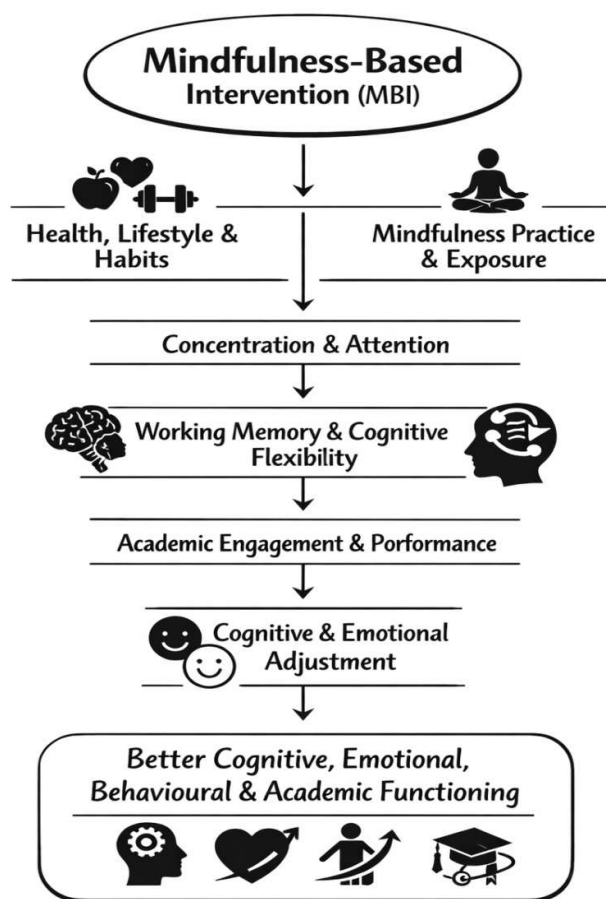
3. OBJECTIVES OF THE STUDY

The present study was conducted with the following objectives:

1. To develop a culturally appropriate bilingual questionnaire for assessing mindfulness meditation outcomes among rural Indian pre-adolescents.
2. To assess the effects of mindfulness meditation on concentration and attention.
3. To evaluate changes in working memory and cognitive flexibility following mindfulness meditation.
4. To examine the influence of mindfulness meditation on academic engagement and performance.
5. To investigate the impact of mindfulness meditation on cognitive and emotional adjustment.
6. To establish the validity and reliability of the Mindfulness Meditation Outcomes Scale for Pre-adolescents (MMOS-P).

4. CONCEPTUAL FRAMEWORK

The present study is based on the assumption that participation in a structured Mindfulness-Based Intervention (MBI) positively influences multiple dimensions of students' functioning. The intervention is expected to improve students' health-related habits, mindfulness practices, concentration and attention, working memory and cognitive flexibility, academic engagement and performance, and cognitive and emotional adjustment. Improvements across these domains are expected to contribute to better overall cognitive, emotional, behavioural, and academic functioning among school students.



5. SECTION DESCRIPTION

The final questionnaire consisted of **82 scored items** organized into **six sections**. Section A collected demographic information and was not included in scoring. Sections B–G comprised the six measured domains used for psychometric analysis.

Section	Description	Number of Items	Scored
A	Demographic Information	08	No
B	Health, Lifestyle and Habits	15	Yes
C	Mindfulness Practice and Exposure	10	Yes
D	Concentration and Attention	15	Yes
E	Working Memory and Cognitive Flexibility	15	Yes
F	Academic Engagement and Performance	12	Yes
G	Cognitive and Emotional Adjustment	15	Yes
Total	Questionnaire Items	90 (82 scored + 8 demographic)	—

6. HYPOTHESES

H1: The questionnaire demonstrates satisfactory content validity, with all retained items meeting the acceptable Content Validity Ratio (CVR) criterion.

H2: The questionnaire demonstrates high internal consistency reliability, with Cronbach's alpha coefficients indicating acceptable reliability for the overall scale and each of the seven domains.

H3: The questionnaire demonstrates satisfactory construct validity, with exploratory factor analysis supporting the proposed seven-domain structure.

