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ORIGINAL ARTICLE

Effect of Sookshma Meditation on Internet Addiction, Emotional Regulation, and Mindfulness in School Children: A Randomized Controlled Trial

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Abstract

Objectives: To determine the effect of Sookshma Meditation (SM) on Internet Addiction (IA), Emotional Regulation (ER), and Mindfulness in School Children-A randomized controlled trial. **Methods:** A randomized control trial designed to assess the effect of SM (Meditation-based Yoga practices) on IA, ER, and Mindfulness in school-going children. After screening, 80 school-going children (44 boys & 36 girls) with the age range of 12-14 years (13.37$\pm$0.69) were randomly assigned into two groups. Each group (Intervention & Control) contains 40 students. The intervention group had undergone the SM program daily for 30 minutes, 5 sessions per week, for four weeks. The control group followed day-to-day regular activities. Assessments were made before and after the 4-week program in two groups. **Results:** The result showed that IA was significantly reduced (P<0.001) in the intervention group, compared to the control group. A significant improvement is seen in ER strategies like cognitive reappraisal (P<0.001), expressive suppression (P=0.009), and mindfulness after the SM practice in the intervention group as compared to the control group. **Conclusion:** This study suggests that SM practice may be useful in reducing IA, enhancing ER, and mindfulness in school children. These findings need confirmation from studies with larger sample sizes with long term intervention.

Keywords: Meditation; Yoga; Internet Addiction; Emotional Regulation; Mindfulness

1 Introduction

Internet Addiction (IA) appears to be a public health problem leading to behavioral and psychosocial issues [1]. Therefore it is demanding to add IA in Diagnostic and Statistical Manual (DSM) of Mental Disorders, 5th edition [2]. In India, the status of IA is complex, data shows 137 million internet users in June 2012 as compared to 5 million in 2000, approximately 11.4 % of population are indulge with IA [3]. These have instant access to mobile and iPad devices that can make them mentally vulnerable to addiction. Surveys indicate that approximately 62% of parents claim their children aged 13 to 17 spend 3 hours or more daily on their cellphones, reading social media materials, watching movies, or playing games. Furthermore, 44% of parents think that their children exhibit signs of addiction on these devices [4]. Internet connectivity has become a necessity in daily life and children have full access to it. The easy access has its own set of issues that psychiatrists worldwide have recently begun to recognize as serious addiction [5]. The total prevalence of IA in adolescents ranges between 2% and 18% before COVID-19 [6].

India has a substantial population of internet users, with a significant proportion of young individuals increasingly utilizing the internet as a primary medium for social interaction and entertainment [7]. An increasing trend of IA is also on the rise during the past decade in India. A cross-sectional survey conducted before the onset of the first wave of COVID-19 lockdown revealed that the prevalence of IA encompassing mild, moderate, and severe forms among adolescents stood at 65% [8]. After schools closed during COVID-19, children have come in contact with the screen more through online classes thereby dramatically worsening IA in adolescents during the COVID-19 pandemic. IA is a behavioural addiction characterized by excessive or poorly controlled internet usage that disrupts daily life and social relationships [9].

Research studies conclude that adolescent IA is associated with the presence of psychological distress like depression, stress [10], lower social and school-academic self-esteem, [11], [12] and exhibit greater challenges in emotional regulation [13], characterized by excessive use of expressive suppression and insufficient cognitive reappraisal [14].

Also, it has been adversely connected with self-forgiveness, mindfulness, and excessive use of the internet may cause mental illness [15]. As a result, children often cannot perform to their full potential in pursuing their academic goals [16]. IA is considered a treatable condition through a combination of therapeutic interventions and behavioral modifications. Yoga and Meditation serves as an effective mind-body intervention to address these issues [17].

Research showed meditation promotes the psychological well-being and academic performance of the Children and adolescent [18]. Sookshma Meditation (SM) is an ancient meditation technique that is based on self-compassion and self-love as its foundation in the relaxation and healing process, with its origins in yogic philosophy [19]. Sunita Amma, the founder of the Peace Tree Innovations Society in Canada, brought this meditation technique to light in the past few decades [20]. Therefore, the present study aimed to address common problems like IA, ER, and Mindfulness among school-going adolescents by implementing the SM program.

2 Materials and Methods

2.1 Study Design

We carried out a Randomized Controlled Trial (RCT) study to evaluate the impact of SM on IA, emotional regulation, and mindfulness in school- going children.

2.2 Source of study

All participants were selected from the Public School, Indore, Madhya Pradesh, India.

