



Exploring School-Based Emotion Regulation Programs for Asian Adolescents: Recommendations based on a Scoping Review

Candice Chelsea F. de Castro¹
Nikko J. Malazarte¹

¹De La Salle University Manila, 2401 Taft Avenue, Malate, Manila, Philippines

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Abstract

Adolescence is a critical period of development characterized by transitions that are physical, emotional, and psychological in nature. Emotion regulation is a key factor in this development stage, having demonstrated effects in academic performance and mental health. This scoping review explored school-based emotion regulation programs that utilize Asian adolescents, aimed towards identifying the common interventions used and discussing their effectiveness. Arksey and O'Malley's (2005) framework and the PRISMA-ScR guided the scoping of studies that explored the feasibility and effectiveness of emotion regulation programs designed to reduce symptoms of mental health concerns relative to school setting. Findings of the scoping review revealed an important area of research for emotion regulation — the need for culturally grounded, school-based emotion regulation within the Asian context, particularly in the Philippines. The recommendations of the study include development of interventions, programs, and studies that highlight evidence-based approaches that are culturally resonant to adolescent mental health in Asian educational settings, most specifically in the Philippines.

Keywords: emotion regulation, scoping review, Asian, adolescents, school-based interventions



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INTRODUCTION

Adolescence is a period of development characterized by several changes that may be physical, emotional, social, or cognitive in nature, making it a critical period of development. Salmela-Aro (2011) shared that this is a period during which a person transitions from being a child to an adult, where one of the main tasks is to develop a sense of self and become an autonomous individual. In addition to the physical and physiological changes they experience, adolescents begin to prioritize their peer relationships, distancing themselves from their parents.

Alongside these transitions are changes in their emotional experiences. Adolescents experience a decline and maladaptive shift in emotion regulation (Cracco et al., 2017; Zimmerman & Iwanski, 2014). Bailen et al. (2019) also explored the emotional frequency, intensity, instability, and clarity among adolescents. They found that compared to

adults, adolescents experience more high-intensity emotions, fewer low-intensity emotions, and higher levels of emotional instability. While adolescents learn to slowly identify their own and others' emotions during middle adolescence (Salmelo-Aro, 2011), specific cognitive processes associated with emotion regulation are still being developed during this stage, leading to potential concerns in terms of their emotion regulation (Fombouchet et al., 2023). These changes can make adolescents more susceptible to responding negatively to the situations that they encounter, making them more prone to mental health conditions.

Adolescents spend the majority of their time in school. As such, schools are provided with several opportunities to aid the development of their social and emotional skills. School counselors, in particular, advocate for these students' well-being through evidence-based school counseling programs (American School Counselor Association, n.d.). This highlights the

importance of looking into school-based programs, which are intervention programs developed and implemented within the school setting. Given the important role of emotion regulation in adolescents' development, this paper focuses on school-based emotion regulation programs. Munn et al. (2018) highlighted that scoping reviews allow for the identification and recognition of available evidence in the field, as well as identifying and analyzing gaps present. With this, a scoping review was conducted to explore the existing literature in school-based emotion regulation programs, and at the same time, see if there are gaps and differences that exist in the available literature.

Through this scoping review, mental health professionals in schools can gain more information on the prevalence and implementation of school-based emotion regulation programs in the context of Asian adolescents, which can serve as valuable information in their work in creating and implementing evidence-based programs to help their clients.

LITERATURE REVIEW

This literature review begins with defining the concept of emotion and emotion regulation, followed by an exploration of the impact of emotion regulation across the academic, mental health and well-being aspects, and an overview of interventions that are targeted to improve emotion regulation.

Gross (2015) shared that emotions can be considered as an affective state that includes changes in terms of subjective experience, behavior, and physiology. He also shared that emotions are generated through a process that begins with a psychologically relevant situation, which is attended to and appraised in relation to the person's goals.

This attention and appraisal, in turn, generate a response, giving rise to emotional experience. Moreover, emotions can also be helpful or harmful depending on the context.

Emotion regulation, on the other hand, can be defined as the internal and external processes a person engages in, which are responsible for monitoring, evaluating, and modifying emotional reactions to accomplish one's goals (Thompson, 1994). Gross (2015) also highlighted that it involves the efforts a person makes to influence the emotions they experience, when they experience these emotions, and how these emotions are expressed. Furthermore, people could change either the intensity, duration, or quality of an emotion through several strategies that are implemented across the emotion-generative process.