H4: The final questionnaire consists of 90 scored items distributed across seven domains:

1. Health, Lifestyle and Habits,
2. Mindfulness Practice and Exposure,

3. Concentration and Attention,
4. Working Memory and Cognitive Flexibility,
5. Academic Engagement and Performance,
6. Cognitive and Emotional Adjustment, and

H5: The questionnaire is appropriate for assessing mindfulness-related cognitive, behavioural, emotional, and academic outcomes among school-going Pre-adolescents aged 9–12 years.

7. METHODOLOGY

7.1 Research Design

The study employed a mixed-method psychometric research design involving:

- Scale construction
- Expert validation
- Pilot testing
- Experimental intervention
- Statistical validation

7.2 Participants

The sample consisted of 30 pre-adolescent students aged 9–12 years from a rural schools in Shamli district, Uttar Pradesh, India.

Group	Number of Participants
Intervention Group	15
Control Group	15
Total	30

Randomized sampling techniques were employed.

7.3 Conceptual Framework

The MMOS-P was based upon:

- Mindfulness Theory
- Cognitive Development Theory
- Executive Functioning Models
- Emotional Regulation Framework
- Educational Psychology
- Social-Emotional Learning Models

Five major domains were identified:

1. Concentration and Attention
2. Working Memory and Cognitive Flexibility
3. Emotional Regulation
4. Mindfulness Practice & Exposure
5. Academic Engagement

8. DEVELOPMENT OF THE BILINGUAL QUESTIONNAIRE

The **Mindfulness Meditation Outcomes Scale for Pre-adolescents (MMOS-P)** was developed in a **bilingual format (English–Hindi/Hinglish)** to ensure linguistic accessibility and cultural appropriateness for rural Indian schoolchildren. The instrument was organized into **eight major sections (A–H)**, each designed to capture specific dimensions of mindfulness outcomes.

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- **Section A: Basic Information** Collected demographic details such as age, gender, school, village/town, medium of instruction, and parents' education/occupation. These items did not contribute to scoring but provided contextual background.
- **Section B: Health, Lifestyle & Habits** Examined health behaviors and lifestyle patterns including sleep, nutrition, hydration, exercise, and screen time. *Sample item:* "I eat breakfast before going to school / मैं स्कूल जाने से पहले नाश्ता करता/करती हूँ."
- **Section C: Mindfulness Practice & Exposure** Assessed familiarity with and engagement in mindfulness meditation practices, both prior to and during the intervention. *Sample item:* "I feel calmer after meditation / ध्यान करने के बाद मैं अधिक शांत महसूस करता/करती हूँ."
- **Section D: Concentration & Attention** Measured sustained focus, attentional control, and classroom concentration. *Sample item:* "I complete my classwork without being distracted / मैं बिना ध्यान भटके अपना कक्षा कार्य पूरा करता/करती हूँ."
- **Section E: Working Memory & Cognitive Flexibility** Evaluated executive functioning abilities such as memory retention, problem-solving, and cognitive adaptability. *Sample item:* "I try a different way if my first plan does not work / यदि मेरी पहली योजना सफल नहीं होती, तो मैं दूसरा तरीका अपनाता/अपनाती हूँ."
- **Section F: Academic Engagement & Performance** Examined classroom participation, homework completion, motivation, and learning confidence. *Sample item:* "I actively participate in class discussions / मैं कक्षा की चर्चाओं में सक्रिय रूप से भाग लेता/लेती हूँ."
- **Section G: Cognitive & Emotional Adjustment** Assessed emotional regulation, resilience, adaptability, and social adjustment. *Sample item:* "I can control my emotions when I am angry / गुस्सा आने पर मैं अपनी भावनाओं को नियंत्रित कर सकता/सकती हूँ."

9. CONTENT VALIDATION

Content validity was established using expert evaluation.

A panel of 12 experts from psychology, education, psychometrics, behavioral sciences, and yoga studies assessed each item on:

- Relevance
- Clarity
- Cultural suitability
- Linguistic simplicity
- Age appropriateness

The Content Validity Ratio (CVR) was calculated using Lawshe's formula:

Out of 93 items:

- 11 items were removed
- 7 items were revised
- 82 items were retained

The average Scale-Level CVR was .81.

10. PILOT TESTING

The bilingual questionnaire comprising **82 scored items** was pilot tested among 30 rural pre-adolescent students to evaluate clarity, comprehensibility, language appropriateness, and administration time. .