2.3 Ethical statement

Ethical clearance was obtained from the Institutional Ethics Committee - Faculty of Allied Health and Basic Sciences, Sri Devaraj Urs Academy of Higher Education and Research, Kolar, Karnataka (Ref: SDUAHERJ IECI MJI 109 I 23-24). The study was assessor blinded, pre and post assessment were done by the individual who is not involved in giving the intervention. The complete process of the study was explained to the participants and parents followed by written assent from participant and consent from parents.

Subjects: After screening 120 students (those who met the inclusion criteria and agree to participate) eighty were enrolled for the study research. Out of eighty school children, 44 were boys and with an age range of 12 to 14 years (13.37 ± 0.69) participated in our study. They were divided into two group (Intervention and Control), by computer-generated random numbers, using random number generator in excel sheet. They were divided into an intervention group (n=40), which underwent a 30-minute

SM program for five days per week over four weeks, and 40 participants in control group, which continued with routine daily activities. Assessments were conducted for both the groups before and after the four-week intervention period (Figure 1).

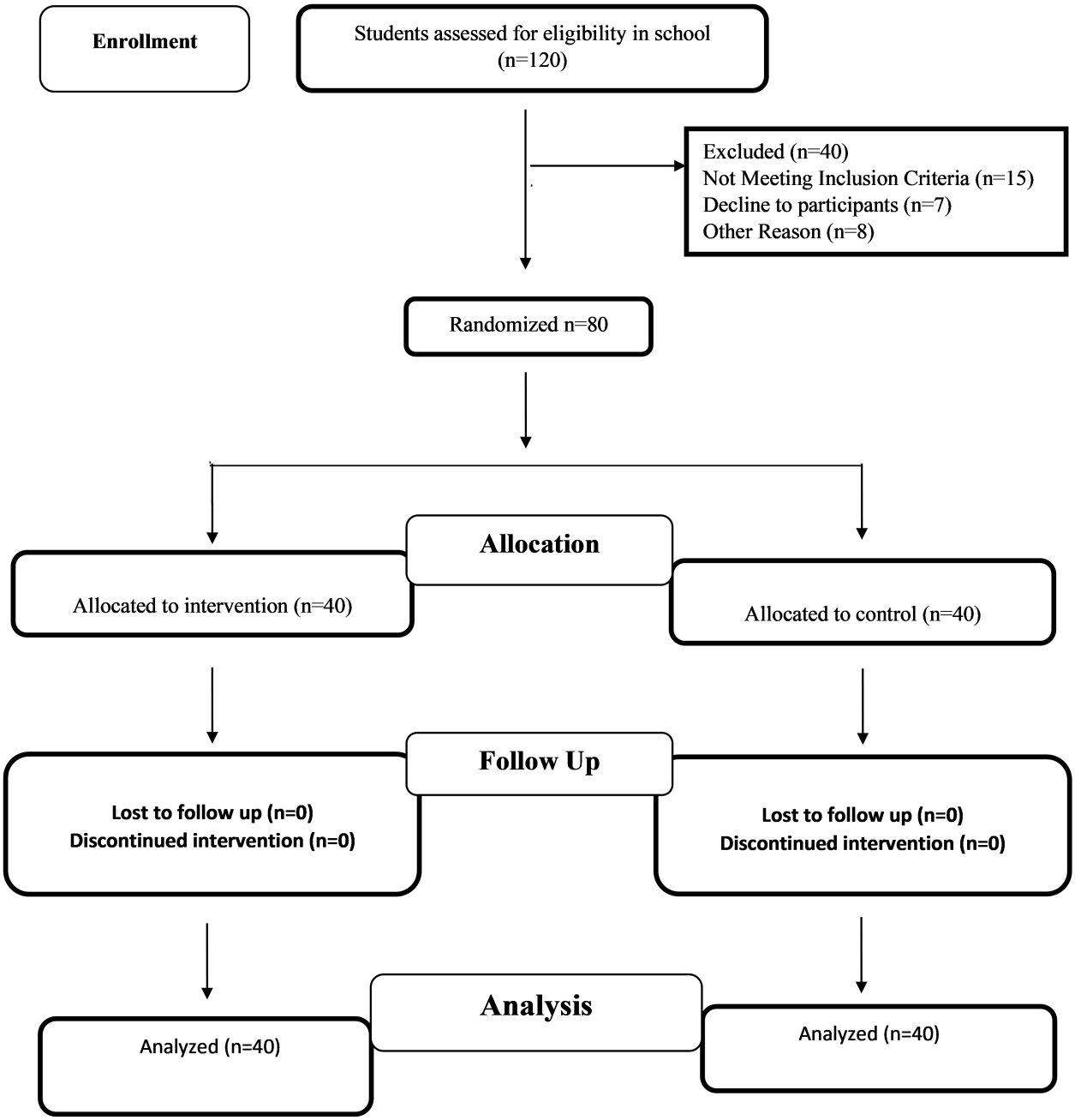

Fig 1. Study Design flow chart

2.4 Inclusion criteria

- Age group 12-17 years
- School-going children
- Both gender

2.5 Exclusion criteria

- Physical disability
- Known mental illness
- Exposure to yoga/Meditation in the last 3 months