Emotion Regulation and Academic Performance. Emotions, together with emotion regulation, are associated with academic achievement. For instance, Pekrun (2017) shared that positive emotions can help improve adolescents' learning through improved attention and an increased motivation for task completion. On the other hand, deficits in emotion regulation skills among adolescents are associated with lower perceptions of success in school (Oram, et al., 2017). Similarly, Putarek and Pavlin-Bernardić (2020) studied how emotion regulation influences academic performance, particularly through the lens of test anxiety. Their results show that students who use adaptive emotion regulation strategies (i.e. cognitive reappraisal) experienced lower levels of test anxiety, while those who relied on suppression or avoidance of emotions felt more anxious and scored lower on assessments.

Teixeira et al., (2021) explored how emotion dysregulation, or the difficulties experienced in managing emotions, impact academic stress in adolescents.

Findings show that students who present concerns with emotion dysregulation tend to experience more academic stress, in that they feel more overwhelmed with their tasks, feel pressure to succeed, and have difficulty handling their academic responsibilities. Of particular interest is that these emotional difficulties tend to intensify as these students enter adolescence, highlighting that emotion

dysregulation can have lasting effects on academic well-being.

Emotion Regulation and Mental Health. Another aspect where emotion regulation plays a crucial role is in relation to mental health and overall well-being outcomes. McLaughlin et al. (2011) examined relationships among poor emotion regulation skills and various forms of psychopathology in a sample of adolescents. They found that emotion dysregulation predicted the development of multiple forms of psychopathology, including anxiety, aggression, and eating pathology.

WapaÉo (2021) also explored the role of emotional intelligence in the mental health of Filipino college students, and results revealed that emotional clarity, or the ability to understand one's emotions, negatively predicts depression. On top of this, emotional clarity and emotion repair (the degree to which an individual regulates his/her mood) were found to negatively predict anxiety.

Berking & Wupperman (2012) did a review on emotion regulation and mental health and shared that emotion regulation seems to be associated with various mental health disorders and could be a perpetuating factor of such.

To start with, emotion dysregulation can be considered a core feature of borderline personality disorder (BPD). Individuals diagnosed with BPD often lack emotional awareness and clarity, have lesser ability to tolerate distress when pursuing goals, tend to use harmful emotion regulation strategies when dealing with distress, and have deficits in using cognitive reappraisal to regulate emotions. Depression, on the other hand, is also conceptualized as a consequence of dysfunctional emotion regulation. Depressed individuals tend to experience difficulties in identifying, accepting, and modifying their emotions adaptively. Emotion regulation deficits are also involved in those with anxiety disorders, which could increase the likelihood of avoidance behaviors. Substance-related disorders are also conceptualized as an effort

to regulate or avoid negative emotions, since negative affect could predict an increased urge to drink.

Consequently, emotion regulation skills help promote social adjustment and predict resilience (Morrish et al., 2018; Azpiazu Izaguirre, et al., 2021). Engaging in cognitive reappraisal is also associated with positive affect, better life satisfaction, and social support (Verzeletti, et al., 2016).

Emotion Regulation Interventions in Schools. Given the role emotion regulation plays in the academic and mental health aspects, school-based interventions designed to help improve emotion regulation skills seem to be essential. One intervention used in emotion regulation programs include mindfulness-based interventions. Metz et al. (2013) explored the effectiveness of the Learning to BREATHE Program, a mindfulness-based training program designed to help the development of emotion regulation and attention skills, among middle school and high school students in the United States. The program includes topics on body awareness, understanding and working with thoughts and feelings, integrating awareness of thoughts, feelings, and bodily sensations, reducing harmful self-judgments, and integrating mindful awareness into daily life. Their findings show that indeed, the program has a positive effect on measures of emotion regulation. Those who participated in the program reported reductions in emotion regulation difficulties such as lack of emotional awareness and having limited access to emotion regulation strategies, reductions in psychosomatic symptoms, an improvement in terms of self-regulation efficacy, and a decrease in self-reported stress.