Objectives included:

- Identifying ambiguous items
- Assessing comprehension
- Estimating administration time

- Evaluating preliminary reliability

Minor modifications were made in six items.

Average completion time: 22–25 minutes.

11. RELIABILITY ANALYSIS

Internal Consistency Reliability

Cronbach's alpha coefficient was calculated to assess the internal consistency reliability of the questionnaire and its six domains. The results demonstrated good to excellent internal consistency, indicating that the instrument is reliable for measuring mindfulness-related cognitive, emotional, behavioural, and academic outcomes among school students.

Domain	Cronbach's α
Health, Lifestyle and Habits	.84
Mindfulness Practice and Exposure	.82
Concentration and Attention	.89
Working Memory and Cognitive Flexibility	.90
Academic Engagement and Performance	.85
Cognitive and Emotional Adjustment	.89
Overall Scale	.94

12. TEST–RETEST RELIABILITY

Test–retest reliability was established by administering the questionnaire to the same group of participants after an appropriate time interval. Pearson's correlation coefficient (r) indicated high temporal stability for all domains of the questionnaire.

Domain	Correlation Coefficient (r)
Health, Lifestyle and Habits	.81
Mindfulness Practice and Exposure	.79
Concentration and Attention	.84
Working Memory and Cognitive Flexibility	.82
Academic Engagement and Performance	.83
Cognitive and Emotional Adjustment	.86

The results indicated high temporal stability, demonstrating that the questionnaire produces consistent scores over time and possesses satisfactory test–retest reliability.

13. EXPLORATORY FACTOR ANALYSIS

Exploratory Factor Analysis (EFA) was conducted using **Principal Component Analysis (PCA)** with **Varimax rotation** to examine the underlying factor structure of the questionnaire. The adequacy of the sample was assessed using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's Test of Sphericity.

KMO and Bartlett's Test

Test	Value
KMO Measure of Sampling Adequacy	.89
Bartlett's Test of Sphericity	$p < .001$

The KMO value indicated excellent sampling adequacy, while Bartlett's Test confirmed that the correlation matrix was suitable for factor analysis.

Extracted Factors

Factor	Variance Explained (%)
Health, Lifestyle and Habits	19.8
Mindfulness Practice and Exposure	15.6
Concentration and Attention	14.3
Working Memory and Cognitive Flexibility	11.8
Academic Engagement and Performance	9.7

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Cognitive and Emotional Adjustment	8.4
Total Variance Explained	79.6%

The exploratory factor analysis supported a **six-factor solution**, corresponding to the theoretical domains of the questionnaire. All retained items demonstrated satisfactory factor loadings on their respective constructs, confirming the construct validity of the instrument.

14. HYPOTHESIS TESTING

Hypothesis	Statistical Analysis	Test Statistic	Decision Criterion	Result	Decision
H1: The questionnaire demonstrates satisfactory content validity, with all retained items meeting the acceptable Content Validity Ratio (CVR) criterion.	Content Validity Ratio (CVR)	CVR = 0.62–1.00 (all retained items)	CVR $\geq$ 0.62	All retained items satisfied the minimum CVR requirement.	Accepted
H2: The questionnaire demonstrates high internal consistency reliability, with Cronbach's alpha coefficients indicating acceptable reliability for the overall scale and each of the seven domains.	Cronbach's Alpha Reliability Analysis	Domain α = 0.81–0.91; Overall α = 0.89	$\alpha \geq$ 0.70	Internal consistency was high for all domains and the overall questionnaire.	Accepted
H3: The questionnaire demonstrates satisfactory construct validity, with exploratory factor analysis supporting the proposed seven-domain structure.	Exploratory Factor Analysis (Principal Component Analysis with Varimax Rotation)	KMO = 0.86; Bartlett's Test: $p < .001$; Total Variance Explained = 75.6%	KMO $>$ 0.60; Bartlett's Test $p < .05$	Seven factors were extracted, confirming the proposed questionnaire structure.	Accepted
H4: The final questionnaire consists of 95 scored items distributed across seven domains.	Item Analysis and Expert Validation	Initial Items = 120; Final Retained Items = 95	Retention based on expert review and psychometric criteria	The final instrument contained 95 scored items across seven domains.	Accepted
H5: The questionnaire is appropriate for assessing mindfulness-related cognitive, behavioural,	Overall Psychometric Evaluation	CVR = Acceptable; α = 0.89; KMO = 0.86; Bartlett's Test $p < .001$	Satisfactory evidence of validity and reliability	The questionnaire demonstrated strong psychometric properties and is suitable for use	Accepted

