A SYSTEMATIC REVIEW ON THE RELATIONSHIP BETWEEN EMOTIONAL REGULATION AND PSYCHOLOGICAL WELL-BEING IN HIGHER EDUCATION

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(Received 05th July 2024; revised 28th August 2024; accepted 21st November 2024)

Abstract. This systematic review examines the relationship between emotional regulation (ER) and psychological well-being (PWB) in higher education from 2019 to 2024. It focuses on how emotional regulation strategies impact students' and teachers' psychological well-being and academic performance in higher education. The review synthesizes findings from 63 studies across multiple countries, highlighting both adaptive and maladaptive ER strategies. Methodologically, most studies employed quantitative approaches with a few utilizing mixed or qualitative methods. The findings consistently show that better ER skills correlate with lower stress and improved psychological outcomes. Additionally, demographic factors and contextual factors like the COVID-19 pandemic significantly moderate these relationships. The review emphasizes the importance of adaptive ER strategies for both students and teachers in higher education, recommending further research to explore more mediating and moderating factors, and suggesting the inclusion of more diverse samples to enhance generalizability.
Keywords: *systematic review, emotional regulation, psychological well-being, higher education*

Introduction

The relationship between emotional regulation (ER) and psychological well-being (PWB) in higher education has garnered significant attention. Ahamed Elsayes and Mohamed Abo-Elyzeed (2021) indicated that students with stronger emotional regulation skills are better able to maintain their psychological well-being under academic stress. These students typically exhibit higher emotional awareness and control, which enables them to employ more effective coping strategies when facing challenges. Specifically, in higher education, cognitive emotional regulation strategies play a crucial role in managing emotional responses. Adaptive strategies like positive reappraisal are linked to optimism, self-esteem, and psychological well-being, whereas maladaptive strategies such as rumination and self-blame are associated with emotional issues and reduced psychological functioning. For instance, effective strategies like cognitive reappraisal help manage emotions, fostering positive states such as joy and optimism, which enhances student engagement, crucial for active participation and successful learning, particularly in language acquisition. Positive emotional states reduce stress and anxiety, further boosting academic outcomes and overall well-being. Emotional regulation is essential for managing stress and improving academic performance in higher education. Implementing effective emotional regulation skills helps students cope with academic pressures and fosters resilience, which is vital for sustaining long-term well-being in the academic environment. Additionally, strong interpersonal relationships, supported by adaptive emotional regulation, significantly contribute to students' overall happiness.

Especially during adverse situations like the COVID-19 pandemic, Cunha et al. (2022) found positive associations between cognitive reappraisal, a key emotional regulation strategy, and higher levels of subjective happiness and life meaning. Conversely, emotional suppression was found to negatively impact subjective happiness. De La Fuente et al. (2022) emphasized the importance of high levels of self-regulation and effective external regulation in reducing academic stress and promoting psychological well-being. However, previous studies have not systematically analysed the relationship between emotional regulation and psychological well-being in higher education. Higher education features unique competitiveness, an achievement-oriented focus, and a strong emphasis on knowledge and academic skills. The effects of emotional regulation and psychological well-being on both students and teachers in this context are more intricate and significant. Therefore, a systematic review of emotional regulation and psychological well-being in higher education is needed to address this research gap.

Materials and Methods

In the initial literature search, conducted on May 15, 2024, five major bibliographic databases were utilized: Scopus, Web of Science, SpringerLink, Taylor& Francis, and SAGE. The search employed Boolean operators (i.e., AND/OR) and included the keywords “emotional regulation” OR “emotional dysregulation” OR “emotional distress” in conjunction with “psychological well-being” OR “mental well-being” OR “mental health” and “higher education” OR “college students” OR “university students”. The search was specifically confined to studies published from 2019 to 2024. A comprehensive search was conducted across multiple databases to gather documents on emotional regulation and psychological well-being in higher education. Scopus yielded 938 open-access articles, and limited to psychology, social sciences, and health professions. The Web of Science (WOS) search found 746 articles with similar criteria, refined to open-access articles in English within the last five years. ScienceDirect provided 333 research articles from social sciences and psychology, focusing on open access. Taylor & Francis Online yielded 518 articles restricted to those with full access, focusing on education and higher education. JSTOR added 97 journal articles in education in English. A total of 2,754 documents were found, and 63 studies were included in the final review.