Pickerell et al. (2023) did a systematic review and meta-analysis on the effectiveness of school-based programs aimed towards improving awareness, modulation, and expression of emotion among 7–12-year-olds, focusing specifically on cognitive behavioral interventions (CBI) and mindfulness-based interventions (MBI). Cognitive behavioral

interventions focus on reappraisal – reframing dysfunctional thoughts to reduce distress, while mindfulness-based interventions aim to promote non-judgmental awareness. Both, however, can be integrated into the school curriculum and delivered using a universal setting (everyone in the classroom can participate). Their inclusion criteria included the following: studies that used randomized controlled trials (RCT), quasi-RCTs, and non-randomized controlled trials; used 7-12 year old children in primary or elementary mainstream schools as participants; authors identified the intervention as either being based on cognitive behavior therapy for CBIs with no elements of mindfulness, and as MBIs if the authors identified it as such, and included mindfulness meditations, body scans, and breath awareness; the intervention is school-based and delivered in a group setting delivered by the school staff or an external practitioner; used a component of emotion regulation as an outcome measure; and published using the English language. A total of thirty (30) studies were included in their review, twelve of which were CBI-based and eighteen of which were mindfulness-based. Their results show that school-based CBIs do not have an effect on self-reported anxiety and depression levels and helped reduce the negative expressive behaviors of participants as reported by their parents. MBIs, on the other hand, helped increase participants' level of emotional awareness for those that ran for 12 weeks or less, suggesting that the duration of the intervention probably plays a role in its effectiveness. MBIs were also found to have a moderate effect on positive emotion modulation for participants who are 10 years old and above, and a small effect on depression outcomes. Lastly, they also highlighted that CBIs tend to focus more on targeting mental health outcomes, while MBIs target more general aspects of well-being.

Similarly, Pedrini et al. (2022) did a systematic review of school-based interventions focused on improving emotion regulation in adolescent students. Their review included a total of thirty-six (36) studies with the following inclusion criteria: the studies used early

adolescents/adolescents as participants; the studies were randomized-controlled or nonrandomized controlled in terms of study design; the intervention was implemented in a school setting; the intervention was related to emotion regulation processes; and is written using the English language.

Their findings show that these interventions were delivered using either a universal approach (everyone was invited to participate) or a selected approach (the intervention was given to targeted students). Interventions were also based on different frameworks, such as cognitive behavioral therapy (CBT), acceptance and commitment therapy (ACT), dialectical behavioral therapy (DBT), and mindfulness practices, among others. Results also suggest that these school-based interventions helped improve emotion regulation skills, promote mental health, and decrease risky behaviors.

Statement of the Problem. Literature shows that emotion regulation is an essential skill to develop among adolescents, given its implications not just in academic performance, but in terms of preventing the development of mental health conditions, and improving well-being as well (Pekrun, 2017; Putarek & Pavlin-Bernardić, 2020; Teixeira et al., 2021; McLaughlin et al., 2011; WapaÉo, 2021; Berking & Wupperman, 2012; Morrish et al., 2018; Azpiazu Izaguirre, et al., 2021; Verzeletti, et al., 2016). As such, school-based interventions serve as an avenue to help improve adolescents' emotion regulation skills.

These interventions are usually delivered either using a universal approach where the entire student population is invited, or through a more targeted, selective approach. They also use varied evidence-based approaches stemming from mindfulness-based interventions, cognitive behavioral therapy, acceptance and commitment therapy, and dialectical behavior therapy (Pickerell, et al., 2023; Pedrini et al., 2022). However, these programs are mostly run using participants from the Western culture. A gap exists in terms of exploring these programs and its effectiveness using adolescent mental health in the Asian population.

This scoping review, therefore, aims to explore school-based programs on emotion regulation using Asian adolescents as participants. More specifically, this review aims to answer the following research questions:

1. Are there existing school-based emotion regulation programs focused on Asian adolescents?
2. What interventions are utilized and implemented in these programs?
3. What can be recommended as the outcome of the scoping review?

METHODOLOGY

Research Design. The study employed a scoping review methodology to systematically map the existing literature on school-based interventions aimed at improving emotion regulation among Asian adolescents. The review will follow the framework of Arksey and O'Malley (2005), refined by Levac et al. (2010), which is widely used for exploring broad and complex areas of research.