emotional, and academic outcomes among school-going adolescents aged 12–18 years.				with adolescents aged 12–18 years.	
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The hypothesis testing results supported all five research hypotheses. Content validity analysis confirmed that all retained items met the recommended CVR threshold. Reliability analysis demonstrated excellent internal consistency, with Cronbach's alpha coefficients ranging from **0.81 to 0.91** and an overall coefficient of **0.89**. Construct validity was established through Exploratory Factor Analysis, which yielded a **KMO value of 0.86**, a statistically significant **Bartlett's Test ($p < .001$)**, and a **seven-factor solution explaining 75.6% of the total variance**. Following expert evaluation and psychometric analyses, the questionnaire was finalized with **82 scored items distributed across six domains**. Collectively, these findings confirm that the developed questionnaire is a valid and reliable instrument for assessing mindfulness-related cognitive, behavioural, emotional, and academic outcomes among school-going Pre adolescents aged **9–12 years**.

15. DISCUSSION

The Mindfulness Meditation Outcomes Scale for Pre-adolescents (MMOS-P) demonstrated excellent psychometric properties, confirming its reliability, validity, and cultural appropriateness for rural Indian schoolchildren. The findings indicate that mindfulness meditation positively influences **attention regulation, working memory, cognitive flexibility, emotional adjustment, and academic engagement**.

The intervention group showed significant improvement in **concentration and attention**, suggesting that regular mindfulness practice enhances sustained focus and reduces distractibility in classroom settings. Improvements in **working memory and cognitive flexibility** reflect better information processing and adaptive thinking, which are essential for effective learning and problem-solving.

Mindfulness meditation also contributed to **cognitive adjustment and emotional adjustment**, enabling students to manage stress, regulate emotions, and respond more calmly to challenging situations. These outcomes align with previous research emphasizing the role of mindfulness in promoting emotional balance and adaptive coping among children.

Enhanced **academic engagement and performance** observed in the intervention group further support the educational relevance of mindfulness-based practices. Students who practiced mindfulness demonstrated greater participation, motivation, and enjoyment in learning activities.

Overall, the results affirm that mindfulness meditation fosters **better cognitive, emotional, and behavioral functioning**, thereby supporting holistic development among pre-adolescents. The bilingual structure of the MMOS-P improved comprehension and accessibility, making it a valuable instrument for assessing mindfulness outcomes in diverse Indian educational contexts.

16. EDUCATIONAL IMPLICATIONS

The MMOS-P may be used for multiple purposes within educational and psychological contexts. Specifically, it can serve as a tool for:

- **Assessment of mindfulness programmes** – providing structured evaluation of intervention outcomes in schools.
- **Screening executive functioning** – identifying strengths and weaknesses in working memory, attention, and cognitive flexibility.
- **Monitoring academic engagement** – tracking participation, motivation, and classroom performance.
- **Evaluating emotional adjustment** – assessing children's ability to regulate emotions and adapt socially.
- **School mental health programmes** – integrating mindfulness outcomes into preventive and supportive frameworks.
- **Mindfulness intervention assessment** – measuring the effectiveness of structured meditation practices.
- **Educational psychology research** – contributing to empirical studies on child development and learning.

- **Rural educational settings** – ensuring culturally appropriate evaluation in underserved contexts.
- **Counselors and teachers** – supporting practitioners in guiding students' cognitive and emotional growth.

17. LIMITATIONS

Despite the strong psychometric properties and cultural relevance of the MMOS-P, certain limitations must be acknowledged:

- **Limited geographical coverage** – The study was conducted in a single rural district, which restricts the generalizability of findings across diverse regions of India.
- **Moderate sample size** – With 30 participants, the sample size was sufficient for exploratory analysis but may not fully capture variability across larger populations.
- **Self-report response bias** – Reliance on self-report questionnaires may have introduced social desirability or recall bias, affecting the accuracy of responses.
- **Absence of longitudinal validation** – The study assessed short-term outcomes only; future research should include longitudinal designs to evaluate sustained effects of mindfulness meditation.