Specifically, this study used the PRISMA technique, which is mainly used for systematic literature and meta-analysis (*Figure 1*), in order to thoroughly review the current literature to identify research topics and determine an agreed-upon theoretical framework. PRISMA is a commonly used, standardized methodological technique that ensures transparency and reproducibility of research. In addition, Rayyan which is a web-based automated screening tool was used to import citations as it supports imports from RIS format. Initially, citations were imported from EndNote format (.enw), but it did not work properly in this current study. Kellermeyer et al. (2018) stated that the import of RIS formats worked best across platform. Thus, after completing the literature search across the five bibliographic databases, all identified citations (.ris format) are imported into Rayyan. Ouzzani et al. (2016) reported that its user-friendly design and completely free access have made it popular among users. Duplicates are then identified by clicking the button “Detect Duplicate” and removed and resolved manually (N=42). Following the removal of duplicates, the titles and abstracts of the remaining citations

are reviewed to preliminarily assess their suitability for inclusion in this review (N=2580). Since most articles imported into Rayyan display the title and abstract directly, filtering can be done by pressing the "include," "exclude," or "maybe" button to determine their involvement in the final review. However, some articles require manual screening by finding them on the journal website when their abstracts are not visible on Rayyan. Once the relevance of these articles is assessed and deemed potentially suitable, their full texts are retrieved for further evaluation to confirm eligibility for the final review. The criteria for the selected studies are as follows: (i) the study must be written in English, (ii) it must be published in a peer-reviewed journal. Additionally, the study excludes: (i) review papers, and (ii) conference papers.

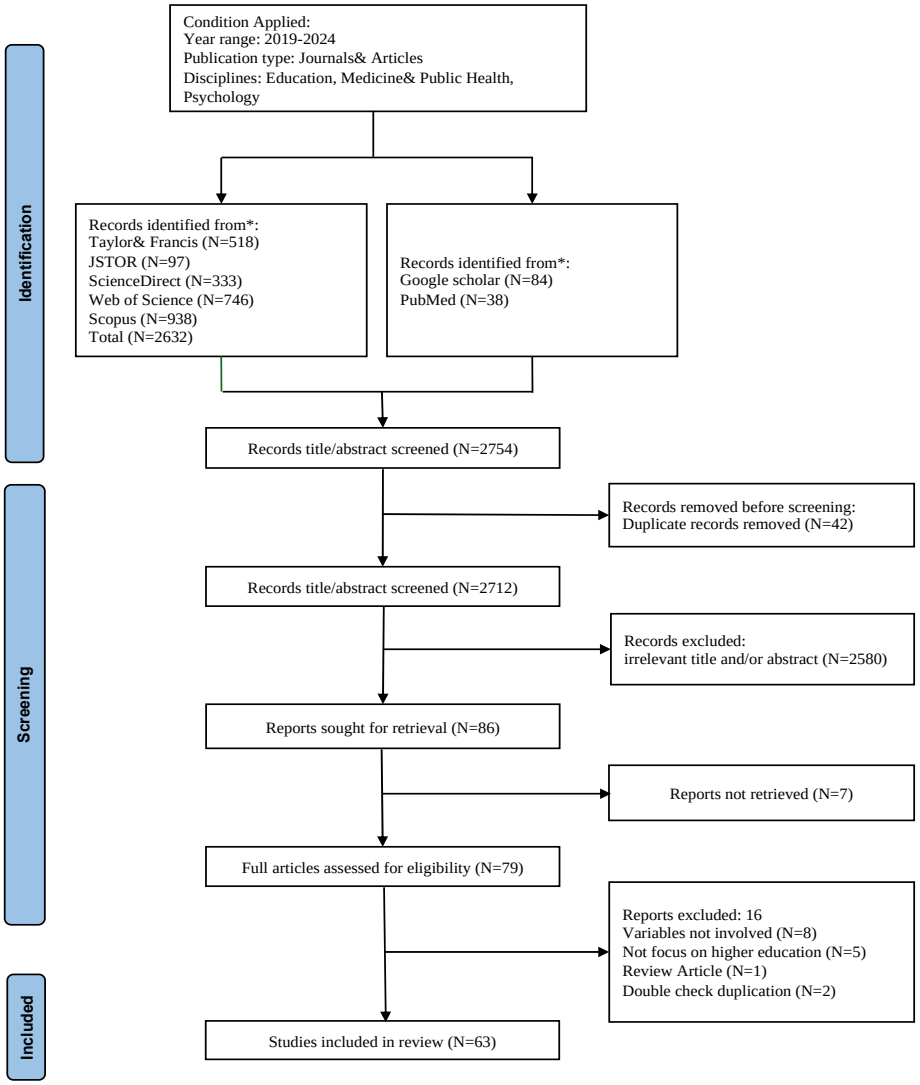

Figure 1. *Flow of information through the different phases of a systematic review.*