2.6 Assessments

The assessments of the two groups were made before and after the 4 weeks of intervention. The following variables were assessed:

2.6.1. Internet Addiction Test (IAT)

The IAT is designed to assess the existence and severity of IA. IAT analyses IA symptoms and estimates self-reported compulsive Internet use in various conditions. It is a 20-item scale that measures the presence and severity of self-reported compulsive use of the Internet for adults and adolescents. Every statement is weighted along a Likert scale ranging from 0 = least extreme behavior to 5 = most extreme conduct, for each item [(1)]. The maximum score is 100 points. Higher scores indicate greater severity of IA. Scores from 0 to 30 reflect normal Internet use. Scores between 31 and 49 indicate mild addiction. Scores from 50 to 79 suggest moderate addiction. Scores between 80 and 100 indicate severe Internet dependence. In Indian settings, the IAT scale is highly reliable [(21)].

2.6.2. Emotion Regulation Questionnaire (ERQ)

The capacity to control emotion is important for human adaptation. A 10-item scale was created to assess responders' emotional regulation in two ways: (1) Cognitive Reappraisal and (2) Expressive Suppression. Each item can be answered on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). The overall internal consistency α coefficient of the ERQ is 0.82 (cognitive reappraisal) and 0.73 (expression suppression), respectively [(22)].

2.6.3. Mindfulness Attention Awareness Scale (MAAS)

MAAS is a quick and simple scale that examines an individual's dispositional potential to be attentive and mindful in everyday life events. It is a self-reported single-factor 15-item scale that mainly focuses on the mindfulness construct attention and awareness component. It may be used independently to evaluate persons with or without meditation experience. The obtained scale reliability coefficients (coefficient-ρ) of 15 items MAAS Scale was .92 [(23)]. Mindfulness is a state of consciousness that has long been thought to improve happiness [(24)].

2.6.4. Secondary parameters

The secondary parameters included sociodemographic and anthropometric data of the participants. Gender, age, and religious affiliation were recorded. Height and weight were measured using standard procedures, and Body Mass Index (BMI) was subsequently calculated.

2.7 Intervention

The SM practice consisted of a 30-minute session divided into two components (Table 1). The first 10 minutes involved Sookshma Vyayama (loosening practices), which included shoulder exercises for concentration, hand exercises for energizing, subtle head and neck movements for tension relief, as well as practices aimed at emotional balance and self-compassion. This was followed by Nadi Shodhana (alternate nostril breathing). The remaining 20 minutes were dedicated to Sookshma Meditation, focusing on inner awareness and mental stillness [(25)].

2.8 Data Collection and Analysis

Data were collected using standard protocol and various variables which were tabulated as per the standard scoring guidelines. Data were further organized for statistical analysis. Data was analyzed using JASP statistical software (version 0.19). Normality tests were conducted to assess the distribution of the data. Followed by independent samples t-tests were performed to compare the differences between the intervention and control groups. The level of significance was set at 0.05. The research was a RCT with 4 weeks of intervention for daily 30 minutes, weekly 5 days of practice. The intervention group underwent 30 min SM, and the control group followed the usual routine after collecting post-data from both groups, data were analyzed.

Table 1. Sookshma Meditation practices for Children (duration 30 Min.)

SI No	Sookshma Meditation Technique	Minutes
1.	Sookshma Vyayama (Loosening Practices) • Concentration: shoulder exercise • Energizing: Hands Exercise • Tension relief: Subtle Head and Neck Exercise • Emotional balance Exercise • Self-Compassion Exercise • Breathing practices: Nadi Shodhana	10
2.	Sookshma Meditation	20
	Total duration	**30**

3 Results

The sociodemographic characteristics of the intervention and control groups were similar (Table 2). Each group included 22 males and 18 females, with ages ranging from 12 to 14 years and mean ages of 13.05 and 13.7 years, respectively. Most participants in both groups were Hindu, with the intervention group also including one Jain and one Sikh participant. BMI classification indicated that the intervention group had 4 underweight, 26 normal-weight, and 10 overweight individuals, while the control group had 9 underweight, 24 normal-weight, and 7 overweight participants.