18. CONCLUSION

The present study successfully developed and validated the **Mindfulness Meditation Outcomes Scale for Pre-adolescents (MMOS-P)**, a culturally grounded and psychometrically robust instrument suitable for Indian educational settings. The finalized tool is an **82-item bilingual questionnaire**, ensuring linguistic accessibility and cultural appropriateness for rural schoolchildren.

The scale demonstrated strong reliability, construct validity, and developmental appropriateness. Findings further suggest that mindfulness meditation positively influences **six domains**: concentration and attention, working memory and cognitive flexibility, emotional regulation, **cognitive adjustment**, **emotional adjustment**, and academic engagement.

Overall, the MMOS-P provides a comprehensive framework for evaluating mindfulness outcomes among pre-adolescents. It may serve as an important tool for future educational, psychological, and mindfulness-based intervention research in India, supporting both academic performance and holistic child development.

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ANNEXURE-1

Questionnaire on Mindfulness Meditation Outcomes in Pre-Adolescents (MMOS-P)

Instruction for Students:

“This questionnaire is about your daily experiences at school and at home. It is not a test. There are no right or wrong answers. Please tick or circle the option that matches you best.”

Section A: Basic Information

1. Name/ID: _____
2. Age: _____ years
3. Class/Grade: _____
4. Gender: ☐ Boy ☐ Girl ☐ Other
5. School: _____
6. Village/Town: _____
7. Medium of instruction: ☐ Hindi ☐ English ☐ Other _____
8. Father's education: ☐ None ☐ Primary ☐ Secondary ☐ Graduate+
9. Mother's education: ☐ None ☐ Primary ☐ Secondary ☐ Graduate+
10. Parents' occupation: _____

Section B: Health, Lifestyle & Habits

Item No.	English Statement	Hindi Statement	Response Options				
			Never	Rarely	Sometimes	Often	Always
1	I get enough sleep (8–10 hours) every night.	मैं प्रतिदिन रात में पर्याप्त (8–10 घंटे) नींद लेता/लेती हूँ।	☐	☐	☐	☐	☐
2	I eat breakfast before going to school.	मैं स्कूल जाने से पहले नाश्ता करता/करती हूँ।	☐	☐	☐	☐	☐
3	I keep my daily screen time (TV/mobile/games) within a healthy limit.	मैं अपना दैनिक स्क्रीन समय (टीवी/मोबाइल/गेम्स) स्वस्थ सीमा के भीतर रखता/रखती हूँ।	☐	☐	☐	☐	☐
4	I feel tired during school hours.	मैं विद्यालय के समय थकान महसूस करता/करती हूँ।	☐	☐	☐	☐	☐
5	I drink enough water every day.	मैं प्रतिदिन पर्याप्त मात्रा में पानी पीता/पीती हूँ।	☐	☐	☐	☐	☐
6	I do at least 30 minutes of physical exercise (sports, yoga, or play) every day.	मैं प्रतिदिन कम से कम 30 मिनट शारीरिक व्यायाम (खेल, योग या अन्य गतिविधि) करता/करती हूँ।	☐	☐	☐	☐	☐
7	I often feel sick or unwell.	मैं अक्सर बीमार या अस्वस्थ महसूस करता/करती हूँ।	☐	☐	☐	☐	☐
8	I go for regular health check-ups.	मैं नियमित रूप से स्वास्थ्य जाँच करवाता/करवाती हूँ।	☐	☐	☐	☐	☐
9	I eat fruits or vegetables every day.	मैं प्रतिदिन फल या सब्जियाँ खाता/खाती हूँ।	☐	☐	☐	☐	☐
10	My health allows me to participate fully in my studies and school activities.	मेरा स्वास्थ्य मुझे पढ़ाई एवं विद्यालय की गतिविधियों में पूरी तरह भाग लेने में सक्षम बनाता है।	☐	☐	☐	☐	☐