This approach is particularly suitable for identifying key concepts, types of evidence, and research gaps in fields that are still emerging or not yet comprehensively reviewed. The review process will follow the stages: identifying the research question using the Population–Concept–Context (PCC) framework; identifying relevant studies through a comprehensive search of multiple databases; selecting studies based on the predefined inclusion and exclusion criteria; charting the data using a standardized extraction form; and collating, summarizing, and reporting the results through descriptive and thematic synthesis.

To ensure transparency and methodological rigor, the review adhered to the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) checklist developed by Tricco et al. (2018). This checklist includes 20 essential

and 2 optional items that guide the reporting of scoping reviews from title to discussion.

Eligibility Criteria. A scoping review may end with only a few eligible studies because it is designed to map the extent, range, and nature of research on a specific topic, especially when that topic is emerging or underexplored. This outcome often reflects a genuine gap in the literature rather than a flaw in the review process. Scoping reviews use predefined inclusion criteria, and when those criteria are strict—such as requiring cultural relevance, school-based settings, and adolescent populations—the pool of qualifying studies can be very limited. This scarcity of eligible studies is itself a valuable finding, highlighting areas where further research is urgently needed (Peters, et al. 2021).

Inclusion Criteria. Studies that met the following inclusion criteria were included in the review: a) included Asian adolescents as participants; b) used interventions aimed at improving emotion regulation or related constructs (e.g., emotional awareness, reappraisal, mindfulness), c) implemented in school settings; d) reported effects on emotion regulation, academic performance, or mental health; e) randomized controlled trials (RCTs), quasi-experimental studies, non-randomized controlled trials, or mixed-methods studies; e) published in English; and f) published between 2020 and 2025.

Exclusion Criteria. Studies were removed from the review if they met any of the following criteria: a) the intervention was conducted/facilitated outside the school setting (e.g., home-based, clinical-only), b) the intervention did not target emotion regulation, c) the program did not target school mental health as a primary or secondary outcome; d) the program utilized non-Asian adults or children as participants; e) a theoretical paper, editorial, or non-empirical literature; and e) published earlier than 2020.

Information Sources and Search Strategy. A comprehensive search was conducted across databases such as PubMed, Scopus,

ScienceDirect, PsycNET, and Taylor and Francis Online. The search terms included combinations of: (“emotion regulation” OR “emotional regulation” OR “emotional awareness”) AND (“school-based intervention” OR “school program” OR “school curriculum”) AND (“adolescents” OR “teenagers” OR “youth”). Boolean operators and filters were used to refine the search and generate peer-reviewed articles published between 2020 and 2025. All retrieved records were reviewed, titles and abstracts were screened for relevance, and in accordance with inclusion and exclusion criteria.

Table 1 highlights the keywords utilized in collecting articles that were screened to be part of the review.

Table 1
Advanced Search for Databases

Data Base	Search String
Scopus	(“emotion regulation” OR “emotional regulation” OR “emotional awareness”) AND (“school-based intervention” OR “school program” OR “school curriculum”) AND (“adolescents” OR “teenagers” OR “youth”)
PubMed	(“emotion regulation” OR “emotional regulation” OR “emotional awareness”) AND (“school-based intervention” OR “school program” OR “school curriculum”) AND (“adolescents” OR “teenagers” OR “youth”)
PsycNET	(“emotion regulation” OR “emotional regulation” OR “emotional awareness”) AND (“school-based intervention” OR “school program” OR “school curriculum”) AND (“adolescents” OR “teenagers” OR “youth”)
Taylor and Francis Online	(“emotion regulation” OR “emotional regulation” OR “emotional awareness”) AND (“school-based intervention” OR “school program” OR “school curriculum”) AND (“adolescents” OR “teenagers” OR “youth”)

Data Extraction. The PRISMA-ScR checklist was used to guide the extraction process and ensure completeness and consistency. Data was charted highlighting the following information: a) author(s), year, and country; b) study design and sample characteristics; c) intervention type, duration, and delivery method; d) theoretical framework (e.g., CBT, mindfulness, ACT, DBT); e)

outcome measures related to emotion regulation, academic performance, and mental health; and f) key findings and implications.