Results and Discussion

This study provides a systematic review of the relationship of emotional regulation and psychological well-being within higher education from 2019 to 2024. Out of the 63

studies analysed, 60 employed quantitative methods to investigate the relationship of psychological well-being and emotional regulation. These studies provided quantifiable data on the relationship between emotional regulation and psychological well-being. The limited use of mixed methods may be attributed to their inherent complexity, the substantial resources they require. Only two studies utilized mixed methods, integrating both quantitative and qualitative data to offer a more comprehensive understanding of the relationship between emotion regulation and psychological well-being. These studies underscore the pivotal role of emotion regulation and psychological well-being within educational settings. Martinović and Dumančić (2022) emphasize the challenges posed by online teaching and its implications for teachers' mental health, particularly in relation to managing workload and securing organizational support. Greenier et al. (2021) illustrate the significant influence of emotion regulation and mental health on teachers' work engagement, with pronounced variations across different cultural contexts.

The remaining two studies adopted qualitative methods and convenience sampling to examine the role of emotion regulation among language teachers. Both studies underscored the critical role of emotion regulation in educational contexts. Talbot and Mercer (2018) focused on the individual strategies teachers adopt to manage their well-being in response to specific stressors, whereas Gkonou and Miller (2023) emphasized the collaborative nature of emotion regulation, particularly in fostering stronger teacher-student relationships. Both studies highlighted the significance of emotion regulation in achieving positive outcomes for educators and learners across various international contexts (*Table 1*).

Table 1. *Research methodology of the included literature.*

Quantitative	Mixed-method	Qualitative
Ahamed Elsayes and Mohamed Abo-Elyzeed (2021)	Martinović and Dumančić (2022)	Talbot and Mercer (2018)
Akfirat (2020)	Greenier et al. (2021)	Gkonou and Miller (2023)
Alazemi et al. (2023)		
Bing et al. (2022)		
Brites et al. (2024)		
Chen et al. (2022)		
Cunha et al. (2022)		
De La Fuente et al. (2022)		
Dong et al. (2024)		
García-Álvarez et al. (2021)		
Graça and Brandão (2024)		
Gustems-Carnicer et al. (2020)		
Guzmán et al. (2023)		
Hu (2023)		
Idris et al. (2019)		
Ismail et al. (2023)		
Jurisevic et al. (2021)		
Khoshfetrat et al. (2022)		
Krifa et al. (2022)		
Kryshko et al. (2022)		
Lazić et al. (2021)		
Li et al. (2022a)		
Li (2023)		
Li et al. (2022b)		
Liu et al. (2023)		
Ma and Liu (2024)		
Mange et al. (2021)		
Marco et al. (2021)		
Martel and Santana (2021)		
Mercader-Rubio et al. (2023)		
Morales-Rodríguez (2021)		
Ok-Ju (2020)		
Ong and Thompson (2019)		
Park et al. (2020)		

Pellegrino (2019)
Pérez-Marín et al. (2024)
Plantade-Gipch et al. (2023)
Ramadan et al. (2022)
Renati et al. (2023)
Restrepo et al. (2023)
Rogier et al. (2019)
Salimzadeh et al. (2020)
Sha et al. (2022)
Shek et al. (2023)
Tasneem and Panwar (2022)
Tekin (2021)
Temircan (2023)
Thomas and Zolkoski (2020)
Ting and Essau (2021)
Karaarslan and Sarioguz (2021)
Wang (2023)
Weidberg et al. (2023)
Xiaoli and Veloo (2024)
Xiyun et al. (2022)
Younas et al. (2023)
Zaman et al. (2021)
Zarotti et al. (2020)
Zhou and Zheng (2022)
Zsido et al. (2022)