Table 2. Sociodemographic characteristics of intervention and control groups

Sl. No		Category	Intervention	Control
1	Gender	Male	22	22
		Female	18	18
2	Age	Mean	13.05	13.7
		Range	12-14	12-14
3	Religion	Hindu	38	40
		Jain	01	00
		Sikha	01	00
4	BMI	Underweight	4	9
		Normal	26	24
		Overweight	10	7

We examined the impact of SM practices on various psychological and physical measures, comparing them with the control group. The results revealed meaningful differences in psychological outcomes, particularly in the SM group, that highlight the benefits of meditation intervention (Table 3). Overall, the SM group showed a substantial reduction ($P<0.001$) in IA, reflecting the SM intervention's effectiveness in addressing behavioral concerns of adolescence.

Participants in the SM group demonstrated significant improvement ($P<0.001$) in their ability to cognitively reframe emotional experiences (reappraisal). The SM group exhibited a reduction ($P=0.024$) in the use of suppression as an emotional regulation strategy, indicating a positive shift toward more adaptive emotional responses. A notable improvement ($P=0.017$) in mindfulness was also observed in the SM group, signifying enhanced present-moment awareness and attention.

Other variables such as BMI did not show significant change at the end of the 4-week intervention as compared to control groups because the SM technique didn't include dynamic practices, which were mostly proven to be useful in the reduction of body weight and BMI.

4 Discussion

The adverse effect of IA on physical and mental health among school-going children has become a universal problem as it creates devastating effects on the quality of life of school-going children and adolescents[26]. Children with IA suffer from conditions like excessive anger, palpitation, lack of interest in the outside world, loneliness, and decreased interaction with family and friends when not connected to the internet[27]. Yoga therapy has already shown positive results on IA and related

Table 3. Independent samples t-test comparing the mean differences between the intervention and control groups.

Measure	Group	Pre (Mean ± SD)	Post (Mean ± SD)	t value	p-value	Effect Size (Cohen's d)
BMI	Control	20.66 ± 2.19	20.69 ± 2.16	-0.836	0.406	-0.187
	Intervention	21.11 ± 2.09	21.09 ± 2.12			
Internet Addiction Test (IAT)	Control	42.10 ± 11.14	42.38 ± 16.87	4.177	**< .001**	0.934
	Intervention	42.60 ± 7.91	27.65 ± 14.57			
Emotional Regulation Questionnaire (ERQ-CRF)	Control	18.48 ± 7.83	18.25 ± 5.93	-4.496	**< .001**	-1.005
	Intervention	18.45 ± 6.60	24.10 ± 5.71			
Emotional Regulation Questionnaire (ERQ-ERF)	Control	13.10 ± 6.13	12.68 ± 5.03	2.295	**0.024**	0.513
	Intervention	12.85 ± 4.59	10.53 ± 3.13			
Mindfulness Attention Awareness Scale (MAAS)	Control	47.08 ± 17.29	48.28 ± 14.80	-2.439	**0.017**	-0.545
	Intervention	46.63 ± 7.15	57.53 ± 18.87			

psychological problems[28]. A recent study on 29 youths (aged 14-40) from a specialized de-addiction clinic at NIMHANS, Karnataka, investigated the effect of an integrated yoga program (35-min per week) for 12 weeks with the addition of eight sessions of psychotherapy for the SM group. In the control group, the subjects received psychotherapy alone and at the end of 12 weeks showed a significant reduction in internet use in the SM group, while there were no changes in the control group[29].

Another multimodal randomized control study demonstrated yoga intervention (including physical posture, breath regulation, and relaxation techniques) as adjuvant therapy was found to be effective for excessive use of technology. Our study also showed SM practices (including physical posture, breath regulation, and relaxation technique) with significant impact in reducing IA. Previously reported narrative review[30],[31] also supports that mindfulness and yoga interventions seem to be effective in the reduction of IA via promoting positive well-being and self-control.

A previous RCT done on adolescents (15–17 years old) using a similar yoga module that included the postures, breathing, relaxation and guided meditation techniques for 16 weeks was found effective in increasing the ER capacities of adolescents[32]. Similarly, an RCT study using yoga intervention on 110 adolescents (age range 13-18 years) postulated that adolescents practicing yoga were noted to significantly differ from the adolescent group in ER[33]. Additionally, a non-RCT yoga intervention (kundalini yoga study) on 118 adolescents (age range 11-14 years) was found to be useful in the reduction of emotional dysregulation[34]. The multivariable used in our RCT study with a similar age range of 13-17 years as compared to other previous RCTs and Non-RCTs studies supports that yoga modules like SM can be used as an add-on treatment for clinically managing ER in an adolescent.