Filtering and Screening Process. Following the scoping review of Arksey and O'Malley (2005) as revised by Levac (2010), a total of 165 articles were gathered from the following databases: 16 from Scopus, 3 from PubMed, 10 from Taylor and Francis Online, 63 from APA PsycNet, and 73 from ScienceDirect. After applying the inclusion and exclusion criteria, the following filtering process was conducted:

Identification Phase. Studies that did not focus on emotion regulation were removed, resulting in 56 studies;

Screening Phase. Exclusion of studies that did not utilize a school-based intervention, resulting in 11 studies;

Eligibility Phase. Studies that did not use Asian participants were removed from the selection, resulting in 3 studies; and,

Inclusion Phase. Final selection of 2 articles that demonstrated the implementation of a school-based emotion regulation program among Asian adolescents.

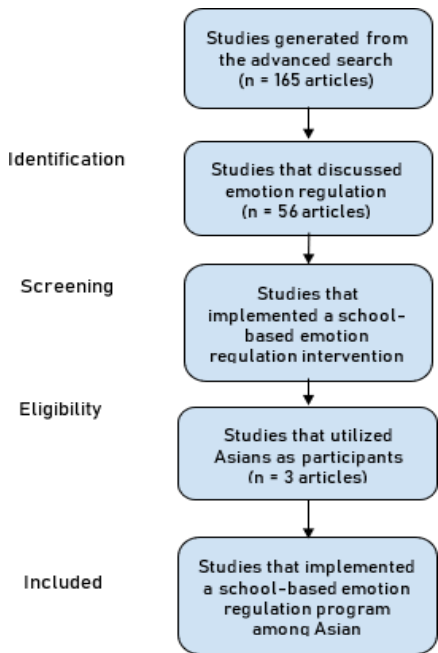


Figure 1
Journal Articles Inclusion and Exclusion Process

Studies generated through advanced search options were collected and organized according to databases. In the identification phase, the review began by collecting studies that explored emotion regulation (ER), yielding a total of 165 articles. During the screening phase, studies that were not implemented in the school setting, or those that did not introduce an intervention related to emotion regulation, were excluded, resulting in 11 studies.

The eligibility phase further refined the focus to studies specifically involving Asians as participants, narrowing down the selection to 3 articles. In the inclusion phase, studies that did not have adolescent participants were removed. This led to a final selection of 2 articles. Although few, these studies were chosen because they demonstrated both the utilization and implementation of emotion regulation programs specifically designed for Asian adolescents in school settings, aligning with the scope and purpose of the review.

Data Analysis. A total of two studies were included in the scoping review. The extracted data was analyzed through thematic analysis. The theoretical orientation, delivery approach, and reported outcomes were reported, focused on identifying key themes and gaps in the literature, highlighting the scope, effectiveness, and limitations of school-based emotion regulation programs for adolescents.

RESULTS

Emotion regulation has been identified in the literature through several studies. However, specific mechanisms underlying the utilization and implementation of therapeutic interventions or programs have not been explored in the context of adolescent mental health. After carefully screening and filtering the articles generated from the advanced search, a total of two studies were included in this scoping review. Table 2 provides a description of the included studies, categorized according to the year, country, type of study, participants, theoretical framework of the intervention provided, and how the intervention was implemented.

The READY-Nepal and REAL™ Module (Ramaiya et al., 2022; Baharuddin et al., 2025) can be considered as exemplars in the implementation of school-based emotion regulation programs among Asian adolescents. Each program will be discussed thoroughly, highlighting their methods, implications, program components, and limitations.

Table 2
Characteristics of school-based emotion regulation programs for Asian adolescents

Authors	Year	Country	Title	Study Design	Participants	Intervention/Strategies used	Program/Service
Ramaiya et al.	2022	Nepal	Feasibility and Acceptability of a School-Based Emotion Regulation Prevention Intervention (READY-Nepal) for Secondary School Students in Post-Earthquake Nepal	Mixed-method, non-randomized controlled trial	102 Nepali secondary school students aged 13–17 years old from a heavily affected post-earthquake district.	School-based Emotion Regulation Prevention Intervention (READY-Nepal), stemming from Dialectical Behavior Therapy (DBT) principles Strategies discussed included: -Introduction to emotions and emotion regulation -Identifying and labeling emotions -Mindfulness skills -Distress tolerance -Anger management -Interpersonal skills and effectiveness -Problem solving and coping	READY-Nepal comprises 8 group sessions, which were provided twice a week over four weeks. Each session is approximately 50 minutes in length, and alternative delivery formats are possible. The intervention was designed to help adolescents with their emotion regulation, especially during stressful situations.
Baharuddin et al.	2025	Malaysia	The effectiveness of the REAL™, a school-based, virtual reality-integrated social emotional learning intervention to promote mental health for early Malaysian adolescents	Randomized controlled trial	226 participants, aged 13–14 years old from Selangor, Malaysia	REAL™ Module, which was designed to discuss social and emotion learning (SEL) skills Strategies discussed included: -Identifying and labeling primary emotions -Cognitive appraisal; -expressive suppression -Diaphragmatic breathing -Muscle relaxation	REAL™ module was delivered using virtual reality (VR) components. It has four chapters and was delivered for a total of 12 sessions using virtual reality which included structured games, scenarios, and roleplays. Sessions lasted for at least three hours, with two hours being allotted to virtual reality (VR) activities, and another hour for two additional activities.