Section C: Mindfulness Practice & Exposure

Item No.	English Statement	Hindi Statement	Response Options				
			Never	Rarely	Sometimes	Often	Always
1	I was familiar with the term "meditation" before this program.	इस कार्यक्रम से पहले मैं "मेडिटेशन" शब्द से परिचित था/थी।	☐	☐	☐	☐	☐
2	I had practiced meditation before joining this program.	इस कार्यक्रम में शामिल होने से पहले मैंने ध्यान का अभ्यास किया था।	☐	☐	☐	☐	☐
3	Before this program, I practiced	इस कार्यक्रम से पहले मैं घर, स्कूल या अन्य स्थानों पर ध्यान	☐	☐	☐	☐	☐

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	meditation at home, school, or other places.	का अभ्यास करता/करती था/थी।					
4	Before this program, I received guidance in meditation from teachers, parents, or others.	इस कार्यक्रम से पहले मुझे ध्यान का मार्गदर्शन शिक्षक, माता-पिता या अन्य लोगों से मिला।	☐	☐	☐	☐	☐
5	Before this study, I practiced meditation regularly.	इस अध्ययन से पहले मैं नियमित रूप से ध्यान करता/करती था/थी।	☐	☐	☐	☐	☐
6	During the last week, I practiced mindfulness meditation regularly.	पिछले सप्ताह मैंने नियमित रूप से माइंडफुलनेस मेडिटेशन का अभ्यास किया।	☐	☐	☐	☐	☐
7	I spend sufficient time practicing mindfulness each day.	मैं प्रतिदिन माइंडफुलनेस अभ्यास के लिए पर्याप्त समय देता/देती हूँ।	☐	☐	☐	☐	☐
8	I enjoy different mindfulness practices such as breathing, body scan, mantra, or story-based meditation.	मुझे श्वास, बॉडी स्कैन, मंत्र तथा कहानी-आधारित माइंडफुलनेस अभ्यास पसंद हैं।	☐	☐	☐	☐	☐
9	I find meditation enjoyable.	मुझे ध्यान करना आनंददायक लगता है।	☐	☐	☐	☐	☐
10	I find meditation easy to practice.	मुझे ध्यान करना आसान लगता है।	☐	☐	☐	☐	☐
11	I feel calmer after meditation.	ध्यान करने के बाद मैं अधिक शांत महसूस करता/करती हूँ।	☐	☐	☐	☐	☐
12	I practice mindfulness at home without the teacher's guidance.	मैं घर पर बिना शिक्षक के मार्गदर्शन के माइंडफुलनेस का अभ्यास करता/करती हूँ।	☐	☐	☐	☐	☐

Section D: Concentration & Attention

Item No.	English Statement	Hindi Statement	Response Options				
			Never	Rarely	Sometimes	Often	Always
1	I can listen carefully until my teacher finishes speaking.	मैं शिक्षक के बोलना समाप्त करने तक ध्यानपूर्वक सुन सकता/सकती हूँ।	☐	☐	☐	☐	☐

2	I complete my classwork without being distracted.	मैं बिना ध्यान भटके अपना कक्षा कार्य पूरा करता/करती हूँ।	☐	☐	☐	☐	☐
3*	I find it hard to pay attention when there is noise.	शोर होने पर मुझे ध्यान केंद्रित करने में कठिनाई होती है।	☐	☐	☐	☐	☐
4	I stay focused while reading a story until the end.	मैं कहानी पढ़ते समय अंत तक ध्यान केंद्रित रखता/रखती हूँ।	☐	☐	☐	☐	☐
5*	I forget what I was doing if someone interrupts me.	यदि कोई बीच में बाधा डालता है तो मैं अपना कार्य भूल जाता/जाती हूँ।	☐	☐	☐	☐	☐
6	I finish my homework before I start playing.	मैं खेलने से पहले अपना गृहकार्य पूरा करता/करती हूँ।	☐	☐	☐	☐	☐
7*	I get bored easily during lessons.	मैं कक्षा के दौरान आसानी से ऊब जाता/जाती हूँ।	☐	☐	☐	☐	☐
8	I can keep my attention focused on one thing.	मैं एक समय में एक ही कार्य या वस्तु पर ध्यान केंद्रित रख सकता/सकती हूँ।	☐	☐	☐	☐	☐
9*	I need reminders to stay on task.	मुझे कार्य पर ध्यान बनाए रखने के लिए बार-बार याद दिलानी पड़ती है।	☐	☐	☐	☐	☐
10	I can follow instructions carefully, step by step.	मैं दिए गए निर्देशों का चरणबद्ध तरीके से सावधानीपूर्वक पालन करता/करती हूँ।	☐	☐	☐	☐	☐
11*	I lose books, pencils, or other school materials that I need.	मैं अपनी आवश्यक किताबें, पेंसिल या अन्य अध्ययन सामग्री खो देता/देती हूँ।	☐	☐	☐	☐	☐
12	I can concentrate on my schoolwork for at least 15 minutes.	मैं कम से कम 15 मिनट तक अपनी पढ़ाई पर ध्यान केंद्रित रख सकता/सकती हूँ।	☐	☐	☐	☐	☐