Another RCT study done in 2021 on 60 students, ages ranging between 14 and 16 years that used the Mind Sound Resonance Technique, a yoga-based relaxation technique was found to be effective in enhancing the cognitional abilities of school-going children[35]. A systematic review that evaluated the efficacy of various mindfulness-based yoga interventions which include physical postures, breath control, relaxation techniques, and meditation practices concluded that yoga interventions may help in enhancing mindfulness, attention and executive function in children and adolescents[36].

The apparent mechanism of actions of SM includes:

(i) A Recent study in adolescents demonstrated that internet addiction causes the brain function to become unstable and hyperactive ultimately leading to impulsive decision-making[37]. Yoga as a form of physical practice and meditation has shown promising effects on the reduction of hyperactivity and impulsivity in adolescents[38]. Yoga practices include physical postures, breathing practices, meditation, and relaxation techniques may also increase mindfulness leading to self-control and self-regulation and reducing the use of internet addiction in children[39].

(ii) Yoga enhances emotional resilience[40] and social-emotional competence[41], in children leading to self-emotional regulation in adolescents.

(iii) Various Yoga schools have focused on breath awareness and control, and attention towards physical postures which naturally leads to mindfulness practices[42], that improve attention and cognitive function in children practicing yoga[43].

SM demonstrated in this study is a holistic practice that aims to improve the overall well-being of the body, mind, and spirit. It aims to restore physical energy, emotional balance, and mental calm by clearing subtle bodily and mind impurities. Sookshma is derived from the ancient Indian language 'Sanskrit'. Sookshma translates to 'Subtle', specifically the subtle body which regulates the physical body. The subtle body is made up of the mind and its allied faculties like memory, subconscious, senses, and intellect. Scientific evidence depicts the impact of the mind and body as individuals' thoughts, feelings, and emotions have a direct impact on their well-being. The cause of most modern-day illnesses is deeply rooted in our habits, behaviors, and actions.

Many types of meditation are currently in use and SM is a unique technique that is based on self-compassion as its foundation in the relaxation and healing process. Self-compassion has been found to help regulate body dissatisfaction and improve self-worth in individuals[44],[45]. Apart from meditation, this practice also involves subtle and simple physical movements/exercises to release tension/stress in the body, breathing exercises that aid in the reduction of stress and anxiety, and finally the meditation practice for complete relaxation[46].

In SM, there is an emphasis on 'smile' as an object of concentration during the entire practice that aids in being mindful about the present moment and also aids as an additional relaxation technique. Smiling has been found to have a positive impact on the physical health of individuals[47]. Meditation practice is done in the lying down position to help complete relaxation of the body contrary to the sitting position that is practiced in many forms of meditation that can be distractive. Another relaxation practice called 'Yoga Nidra ' uses a lying down position and there have been many studies conducted on this that showed many benefits in individual wellbeing[48].

Based on the case studies and the interviews, these practices have been known to help participants build constant integrated awareness so that they can handle mental and emotional turmoil with ease. The role of self-compassion has been found very effective in overcoming the need to be self-judgmental and self-critical[49]. The biggest hurdle in many mindfulness practices is the inability of participants to start the practice because of the oscillating nature of the mind. Subtle exercises take a unique approach by taming the body and emotions, before getting to the meditation practice.

These exercises further help to destress the body and mind and also energize an individual from the inside out. Participants have reported benefits and the ability to apply these practices in their day-to-day lives at work or home to overcome mental stress and emotional turmoil. Although yoga-based meditation with a combination of physical posture, breath regulations, and breathing exercises has been well-proven in various research, the role of SM on mind and body has not yet been proven by systematic research[49],[50],[51]. Therefore, more studies focusing on this meditation technique are needed in the near future to better understand the impact.

Strengths:

This study has demonstrated several strengths that include the usage of multiple variables, better adherence by the subjects, exploration of a clinically important area of research and the appropriate usage of the control group.

Limitations and Future Suggestion:

This study includes some limitations such as a small sample size, short study duration and the lack of objective measures of assessment. We would like to state that this study is a preliminary attempt to develop a multivariable assessment, and we plan in the future to carry out studies with larger sample sizes with a more robust research design. Future trails should assess the long-term impact of add-on yoga intervention and possible underlying mechanisms.

5 Conclusions

This study suggests that SM practice is useful in reducing IA, enhancing ER and mindfulness in school-going children. These findings need confirmation from long-term experimental studies with larger sample sizes with more objective variables.

References

1) Young KS. Internet Addiction Test. 2015. https://doi.apa.org/doi/10.1037/t41898-000.
2) Pies R. Should DSM-V Designate "Internet Addiction" a Mental Disorder? Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC2719452/.
3) Sharma A, Sahu R, Kasar P, Sharma R. Internet addiction among professional courses students: A study from central India. *Int J Med Sci Public Health*. 2014;3(9):1069–1073. http://dx.doi.org/10.5455/ijmsph.2014.180620142.
4) Bharucha J. Social network use and youth well-being: a study in India. *SC*. 2018;17(2):119–131. http://dx.doi.org/10.1108/SC-07-2017-0029.

5) Enagandula R, Singh S, Adgaonkar G, Subramanyam A, Kamath R. Study of internet addiction in children with attention-deficit hyperactivity disorder and normal control. *Ind Psychiatry J*. 2018;27(1):110. https://doi.org/10.4103/ipj.ipj_47_17.
6) Gao M, Teng Z, Wei Z, Jin K, Xiao J, Tang H, et al. Internet addiction among teenagers in a Chinese population: Prevalence, risk factors, and its relationship with obsessive-compulsive symptoms. *Journal of Psychiatric Research*. 2022;153:134–140. https://doi.org/10.1016/j.jpsychires.2022.07.003.
7) Park E, Kwon M. Health-Related Internet Use by Children and Adolescents: Systematic Review. *J Med Internet Res*. 2018;20(4). https://doi.org/10.2196/jmir.7731.
8) Narayanappa P, Nirgude A, Nattala P, Philip M, Subramanian K. Prevalence and Predictors of Internet Addiction Among Adolescents Before the First Wave of COVID-19 Lockdown in India. *Cureus*. 2024.
9) Shaw M, Black DW. Internet Addiction: Definition, Assessment, Epidemiology and Clinical Management. *CNS Drugs*. 2008;22(5):353–365. https://doi.org/10.2165/00023210-200822050-00001.
10) Bukhori ABM, Ja'afar MH. Internet addiction among adolescents during the COVID-19 pandemic: Associations with sociodemographic and psychological distress. *PeerJ*. 2024;12. https://doi.org/10.7717/peerj.17489.
11) Livadas S, Diamanti-Kandarakis E. Polycystic Ovary Syndrome: Definitions, Phenotypes and Diagnostic Approach. 2013. Available from: https://www.karger.com/Article/FullText/341673.
12) Aydm B, San SV. Internet addiction among adolescents: The role of self-esteem. *Procedia - Social and Behavioral Sciences*. 2011;15:3500–3505. https://doi.org/10.1016/j.sbspro.2011.04.325.
13) Tsai JK, Lu WH, Hsiao RC, Hu HF, Yen CF. Relationship between Difficulty in Emotion Regulation and Internet Addiction in College Students: A One-Year Prospective Study. *IJERPH*. 2020;17(13). https://doi.org/10.3390/ijerph17134766.
14) Karaer Y, Akdemir D. Parenting styles, perceived social support and emotion regulation in adolescents with internet addiction. *Comprehensive Psychiatry*. 2019;92:22–27. https://doi.org/10.1016/j.comppsych.2019.03.003.
15) Arslan G, Coşkun M. Social Exclusion, Self-Forgiveness, Mindfulness, and Internet Addiction in College Students: a Moderated Mediation Approach. *Int J Ment Health Addiction*. 2022;20(4):2165–2179. https://doi.org/10.1007/s11469-021-00506-1.
16) Restrepo A, Scheininger T, Clucas J, Alexander L, Salum GA, Georgiades K, et al. Problematic internet use in children and adolescents: associations with psychiatric disorders and impairment. *BMC Psychiatry*. 2020;20(1). Available from: https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-020-02640-x.
17) Afrin S, Rahman NAS, Tabassum TT, Abdullah F, et al. The Impact of Internet Addiction on Academic Performance Among Medical Students in Bangladesh: A Cross-Sectional Study and the Potential Role of Yoga. *Annals of Neurosciences*. 2024. https://doi.org/10.1177/09727531241235999.
18) Crescentini C, Capurso V, Furlan S, Fabbro F. Mindfulness-Oriented Meditation for Primary School Children: Effects on Attention and Psychological Well-Being. *Front Psychol*. 2016. Available from: http://journal.frontiersin.org/Article/10.3389/fpsyg.2016.00805/abstract.
19) Breedvelt JJF, Amanvermez Y, Harrer M, Karyotaki E, Gilbody S, Bockting CLH, et al. The Effects of Meditation, Yoga, and Mindfulness on Depression, Anxiety, and Stress in Tertiary Education Students: A Meta-Analysis. *Front Psychiatry*. 2019;10:193. https://doi.org/10.3389/fpsyt.2019.00193.
20) Kollipara DS, Patil DNJ. Wellness from within: Personal and Global Wellbeing with Sookshma Meditation. 1st ed. Vancouver, BC, Canada. Peace Tree Innovations Society. 2022.
21) Spoorthy MS, Singh LK, Tikka SK, Hara SH. Exploratory Factor Analysis of Young's Internet Addiction Test Among Professionals from India: An Online Survey. *Indian Journal of Psychological Medicine*. 2021;43(1):65–69. https://doi.org/10.1177/0253717620932243.
22) Gouveia VV, Moura HMD, Oliveira ICVD, Ribeiro MGC, Rezende AT, Brito TRDS. Emotional Regulation Questionnaire (ERQ): Evidence of Construct Validity and Internal Consistency. *Psico-USF*. 2018;23(3):461–471. https://doi.org/10.1590/1413-82712018230306.
23) Osman A, Lamis DA, Bagge CL, Freedenthal S, Barnes SM. The Mindful Attention Awareness Scale: Further Examination of Dimensionality, Reliability, and Concurrent Validity Estimates. *Journal of Personality Assessment*. 2016;98(2):189–199. https://doi.org/10.1080/00223891.2015.1095761.
24) Brown KW, Ryan RM. The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*. 2003;84(4):822–848. https://doi.org/10.1037/0022-3514.84.4.822.
25) Kollipara DS, Patil DNJ. Wellness from within: Personal and Global Wellbeing with Sookshma Meditation. 1st ed. Vancouver, BC, Canada. Peace Tree Innovations Society. 2022.
26) Cheng C, lam Li A. Internet Addiction Prevalence and Quality of (Real) Life: A Meta-Analysis of 31 Nations Across Seven World Regions. *Cyberpsychology, Behavior, and Social Networking*. 2014;17(12):755–760. https://doi.org/10.1089/cyber.2014.0317.
27) Gür K, Yurt S, Bulduk S, Atagöz S. Internet addiction and physical and psychosocial behavior problems among rural secondary school students. *Nursing & Health Sciences*. 2015;17(3):331–338. https://doi.org/10.1111/nhs.12192.
28) Tripathi A. Impact of Internet Addiction on Mental Health: An Integrative Therapy Is Needed. *Integr Med Int*. 2018;4(3-4):215–222. https://doi.org/10.1159/000491997.
29) Tadpatrikar A, Sharma MK, Bhargav H, Anand N, Sharma P, Sharma S. Yoga as an Adjuvant with Multimodal Psychological Interventions for Excessive Use of Technology: A Randomized Controlled Trial from India. *International Journal of Yoga*. 2024;17(1):37–45. https://doi.org/10.4103/ijoy.ijoy_187_23.
30) Samanta P, Mohapatra I, Mitra R, Mishra J, Mahapatra P, Mohakud NK, et al. Mindfulness as a Path to Freedom from Internet Addiction in Adolescents: A Narrative Review. *Cureus*. 2024. Available from: https://www.cureus.com/articles/307000-mindfulness-as-a-path-to-freedom-from-internet-addiction-in-adolescents-a-narrative-review.
31) Putchavayala CK, Singh D, Sashidharan RK. A perspective of yoga on smartphone addiction: A narrative review. *Journal of Family Medicine and Primary Care*. 2022;11(6):2284–2291. https://doi.org/10.4103/jfmpc.jfmpc_1765_21.
32) Daly LA, Haden SC, Hagins M, Papouchis N, Ramirez PM. Yoga and Emotion Regulation in High School Students: A Randomized Controlled Trial. *Evidence-Based Complementary and Alternative Medicine*. 2015;2015:1–8. https://doi.org/10.1155/2015/794928.
33) Janjhua Y, Chaudhary R, Sharma N, Kumar K. A study on effect of yoga on emotional regulation, self-esteem, and feelings of adolescents. *J Family Med Prim Care*. 2020;9(7):3381. https://doi.org/10.4103/jfmpc.jfmpc_153_20.
34) McMahon K, Berger M, Khalsa KK, Harden E, Khalsa SBS. A Non-randomized Trial of Kundalini Yoga for Emotion Regulation within an After-school Program for Adolescents. *J Child Fam Stud*. 2021;30(3):711–722. https://doi.org/10.1007/s10826-021-01911-9.
35) Anusuya US, Mohanty S, Saoji AA. Effect of Mind Sound Resonance Technique (MSRT – A yoga-based relaxation technique) on psychological variables and cognition in school children: A randomized controlled trial. *Complementary Therapies in Medicine*. 2021;56. https://doi.org/10.1016/j.ctim.2020.102606.
36) Mak C, Whittingham K, Cunnington R, Boyd RN. Efficacy of Mindfulness-Based Interventions for Attention and Executive Function in Children and Adolescents—a Systematic Review. *Mindfulness*. 2018;9(1):59–78. https://doi.org/10.1007/s12671-017-0770-6.

37) Liu M, Luo J. Relationship between peripheral blood dopamine level and internet addiction disorder in adolescents: a pilot study. *Int J Clin Exp Med*. 2015;8(6):9943–9948. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC4538113/.
38) Cohen SCL, Harvey DJ, Shields RH, Shields GS, Rashedi RN, Tancredi DJ, et al. Effects of Yoga on Attention, Impulsivity, and Hyperactivity in Preschool-Aged Children with Attention-Deficit Hyperactivity Disorder Symptoms. *J Dev Behav Pediatr*. 2018;39(3):200–209. https://doi.org/10.1097/dbp.0000000000000552.
39) Sharma MK, Bhargav H, Kumar A, Digambhar V, Mani TA. Mindfulness-Based Interventions: Potentials for Management of Internet Gaming Disorder. *International Journal of Yoga*. 2021;14(3):244–247. https://doi.org/10.4103/ijoy.ijoy_46_21.
40) Waechter RL, Wekerle C. Promoting Resilience Among Maltreated Youth Using Meditation, Yoga, Tai Chi and Qigong: A Scoping Review of the Literature. *Child Adolesc Soc Work J*. 2015;32(1):17–31. https://doi.org/10.1007/s10560-014-0356-2.
41) Felver JC, Razza R, Morton ML, Clawson AJ, Mannion RS. School-based yoga intervention increases adolescent resilience: a pilot trial. *Journal of Child & Adolescent Mental Health*. 2020;32(1):1–10. https://doi.org/10.2989/17280583.2019.1698429.
42) Gaiswinkler L, Unterrainer HF. The relationship between yoga involvement, mindfulness and psychological well-being. *Complementary Therapies in Medicine*. 2016;26:123–127. https://doi.org/10.1016/j.ctim.2016.03.011.
43) Parajuli N, Pradhan B, Bapat S. Effect of yoga on cognitive functions and anxiety among female school children with low academic performance: A randomized control trial. *Complementary Therapies in Clinical Practice*. 2022;48. https://doi.org/10.1016/j.ctcp.2022.101614.
44) Albertson ER, Neff KD, Dill-Shackleford KE. Self-Compassion and Body Dissatisfaction in Women: A Randomized Controlled Trial of a Brief Meditation Intervention. *Mindfulness*. 2015;6(3):444–454. https://doi.org/10.1007/s12671-014-0277-3.
45) Toole AM, Craighead LW. Brief self-compassion meditation training for body image distress in young adult women. *Body Image*. 2016;19:104–112. https://doi.org/10.1016/j.bodyim.2016.09.001.
46) Bentley TGK, D'Andrea-Penna G, Rakic M, Arce N, LaFaille M, Berman R, et al. Breathing Practices for Stress and Anxiety Reduction: Conceptual Framework of Implementation Guidelines Based on a Systematic Review of the Published Literature. *Brain Sciences*. 2023;13(12):1612. https://doi.org/10.3390/brainsci13121612.
47) Cross MP, Acevedo AM, Leger KA, Pressman SD. How and why could smiling influence physical health? A conceptual review. *Health Psychology Review*. 2023;17(2):321–343. https://doi.org/10.1080/17437199.2022.2052740.
48) Kumari M, Karunaratne H. Therapeutic Effects of Yoga Nidra: A Review. *Int J Health Sci Res*. 2022;12(12):148–153. Available from: https://www.ijhsr.org/IJHSR_Vol.12_Issue.12_Dec2022/IJHSR24.pdf.
49) Neff KD, McGehee P. Self-compassion and Psychological Resilience Among Adolescents and Young Adults. *Self and Identity*. 2010;9(3):225–240. https://doi.org/10.1080/15298860902979307.
50) Subramanya P, Telles S. A review of the scientific studies on cyclic meditation. *Int J Yoga*. 2009;2(2):46–48. https://doi.org/10.4103/0973-6131.60043.
51) Hofmann SG, Grossman P, Hinton DE. Loving-kindness and compassion meditation: Potential for psychological interventions. *Clinical Psychology Review*. 2011;31(7):1126–1132. https://doi.org/10.1016/j.cpr.2011.07.003.