READY-Nepal (Ramaiya et al., 2022). This study explored the feasibility of an emotion regulation intervention program for adolescents who were recently exposed to a humanitarian disaster (earthquake), utilizing a mixed-method non-randomized controlled trial conducted in a post-earthquake district in Nepal. The participants were 102 secondary school students (ages 13–17) which were divided into the intervention ($n = 42$) and control ($n = 60$) groups. The intervention program is characterized by Dialectical Behavior Therapy (DBT) principles, delivered over eight sessions. Data were collected through emotion regulation as the primary outcome, and symptoms of anxiety, PTSD, functional impairment, resilience, and coping skills as secondary outcomes which are measured during baseline and four weeks after the intervention. Qualitative data were gathered through interviews with students ($n = 15$), teachers ($n = 2$), and caregivers ($n = 3$) to assess the acceptability and feasibility of the intervention. Findings imply possible feasibility and acceptability of the program, as evidenced by the high mean attendance rate, together with a

low dropout rate across the sessions. Moreover, regulation techniques were found to be more effective as well.

In terms of limitations, the program has a short follow-up period of four weeks, limiting the long-term efficacy of the intervention. There are also limited outcome changes, as no statistically significant findings were found in comparison of the experimental and control groups in terms of primary and secondary outcomes. Most importantly, the program's mindfulness components were less received by the participants as compared to the regulation techniques/skills, which could necessitate cultural adaptation.

Program Components of READY-Nepal. READY-Nepal is grounded in Dialectical Behavior Therapy (DBT), a third-wave cognitive-behavioral therapy that emphasizes emotion regulation, distress tolerance, mindfulness, and interpersonal effectiveness. The researchers chose DBT for its cultural adaptability and alignment with Nepali ethnopsychology, especially among concepts like *man* (heart-mind) and *dimaag* (brain-mind), which reflect emotional and rational domains of the self.

The program was delivered to secondary school students for a period of eight sessions weekly, through a group-based session in a school setting facilitated by lay counselor/paraprofessionals with mental health experience. Each session is anchored in DBT skills with cultural/developmental appropriateness.

Sessions include topics in relation to the introduction to emotions and emotion regulation, identifying and labeling emotions, mindfulness skills, distress tolerance, anger management, interpersonal skills and effectiveness, problem solving and coping, and review/consolidation.

The strategies for activities are role plays, group discussions, visuals such as posters, worksheets, and emotion cards, language adaptation, and cultural sensitivity.

The outcomes are characterized by students appreciating anger regulation and problem-solving skills, mindfulness was perceived as abstract, and suggestions included more relatable examples and visual materials.

REAL™ Module (Baharuddin et al., 2025). The study looked into the effectiveness of the intervention in terms of improving emotion regulation skills, depression, and anxiety among Malaysian adolescents. It employed a randomized controlled trial, where a total of 226 Malaysian adolescents aged 13 - 14 years old from Selangor, Malaysia were assigned to the intervention group, who took the program, and the control group. Measures such as the Difficulties in Emotion Regulation Scale (DERS), Beck Depression Inventory (BDO), and the Beck Anxiety Inventory (BAI), which were all translated into Malay language, were administered during four time periods: during baseline, after the intervention, 3 months after, and 6 months after.

Results from the study show that participants who took the REAL Module showed significant improvements in terms of emotion regulation, depression, and anxiety scores. Moreover, these results were maintained even after six months.