Methodological information of the studies

This section provides the methodological details of the 63 studies included in this review, as illustrated in *Table 1*. Most of the studies reviewed were conducted in China (n=13). Although relatively fewer in number, some studies were also conducted in other countries such as Spain (n=7), Turkey (n=3), United States (n=3), Iran (n=3), Pakistan (n=2), Italy (n=2), Canada (n=1), Egypt (n=2), Malaysia (n=2), France (n=2), Portugal (n=2), UK and Iran (n=1), India (n=1), United States, Japan, Austria (n=1), Hong Kong (n=2), Spain and Portugal (n=1), UK (n=1), Colombia (n=1), Croatia (n=1), Serbia (n=1), South Korea (n=1), Germany (n=1), Tunisia (n=1), Ireland (n=1), Slovenia (n=1), Chile (n=1), US, UK, Germany and Norway (n=1), Venezuela (n=1), Brazil (n=1), and Hungary (n=1). It can be seen that Asia has produced 27 articles, Europe follows with 24, North America has 5, South America has 4, and Africa has 3. Oceania and the multi-continental category, which encompasses the United States, the United Kingdom, Germany, and Norway, each have only 1 article. This distribution indicates that research activities are most prolific in Asia and Europe, while Oceania and the multi-continental category have the fewest articles (*Figure 2*). The following map, generated in Excel, clearly illustrates the country distribution of the research production. The diverse range of research facilitates the acquisition of comprehensive data and insights from various cultural and healthcare systems. Numerous studies involve international collaboration, as exemplified by joint efforts between countries such as the United States, Japan, Austria, Spain, and Portugal. This underscores the critical role of global cooperation in research, enhancing the scope and depth of studies through the exchange of resources and expertise. Additionally, it highlights the global academic significance of this subject. The findings from these studies can be disseminated and utilized across different regions and cultural contexts, thereby influencing worldwide medical practices and policies.

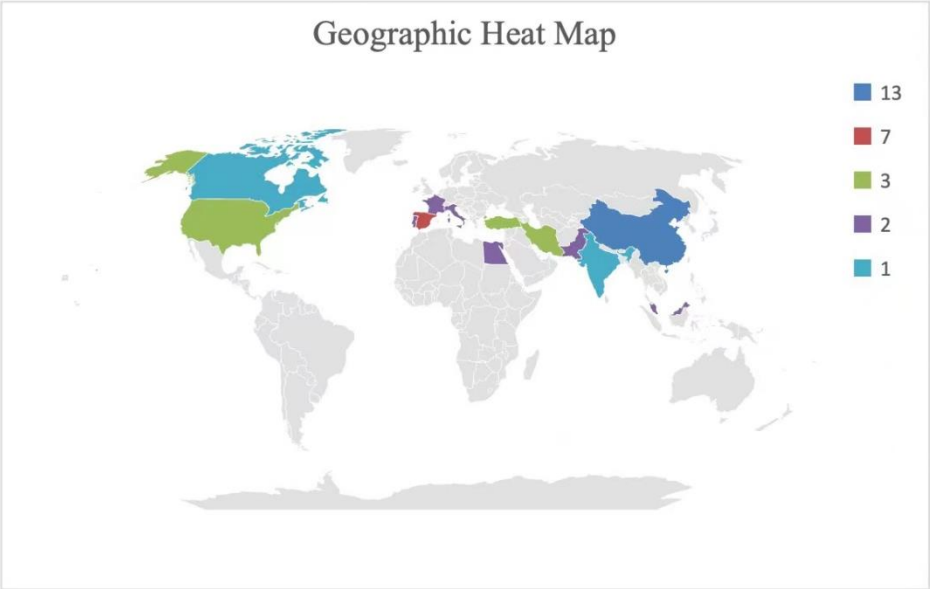

Figure 2. *Geographic Heat Map.*

Regarding sampling methods, the most reported sampling method is convenience sampling (n=43).Three studies employed simple random sampling. Three studies employed purposive sampling. Three studies used snowball sampling. One study conducted cluster sampling (n=1). Among the studies included in the current review, the three most frequently employed measures for emotional regulation are Gross and John (2003) Emotion Regulation Questionnaire (ERQ) (n=24), Gratz and Roemer (2004), Difficulties in Emotion Regulation Scale (DERS) (n=8), and Garnefski et al. (2001) Cognitive Emotion Regulation Questionnaire (CERQ) (n=5). Interestingly, all three instruments have been used in Pellegrino's research. