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Research Paper

Expressive Writing: An Intervention to Enhance Emotional Regulation, Sleep Quality, and Self-Compassion in Competitive Exam Aspirants

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ABSTRACT

Adolescents preparing for competitive exams cope with identity crises, family pressure and emotional turmoil while shaping their careers in this crucial phase. Journaling shows promise in enhancing emotional regulation, sleep quality and fostering self-compassion. The current study evaluated expressive writing intervention customized for the entrance exam aspirants. A sample of 138 Joint entrance examination (JEE) and National Eligibility cum Entrance Test (NEET) aspirants were selected from Surat, Gujarat, India. Participants were randomly assigned to the experimental group (n=69) and the control group (n=69) conditions. Participants were asked to complete self-reports which involved the use of Emotion Regulation Questionnaire for Children and Adolescents (ERQ–CA) to measure emotional regulation (ERQ–CA), Pittsburgh Sleep Quality Index (PSQI) for quality of sleep (PSQI) and self-compassion scale (SCS) before and after the completion of the intervention. Results revealed that individuals in the intervention condition reported significant increases in emotional regulation ($p < .001$), quality of sleep ($p < .05$), and reduction in self-judgment ($p < .001$) in comparison to their counterparts in the comparison group. The intervention did not have a statistically significant effect on self-compassion. The study also highlights adopting a more holistic approach to student well-being, recognizing the interconnectedness of emotional regulation and sleep quality. The results suggest that customized expressive writing interventions, such as journaling, can be incorporated into educational settings to support adolescents preparing for competitive exams. Schools and coaching centers could consider implementing such interventions to address emotional regulation and sleep quality issues commonly experienced by students during this critical phase.

Keywords: *Writing, Adolescent, Sleep, Emotion, Self-Care, India*

The demanding workload and cutthroat competition of India's entrance examinations, including the National Eligibility cum Entrance Test (NEET) and Joint Entrance Examination (JEE), fuel high levels of stress among aspirants. This is underscored by the limited availability of seats compared to the vast number of applicants; only 7,71,500 out of 15,97,435 applicants qualified (NEET, 2022). Studies have revealed alarmingly high rates

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of mental health concerns in this population, with over 50% experiencing stress, 63% depression, and 82% anxiety (Mishra et al., 2020). Notably, 62% suffer from severe stress, and 79% exhibit sleep issues (Kumar et al., 2016). Furthermore, suicide rates are unfortunately on the rise among this population (Kumar et al., 2016). Family pressure, lack of leisure time, limited social support, and unhealthy coping mechanisms such as self-blame all play a role in jeopardizing students' psychological well-being and academic performance (Mishra et al., 2020). In light of these implications, it is crucial to formulate and implement evidence-based psychological interventions to effectively address the mental health needs of JEE and NEET aspirants.

Expressive writing has shown promise in enhancing emotional regulation in previous studies (Cheung et al., 2021; Harvey et al., 2019; Maslej et al., 2020). Writing about feelings and how to solve problems helps individuals to manage their emotions better (James, 2009). Zhao et al. (2019) found that journal writing intervention effectively promoted positive cognitive reappraisal and reduced depressive symptoms in adolescents with high academic pressure. Boominathan et al. (2022) found that writing about positive emotions for 30 days significantly reduced test anxiety among adolescents compared to writing about daily activities. Visual journaling has been effective in reducing anxiety and negative affect levels among medical students, suggesting journaling as an intervention for stress reduction (Mercer et al., 2010).

Literature indicates the scope of journaling as a potential solution for improving sleep quality (Koo et al., 2020; Spiegel & Marks, 2019; Harvey et al., 2018; Liu et al., 2019). A meta-analysis conducted by Yang et al. (2021) revealed that a significant positive effect, suggesting that various forms of journaling, including expressive writing, can offer modest improvements in sleep across diverse populations. Expressive writing about negative experiences before bed has been found effective in reducing sleep difficulties in female college students with negative body image issues compared to a control group (Arigo & Smyth, 2011). Problem-solving writing about worries and emotional expression has shown shorter sleep onset latency among university students, indicating a potential impact on sleep habits (Harvey et al., 2003). Liu & Chen (2015) found that expressive writing improved sleep efficiency in college students. While these studies provide encouraging evidence for the beneficial impact of journaling on sleep, further research is necessary to explore the impact of expressive writing on sleep quality, particularly in the context of high-pressure academic environments like those faced by JEE and NEET aspirants.

Self-compassion comprising kindness, common humanity, and mindfulness (Neff, 2003), has been associated with improved emotional regulation and mood (Kemper et al., 2018; Wong & Mak, 2016). Reflective journaling has been effective in increasing self-compassion as it enhances the beliefs about the ability to cope with stress among college students (Taylor et al., 2020). Self-compassionate writing is effective in reducing negative mood compared to expressive writing groups (Wong & Mak, 2016). Understanding this link is crucial to determine if expressive writing can be leveraged to cultivate self-compassion and thereby enhance emotional well-being in students facing this intense stress.

Current research lacks tailored interventions specifically designed for high-pressure academic environments, longitudinal assessments of the sustained effects of journaling, exploration of scalability and practical implementation in educational settings, cultural sensitivity considerations, and an understanding of the direct influence on academic

performance. By investigating these gaps, the study aims to provide a comprehensive understanding of the potential benefits of journaling in improving emotional regulation, and enhancing sleep quality, ultimately contributing to the development of effective and culturally sensitive interventions for students preparing for competitive exams.

Research has established a positive relationship between sleep quality and emotional regulation (Mauss et al., 2012). Baum et al. (2014) demonstrated a compelling link between poor sleep quality and impaired emotion regulation in adolescents. Their study revealed that participants undergoing sleep restriction (5.5 hours instead of 8.5 hours) reported an escalation of negative emotions, including increased feelings of tension/anxiety, anger/hostility, confusion, and fatigue, accompanied by a decrease in vigor. Participants who experienced sleep restriction (5.5 hours instead of 8.5 hours) reported feeling more tense/anxious, angry/hostile, confused, and fatigued, while feeling less vigorous. Self-compassion is positively associated with emotional regulation as fostering self-acceptance and understanding enhances mindfulness and healthy coping strategies to navigate emotional distress (Kemper et al., 2018; Odou & Brinker, 2013).This relationship between self-compassion and emotional regulation is further supported by the positive impact of self-compassion exercises, like loving-kindness meditation which reduces emotional distress and rumination, fosters a positive mental state conducive to restful sleep (Wong & Mak, 2016; Bryant et al., 2021). This interconnectedness between sleep, self-compassion, and emotional regulation suggests that interventions promoting self-compassion may not only directly improve emotional regulation but also indirectly boost sleep quality, creating a positive feedback loop for well-being (Wang et al., 2018).

In this study, we hypothesized that journaling does not significantly impact emotional regulation, sleep quality and self-compassion among JEE and NEET aspirants. Further, we predicted that there is no significant relationship between emotional regulation, sleep quality and self-compassion.

MATERIAL AND METHODS

Participants

Participants were recruited from three schools and various coaching centers in Surat, Gujarat, India, from 8 June to 1 July, 2023. All were eleventh or twelfth-graders preparing for either the Joint Entrance Examination (JEE) or the National Eligibility cum Entrance Test (NEET). Out of 150 initial participants who provided assent, complete data sets were obtained from 138 (69 intervention and 69 control groups). Of these, 61 (44.2%) were female and 77 (55.8%) were male, with an average age of 15.96 years. Most participants (84.8%, n=117) were in the eleventh grade, with the remaining 15.2% (n=21) in the twelfth grade. Of the participants, 79 (57.2%) were preparing for JEE, and 59 (42.8%) were preparing for NEET. School and coaching attendance information revealed that 83% of participants spent 2-4 hours in school daily, and 76.1% spent the same amount of time in coaching.

All procedures followed the ethical standards of the responsible committee on human experimentation and with the Helsinki Declaration of 1975, as revised in 2000. Informed assent was obtained from all participants for being included in the study. Participants were not compensated for their participation in this study.

Procedure

With prior approval from the school authorities in Surat, participants were recruited via purposive sampling. An initial orientation held at the school informed students about the study and allowed for questions and discussion, facilitating informed consent.

Written parental consent and participant assent were obtained before recording demographic data and administering the pre-test questionnaires. Participants were then randomly assigned to either the experimental or control groups.

The experimental group engaged in daily journaling before bedtime for one month. They received colorful online worksheets delivered daily via email and were instructed to place a sticky note reminder on the place where they journal, which served as reminders. The control group received no specific instructions. The experimenter met the experimental group at school every eight days to address any issues and ensure protocol adherence. Daily email reminders were sent, and participants documented their journaling completion on a shared Excel sheet. The post-test assessment was conducted after 25 days. Following the experiment, participants were debriefed, thanked, and provided an opportunity to discuss any concerns.

Intervention

Expressive writing is utilized by modifying the procedure of Pennebaker's and Chug (2009) to understand the deepest thoughts and feelings that the students experience during the preparation for the upcoming exam. Journaling is provided in a colorful worksheet format. The prompts included solution and problem-focused questions, validated by two subject experts and two clinical Psychologists. Participants assigned to the expressive writing group were asked to write about their deepest thoughts and feelings about the upcoming exam. Specifically, they read the instructions in question: "*Over the next few days, I will ask you to write down your deepest thoughts and feelings in the space provided after each question. There are no right and wrong responses. You might write about the same thing over the next 25 days. Once you have written it, kindly update that daily on the shared Excel sheet. All your writing will be kept strictly confidential. Don't think about spelling, sentence structure, or grammar. Take your own time to write about it*".

Measures

- **Demographic Data Sheet:** Participants were asked about their name initials, age, sex, education, stream, school and coaching, time spent in school and coaching, name of the examination preparation for, place of residence (hostel/with family) and details of guardian.

- **Emotional Regulation:** Emotion Regulation Questionnaire for Children and Adolescents (ERQ–CA) (Gullone &Taffe, 2012) was used to measure emotional regulation of the participants. The 10-item ERQ-CA is closely based on the adult version ERQ (Gross & John, 2003), with some of the wording revised to make it more accessible (for instance, "not expressing emotion" became "not showing feelings"). The ERQ-CA has been validated with children and adolescents aged 10-18. Participants rate their tendency to regulate their emotion by Expressive Suppression which consists of six items and Cognitive Reappraisal consists of four items on a 7-point Likert scale. The present study showed good internal consistency for each subscale (α= .62 for Reappraisal, .66 for Suppression).

- **Quality of Sleep:** Pittsburgh Sleep Quality Index (PSQI)was used to measure the sleep quality (Buysse,1989) by measuring seven sleep quality domains, which include: (1) subjective sleep quality, (2) sleep latency, (3) sleep duration, (4) habitual sleep efficiency, (5) sleep disturbance, (6) sleep medication, and (7) daytime dysfunction. The internal consistency test of PSQI scores showed an overall reliability coefficient (Cronbach's alpha) of 0.736, a value suggesting acceptable consistency. Internal homogeneity was high, with the majority of correlations between questionnaire component scores and the summed global score being significant among the Indian Population (Manzar et al., 2015). In the present study PSQI was found to be adequate reliability (α= .72).

- **Self-Compassion:** Self-Compassion Scale (SCS) was used to measure self-compassion (Nef,2003). The Self- Compassion Scale has 26 items measuring six components of self-compassion: Self-kindness, self-judgment, common humanity, isolation, mindfulness and over identification. Items are rated on a five-point response scale ranging from 1 (almost never) to 5 (almost always). Good Test–Retest Reliability was obtained were as follows: Self-Compassion Scale (overall score): .93; Kindness subscale: .88; Self-Judgment subscale: .88; Common Humanity subscale: .80; Isolation subscale: .85; Mindfulness Subscale: .85; and Over-Identification subscale: .88. In the present study SCS has been reported to have good internal consistency (α= .78).

Data analysis

Data analysis was conducted using Jamovi (The Jamovi Project, 2020), a free and open statistical platform which provides the latest developments in statistical methodology. First, participant's characteristics were analyzed using descriptive statistics and spearman correlation was used to analyze the relationship between Emotional regulation components, Quality of sleep and self-compassion. Next, an independent sample T-test was performed to examine the difference between experimental and control group and Paired sample T test was conducted to analyze the changes from pretest to post-test.

RESULTS

The total sample consisted of 61 females (44.2 %) and 77 (55.8%) were male with a mean age of 15.96 years. Most of the participants were studying in 11 grade including 117 (84.8%) and 21(15.2%) were in 12 grade and preparing for JEE were 79 (57.2%) and NEET included 59 (42.8%).

Table 1 Correlation between Emotion Regulation, Self-Compassion and Quality of sleep

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1.Reappraisal	—									
2.Suppression	0.127	—								
3.Quality of Sleep	-0.035	0.136	—							
4.Self Kindness	0.173*	-0.008	0.022	—						
5.Self Judgment	-0.027	0.021	0.352***	0.229**	—					
6.Common Humanity	0.197*	-0.025	0.048	0.406***	0.385***	—				
7.Isolation	0.09	0.132	0.158	0.357***	0.278**	0.378***	—			
8.Mindfulness	0.143	-0.008	0.096	0.485***	0.222**	0.489***	0.393***	—		
9.Over Identified	0.054	0.026	0.255**	0.388***	0.466***	0.25**	0.407***	0.296**	—	
10.Self Compassion	0.137	-0.102	0.237**	0.416***	0.368***	0.398***	-0.143**	0.509***	-0.359***	—

Note. * p < .05, ** p < .01, *** p <.001

Table 1 indicates that Spearman's Correlations have been used to examine the relationship between emotional regulation, quality of sleep and subscales of self-compassion. Self-Kindness has a statistically significant weak positive correlation with Reappraisal (r = .17, p < 0.05). Self-Judgment has statistically significant positive correlations with Poor quality of sleep (r = .35, p < 0.01). Common Humanity has statistically significant weak positive correlations with Reappraisal (r = .19, p < 0.05). Over Identified has statistically significant positive correlations with Poor quality of sleep (r= .25, p < 0.01). Self-compassion is negatively correlated with Poor quality of sleep (r= -.23, p < 0.1). The results showed that self-judgment and over identification are positively correlated with poor quality of sleep. Self-kindness and Common humanity are positively related with Reappraisal. Self-compassion has a negative association with Poor quality of sleep.

Table 2 Differences in scores from pretest to posttest for entire sample

	Pretest		**Posttest**				
	M	*SD*	*M*	*SD*	*W*	*p*	*Cohen's d*
R	21.2	3.5	18.9	4.15	6176	< .001***	0.4731
S	14.5	2.83	13.08	3.02	5089	< .001***	0.3788
PSQI	10.79	6.3	8.51	5.46	5919	0.002*	0.3088
SJ	2.65	0.88	2.05	0.64	6626	< .001***	0.5804
SC	3.14	0.34	3.11	0.37	5139	0.466	0.0716

Note. R Reappraisal; S Suppression; PSQI Quality of Sleep; SJ Self Judgment; SC Self Compassion
* p < .05, ***p<0.001

Table 2 indicates that Wilcoxon signed rank sum test was used to analyze the differences from pre to post intervention. Suppression has been significantly decreased from pre- to post-intervention (W= 5089, $p < 0.01$) along with Reappraisal (W= 6176, $p < 0.01$). Poor quality of sleep has decreased significantly from pre to post intervention (W= 5919, $p < 0.05$). Self-judgment has been significantly decreased from pre- to post-intervention (W= 6626, $p < 0.01$). However, there is no significant difference in Self-Compassion from pre to post intervention (W= 5139, $p > 0.05$).

Table 3 Differences in change scores between experimental and control groups

	Experimental group	**Control group**			
	M(SD)	*M(SD)*	*U*	*p*	*Cohen's D*
R	18.51(4.43)	19.33(3.84)	2060	0.171	0.1348
S	12.96(3.02)	13.2(3.04)	2220	0.492	0.0676
PSQI	5.81(3.79)	11.2(5.56)	989	< .001***	0.5845
SJ	1.99(0.61)	2.11(0.66)	2242	0.309	0.1002
SC	3.08(0.36)	3.14(0.38)	2051	0.161	0.1386

Note. R Reappraisal; S Suppression; PSQI Quality of Sleep; SJ Self Judgment; SC Self Compassion
***p<0.001

Table 3 indicates that Independent sample t tests revealed significant differences between the experimental and control groups on Quality of sleep, indicating that those receiving intervention had a significantly greater decrease in Poor quality of Sleep (M=5.81) than those in the control group(M=11.2), U= 989, $p < 0.01$. There were no other significant between group differences on reappraisal (U= 2060, p =0.17), Self-Judgment (U=2242, p=.30) Self-Compassion (U= 2051, p= .16) and Suppression (U= 2220, p=.49).

DISCUSSION

The findings revealed that the components of self-compassion, self-kindness and common humanity, are positively correlated with cognitive reappraisal, one of the components of emotional regulation supporting the self-compassion model (Neff, 2003). According to this model, individuals high in self-compassion are more likely to engage in adaptive emotional regulation strategies, such as cognitive reappraisal, leading to improved emotional well-being. Past research indicated that self-compassion is found to be positively associated with emotional regulation (Kemper et al., 2018; Odou & Brinker, 2013), as self-compassion is considered an emotional regulation strategy that can be used to cope with difficult situations. This has been supported by previous studies in which the adolescents who were more self-compassionate, including more self-kind and understanding, were more likely to use cognitive reappraisal to cope with daily life problems (Neff et al., 2009) and also with stressful life events (Leary et al., 2007). Common humanity may help to cope with the negative effects of stressful events by promoting reappraisal (Geng et al., 2021). Common humanity may reduce social interaction anxiety by helping people to use cognitive reappraisal to cope with negative thoughts and emotions (Tang & Tang,2021).

Self-judgment has significant positive correlations with decline in quality of sleep. Bryant et al., (2020) found that participants who were more self-judgmental reported worse sleep quality, including more difficulty falling asleep and more waking up during the night. Individuals with high self-judgment may become hypervigilant to sleep disturbances and engage in negative self-talk about sleep, creating a self-fulfilling prophecy (Harvey et al.,

2005; Spielman et al., 2013). The study also highlighted that over-identification subscale of self-compassion has positive correlations with poor quality of sleep. Over-identification involves excessive empathy and immersion in one's own emotions, potentially leading to rumination at bedtime which can interfere with sleep onset (Neff, 2021; Thompson & Waltz, 2015). Hu et al. (2018) found positive correlation between over-identification and poor sleep quality correlation among Chinese college students. This suggests that over-identification may be a risk factor for poor sleep quality in college students across cultures.

Self-compassion has a negative correlation with poor quality of sleep. Previous studies have confirmed that self-compassion was negatively correlated with sleep disturbances in adults who had experienced a major life challenge (Brown et al.,2009). Self-compassion is a powerful component that can enhance sleep quality. A meta-analysis found that self-compassion was negatively correlated with poor sleep quality (Butz et al.,2020). These studies suggest that self-compassion may be a protective factor against poor sleep quality. People who are more self-compassionate may be better able to cope with stress, regulate their emotions, and which can lead to better sleep (Bryant et al., 2021).

The findings of this research indicated that journaling significantly decreased the poor quality of sleep. This aligns with the Cognitive-Behavioural Model of Insomnia (CBT-I), suggesting that journaling may be a cognitive intervention to address maladaptive pre-sleep behaviors. This is consistent with previous research that has suggested a link between mindfulness, expressive writing, and improved sleep. Diary writing, a form of journaling, facilitates reflection and expression, potentially mitigating sleep problems (Mols & Markopoulos, 2012). Expressive writing has also been effective in reducing sleep difficulties, particularly among individuals with negative body image issues (Arigo & Smyth, 2011). Problem-solving writing has shown promise in reducing sleep onset latency (Harvey et al., 2003). This suggests that journaling may help individuals enhance their sleep habits.

This study found that expressive writing significantly reduced the use of suppression and reappraisal, which are two common emotional regulation strategies that can be counterproductive. This aligns with the theoretical underpinnings of Catharsis Hypothesis proposed by Pennebaker (1997), which states that writing about emotional experiences helps individuals process and regulate their emotions effectively. This is consistent with prior research examining the effects of journaling on improving emotional regulation (Roemer et al.,2015). Journaling allows individuals to express and process their emotions, reducing distress and enhancing emotional recovery. Additionally, journaling interventions focused on stressful events have shown positive cognitive reappraisal, which is a key aspect of emotional regulation (Ullrich & Lutgendorf,2002). Expressive writing group had a significant reduction in reappraisal among college students with test anxiety (Arigo & Smyth,2011). Narrative journaling can increase emotional competence by promoting self-reflection and exploration (James, 2009). This finding suggests that journaling can be a valuable tool for individuals seeking to enhance their emotional regulation skills, whether in professional education or other settings.

The present study found that expressive writing did not have a significant effect on self-compassion. This is in contrast with the previous studies which have shown that journaling can be an effective way to improve self-compassion. Taylor et al. (2020) found that journaling was an effective way to improve self-compassion in adults with depression.

Wong & Mak (2016) indicated that journaling was an effective way to improve self-compassion in college students. Barnard & Curry (2011) found that journaling helped adults with chronic pain to accept their pain and to be more compassionate towards themselves. However, all the above studies focused on different populations of adults with depression, chronic pain and college students. The current study is focusing on students who are preparing for entrance examinations. This is a significant difference, as students preparing for entrance examinations may be under a lot of stress and pressure, which could impact their self-compassion. For them, the priority is often getting into their desired school or program. This may lead them to focus on their academic performance and external validation, rather than on self-compassion. This also suggests that journaling may not be the most effective way to improve self-compassion, but it may be helpful in conjunction with other interventions such as Mindfulness-Based Stress Reduction (MBSR), Mindfulness-Based Cognitive Therapy (MBCT) and acceptance and commitment therapy ((Williamson & Rose, 2014).

An additional finding was that expressive writing reduced self-judgment tendencies. This resonates with the Cognitive-Behavioural Model, which posits that changing maladaptive thought patterns can lead to positive behavioral outcomes. Engaging in expressive writing or journaling allows individuals to identify and challenge negative self-judgments, promoting cognitive restructuring (Beck, 1976). Previous studies have shown that expressive writing intervention was effective in reducing self-criticism and rumination in college students (Srivastava et al., 2014). A meta-analysis found that expressive writing was effective in reducing anxiety symptoms, including negative self-judgment (Gagne et al., 2018). The present study contributes to the growing body of research on the benefits of journaling. It provides preliminary evidence that journaling can be an effective intervention for improving emotional regulation, sleep quality, and self-compassion in students preparing for entrance examinations.

Limitations and Future Research

The study will be limited in terms of its generalizability to the overall student population group. The second limitation is the participants have to be internally motivated to continue the process of engaging in journaling as there is no way to track whether they are actually practicing it or not. Another limitation is that despite the measures taken to ensure that there is no harm inflicted, there is a possibility that journaling can lead to rumination and therefore can resurface some of the emotional conflicts which might remain unaddressed.

The present study has used an expressive writing framework, and future comparative studies can be conducted to analyze the effectiveness of different types of journaling (gratitude journaling and narrative journaling) on emotional regulation, sleep quality, and self-compassion. This can help identify the most effective journaling approaches for specific outcomes. Future studies can also assess the potential mediation effect of the personality traits, and additional coping mechanisms in responding to the stress levels of academic pressure. The study's duration may be relatively short-term therefore future studies can perform long-term, follow-up studies to assess the sustained effects of journaling. This could provide insights into whether the benefits persist over time.

However, this study suggests that customized expressive writing interventions can be a valuable tool for supporting adolescents preparing for high-stakes competitive exams. By incorporating journaling into educational settings can address the emotional regulation and

sleep quality issues commonly experienced by students during this critical phase. Journaling can provide a safe space for students to process their anxieties, frustrations, and uncertainties, leading to improved emotional regulation and stress management. To effectively implement journaling interventions, it is important to consider accessibility, training for educators and coaches, customization of prompts and activities, and continuous evaluation and feedback. By providing this type of support, schools and coaching centers can equip students with the tools they need to navigate the pressures of competitive exams and promote their overall well-being and academic success.

Ethical considerations

Informed consent was taken from the parents and assent from the participants and after consent only the data was recorded. They were informed that they have the right to withdraw from the study at any time and that their responses will be kept confidential and only used for academic purposes. The anonymity of the participant data was ensured by removing all identifying information and only denoted with coded numbers and the access will be with the researcher and supervisor only. Completed screening questionnaires and signed consent were stored in locked filing cabinets in a locked office. The researcher kept the code Excel sheet on a password protected computer. The control group will be given the same intervention that the experimental group received if the proposed intervention positively affects the participants to ensure the beneficence of all the participants. After the data analysis and manuscript are submitted the results will be shared with the participants. The participants were debriefed about the study and if any distress was faced during or after the experiment, it was resolved by the experimenter with the mentioned shared contact in the consent form and a referral of a psychologist was provided to ensure that no participants were harmed during the study.

Key messages:

- Journaling showed promise in enhancing sleep quality among exam aspirants. Participants who engaged in expressive writing reported significant improvements in sleep quality compared to those in the control group, indicating its potential to address sleep disturbances common among students preparing for competitive exams.
- The intervention led to a significant reduction in self-judgment among participants. This suggests that expressive writing interventions can help alleviate negative self-perceptions and promote self-compassion, crucial for maintaining psychological well-being during the exam preparation phase.
- The study emphasizes the importance of adopting a holistic approach to student well-being, recognizing the interconnectedness of emotional regulation and sleep quality. It suggests that interventions targeting both emotional regulation and sleep quality could be more effective in supporting students' mental health during critical phases of exam preparation.
- The results imply that customized expressive writing interventions, such as journaling, can be effectively incorporated into educational settings to support adolescents preparing for competitive exams. Schools and coaching centres are encouraged to consider implementing such interventions to address sleep quality issues commonly experienced by students, thereby promoting their overall well-being and academic success.

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Conflict of Interest

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