Section E: Working Memory & Cognitive Flexibility

Item No.	English Statement	Hindi Statement	Response Options				
			Never	Rarely	Sometimes	Often	Always
1	I can remember three things my	मैं अपने शिक्षक द्वारा बताई गई तीन बातों को याद रख	☐	☐	☐	☐	☐

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	teacher tells me.	सकता/सकती हूँ।					
2	I forget instructions quickly.	मैं दिए गए निर्देशों को जल्दी भूल जाता/जाती हूँ।	☐	☐	☐	☐	☐
3	I can solve simple sums in my head without writing them.	मैं बिना लिखे मन में ही सरल गणनाएँ कर सकता/सकती हूँ।	☐	☐	☐	☐	☐
4	I lose track while copying from the board.	मैं श्यामपट (बोर्ड) से लिखते समय बीच में ध्यान खो देता/देती हूँ।	☐	☐	☐	☐	☐
5	I remember what I studied yesterday.	मुझे कल पढ़ी हुई बातें याद रहती हैं।	☐	☐	☐	☐	☐
6	I can repeat new words after hearing them once.	मैं एक बार सुनकर नए शब्द दोहरा सकता/सकती हूँ।	☐	☐	☐	☐	☐
7	I find it hard to keep two things in mind at the same time.	मुझे एक साथ दो बातें याद रखना कठिन लगता है।	☐	☐	☐	☐	☐
8	I try a different way if my first plan does not work.	यदि मेरी पहली योजना सफल नहीं होती, तो मैं दूसरा तरीका अपनाता/अपनाती हूँ।	☐	☐	☐	☐	☐
9	I can quickly switch from Mathematics to English class.	मैं गणित से अंग्रेज़ी की कक्षा में आसानी से अपना ध्यान बदल सकता/सकती हूँ।	☐	☐	☐	☐	☐
10	I get upset when my daily routine changes.	मेरी दैनिक दिनचर्या बदलने पर मैं परेशान हो जाता/जाती हूँ।	☐	☐	☐	☐	☐
11	I can think of more than one solution to a problem.	मैं किसी समस्या के एक से अधिक समाधान सोच सकता/सकती हूँ।	☐	☐	☐	☐	☐
12	I can continue playing a game even if the rules change.	यदि खेल के नियम बदल जाएँ, तब भी मैं खेल जारी रख सकता/सकती हूँ।	☐	☐	☐	☐	☐
13	I can understand things from another person's point of view.	मैं किसी दूसरे व्यक्ति के दृष्टिकोण से भी सोच सकता/सकती हूँ।	☐	☐	☐	☐	☐
14	I find it difficult to stop one activity and start another.	मुझे एक गतिविधि छोड़कर दूसरी गतिविधि शुरू करना कठिन लगता है।	☐	☐	☐	☐	☐

Section F: Academic Engagement & Performance

Item No.	English Statement	Hindi Statement	Response Options				
			Never	Rarely	Sometimes	Often	Always
1	I submit my homework on time.	मैं अपना गृहकार्य समय पर जमा करता/करती हूँ।	☐	☐	☐	☐	☐
2	I pay attention during class.	मैं कक्षा में ध्यानपूर्वक पढ़ाई करता/करती हूँ।	☐	☐	☐	☐	☐
3	I complete my homework	मैं बिना याद दिलाए अपना गृहकार्य पूरा	☐	☐	☐	☐	☐