The study provides evidence that school-based SEL programs are effective, helping improve school mental health, specifically in terms of emotion regulation, depression, and anxiety. These improvements were also shown to have been sustained six months after the training, suggesting a possible long-lasting effect. Moreover, it also highlights the importance of localizing a program to fit the culture of the participants, which could help further improve its effectiveness. Findings from the study also suggest the importance of incorporating virtual technology into such interventions.

In terms of limitations, the use of virtual technology in programs might not be easily accessible for other schools who might want to develop their own program. On top of this, the program was measured using purely

quantitative data. Using qualitative data from the participants and the facilitators could provide additional insights in terms of the program's effectiveness. Another limitation of the study pertains to its generalizability, given that the study was done in a single state.

Program Components of the REAL™ Module.

The REAL™ (Read Emotions and Learn to Regulate) program was designed by a research team of psychiatrists, child and adolescent psychiatrists, developmental psychologists, educators, and SEL experts, developed to help students learn social and emotional learning (SEL). The intervention was adapted to fit the Malaysian culture and delivered incorporating virtual reality. The intervention has four chapters delivered over 11 sessions, including a reflective session, for a total of 12 sessions, which was given by a trained facilitator. The modules also included shared experiences of Malaysian adolescents, interspersed with elements of the Malaysian culture to make the modules localized and more relatable to the participants. Additionally, the intervention was delivered using virtual reality to help increase engagement throughout the program, highlighting adolescents' interest in digital technology.

Participants engage in three scenarios where a student navigates common emotional and interpersonal challenges. Throughout the scenarios, they learn to identify their primary emotions with peer support; use cognitive reappraisal in response to perceive social rejection; and learn self-regulation skills through diaphragmatic breathing and muscle relaxation.

DISCUSSION

This scoping review is consistent with the current literature which recognizes adolescence as a stage of maladaptive shift in emotion regulation (Cracco et al. 2017; Fombouchet et al. 2023). Adolescence is characterized by increased emotional reactivity and reduced regulatory control, which affects mental health and academic performance

(Cracco et al. 2017). Similarly, Bailen et al. (2019) found emotional intensity and instability in this period of development, which supports this scoping review's focus on school mental health. However, the current review moves beyond advocating for interventions and programs within school systems.

The review's findings are consistent with emotion dysregulation as a transdiagnostic risk factor for common mental health concerns such as depression, anxiety, and borderline personality disorder (Berking & Wupperman 2012; McLaughlin et al. 2011). The inclusion of the READY-Nepal and REAL™ programs in the review support this by showing that interventions targeting emotion regulation do not just help improve adolescents' emotion regulation skills but can also help reduce symptoms of depression and anxiety (Baharuddin et al. 2025). Localizing these interventions to fit the context of participants seems promising as well, highlighting the importance of cultural appropriateness when creating, developing and designing intervention programs.

While Berking & Wupperman (2012) provided a clinical understanding, this review focused on preventive school-based approaches, suggesting a shift from treatment to early intervention. This is equally important in the context of educational administration and public health in countries such as the Philippines.

Academic implications are highlighted in this review, as supported by the current trend of emotion regulation research. The studies collectively expound on the adaptive strategies for emotion regulation such as cognitive reappraisal, which is associated with lower anxiety in tests and better academic outcomes. On the other hand, maladaptive strategies, such as suppression, is linked to academic stress and underperformance (Pekrun 2017; Putarek & Pavlin-Bernardić 2020; & Teixeira et al. 2021). This suggests that school-based programs serve as a protective factor against stressors related to academics. However, this review focused on interventions and programs

particularly in the Asian context rather than providing large correlational/longitudinal studies, which can help guide future research on varied areas of gaps.

The review's inclusion of the READY-Nepal and REAL™ Module reflects the findings of Pedrini et al. (2022) and Pickerell et al. (2023), that third wave action-oriented therapeutic interventions such as CBT and DBT are effective in increasing emotion regulation and decreasing risky behaviors. Moreover, mindfulness-based interventions (MBIs) have moderate effects on emotional awareness and depression, especially when delivered over longer durations.

As cultural adaptations are key moderators of mindfulness (Pickerell et al. 2023), which then challenges the cultural resonance of READY-Nepal. On the other hand, the REAL™ program's SEL aligns with Pedrini and colleague's (2022) emphasis on innovations for the delivery of emotion regulation interventions. Broader well-being outcomes is linked to emotion regulation as well as social support and resilience, which significantly predicts adolescent life satisfaction and psychological well-being (Azpiazu Izaguirre et al. 2021; & Morrish et al. 2018).

The scoping review reveals that these protective factors are underutilized in program development, particularly in the Filipino context. A gap now emerges from the findings of this emotion regulation scoping review: current studies may not explore culture-specific contexts and applications of emotion regulation interventions, let alone the integration of social-ecological factors such as peer support, family dynamics, and cultural values—an area that is relevant among Asian populations. Current trends do not show enough evidence for the utilization of intervention programs for Asian adolescents.

Although this review highlights the gap that exists in school-based emotion regulation programs for Asian adolescents, the review's limited sample size of reviewed studies (n=2)

restricts the depth of comparative analysis and generalization. This limitation is acknowledged in the review and is consistent with the broader literature's (e.g., Gross, 2015) call for more culturally diverse and context-specific research on emotion regulation — a gap that now exists in the trend of emotion regulation studies.

Conclusion. The review's use of the Arksey & O'Malley (2005) and Levac et al. (2010) frameworks and adherence to PRISMA-ScR (Tricco et al., 2018) ensures transparency and rigor of the inclusion and exclusion of studies. This scoping review is aligned with the broader literature on school mental health among adolescent populations and school-based interventions. It confirms existing outcomes of studies on the developmental challenges of adolescence (Cracco et al., Bailen et al.), the mental health risks of emotional dysregulation (McLaughlin et al., Berking & Wupperman), and the academic implications of emotional intelligence (Pekrun, Putarek & Pavlin-Bernardić).

This scoping review offers concrete guidance on how to better direct research, interventions, and mental health programs toward Asian adolescents, a demographic that remains significantly underrepresented in scholarly and clinical efforts. By analyzing the limited number of eligible studies, the review highlights a pressing gap in culturally sensitive, school-based emotion regulation initiatives across Asia, with emphasis on the Philippines.

The findings underscore the urgent need for programs that go beyond generic, imported models of mental health support. Instead, they should be both evidence-informed and culturally attuned, meaning they must reflect the lived experiences, values, and indigenous psychological frameworks of the communities they aim to serve.

Specifically, the review advocates for the integration of native concepts such as those rooted in Filipino psychology and the communal realities of adolescents in the region. This

approach ensures that interventions are effective and sustainable within their cultural context.

Recommendations. This scoping review aims to provide recommendations on school-based emotion regulation programs for Asian adolescents, which could help educators and mental health professionals in providing better care for adolescents. Below are recommended:

1. Design evidence-based emotion regulation programs that are culturally appropriate. There is a dearth in terms of published studies that explore school-based emotion regulation programs developed within the Asian context, particularly for Filipinos. Having seen its effectiveness when localized, designing emotion regulation programs that are culturally appropriate for Filipinos can help in the development of emotion regulation skills among Filipino adolescents, helping them thrive in school and improve their mental health.
2. Expand emotion regulation research in the Southeast Asian population. The majority of the literature on emotion regulation stems from Western countries. With this, expanding its research base in the context of Southeast Asia, particularly Filipinos, will be helpful.
3. Include emotion regulation in school curriculums through the support of the Department of Education (DepEd).
4. Use mixed-methods design in emotion regulation research. Exploring emotion regulation using longitudinal research designs can help assess the sustainability of school-based emotion regulation programs.
5. Explore the integration of technology in designing school-based emotion regulation programs. The REAL™ Module shows the potential of including virtual reality in such interventions to help increase engagement from the participants. While this needs to be further looked into, program developers can

include such technology in the program design.

6. Train and Empower School Staff. Teachers, guidance counselors, and other front-line responders should be trained to deliver emotion regulation interventions. Capacity-building programs and training can ensure fidelity of planning, implementation, and monitoring to provide ongoing support for education staff in facilitating these programs.
7. Include Social Support and Resilience Components. As supported by Azpiazu Izaguirre et al. (2021) and Morrish et al. (2018), emotion regulation is closely linked to social support and resilience. Future counseling interventions must incorporate peer support systems, engagement of families, and community-based resilience-building activities.

Broaden Inclusion Criteria in Future Reviews. To capture a more comprehensive picture of existing efforts, future scoping or systematic reviews should include theses, NGO reports, and other forms of publications. This may uncover local or unpublished programs already being implemented in Philippine schools that do not heavily rely on journal articles.

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