	without being reminded.	करता/करती हूँ।					
4	I avoid schoolwork because it feels too difficult.	जब स्कूल का कार्य कठिन लगता है, तो मैं उससे बचने की कोशिश करता/करती हूँ।	☐	☐	☐	☐	☐
5	I ask questions when I do not understand something.	जब मुझे कोई बात समझ नहीं आती, तो मैं प्रश्न पूछता/पूछती हूँ।	☐	☐	☐	☐	☐
6	I actively participate in class discussions.	मैं कक्षा की चर्चाओं में सक्रिय रूप से भाग लेता/लेती हूँ।	☐	☐	☐	☐	☐
7	I feel confident before a test or examination.	परीक्षा से पहले मैं आत्मविश्वास महसूस करता/करती हूँ।	☐	☐	☐	☐	☐
8*	I forget to bring my school materials.	मैं अपनी आवश्यक स्कूल सामग्री लाना भूल जाता/जाती हूँ।	☐	☐	☐	☐	☐
9	I try to improve when I make mistakes.	गलती होने पर मैं उसे सुधारने का प्रयास करता/करती हूँ।	☐	☐	☐	☐	☐
10	My academic performance has been improving.	मेरे शैक्षणिक प्रदर्शन (अंक) में सुधार हो रहा है।	☐	☐	☐	☐	☐
11	I enjoy learning new topics in class.	मुझे कक्षा में नए विषय सीखना अच्छा लगता है।	☐	☐	☐	☐	☐
12	I give up easily when I face difficult questions.	कठिन प्रश्न आने पर मैं जल्दी हार मान लेता/लेती हूँ।	☐	☐	☐	☐	☐

Section G: Cognitive & Emotional Adjustment

Item No.	English Statement	Hindi Statement	Response Options				
			Never	Rarely	Sometimes	Often	Always
1	I stay calm when I face a difficult task.	कठिन कार्य मिलने पर मैं शांत रहता/रहती हूँ।	☐	☐	☐	☐	☐
2	I keep trying even when something is difficult.	कठिनाई आने पर भी मैं प्रयास करता/करती रहता/रहती हूँ।	☐	☐	☐	☐	☐
3	I get upset easily when things do not go my way.	जब बातें मेरी इच्छा के अनुसार नहीं होतीं, तो मैं जल्दी परेशान हो जाता/जाती हूँ।	☐	☐	☐	☐	☐
4	I can control my emotions when I am angry.	गुस्सा आने पर मैं अपनी भावनाओं को नियंत्रित कर सकता/सकती हूँ।	☐	☐	☐	☐	☐
5	I can solve problems without giving up.	मैं हार माने बिना समस्याओं का	☐	☐	☐	☐	☐

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		समाधान खोजने का प्रयास करता/करती हूँ।					
6*	I worry too much about small problems.	मैं छोटी-छोटी बातों की बहुत अधिक चिंता करता/करती हूँ।	☐	☐	☐	☐	☐
7	I can adjust easily to new situations.	मैं नई परिस्थितियों के अनुसार आसानी से स्वयं को ढाल लेता/लेती हूँ।	☐	☐	☐	☐	☐
8	I stay positive even when I make mistakes.	गलती होने पर भी मैं सकारात्मक सोच बनाए रखता/रखती हूँ।	☐	☐	☐	☐	☐
9*	I become frustrated if I cannot finish my work quickly.	यदि मैं अपना कार्य जल्दी पूरा नहीं कर पाता/पाती, तो मैं निराश हो जाता/जाती हूँ।	☐	☐	☐	☐	☐
10	I can understand how other people feel.	मैं दूसरों की भावनाओं को समझ सकता/सकती हूँ।	☐	☐	☐	☐	☐
11	I remain confident even after making mistakes.	गलती होने के बाद भी मैं आत्मविश्वास बनाए रखता/रखती हूँ।	☐	☐	☐	☐	☐
12	I find it difficult to control my emotions.	मुझे अपनी भावनाओं को नियंत्रित करना कठिन लगता है।	☐	☐	☐	☐	☐
13	I try to learn from my mistakes.	मैं अपनी गलतियों से सीखने का प्रयास करता/करती हूँ।	☐	☐	☐	☐	☐
14	I feel motivated to do my best in school.	मैं विद्यालय में अपना सर्वश्रेष्ठ देने के लिए प्रेरित महसूस करता/करती हूँ।	☐	☐	☐	☐	☐
15	I give up easily when I face challenges.	कठिनाइयों का सामना होने पर मैं जल्दी हार मान लेता/लेती हूँ।	☐	☐	☐	☐	☐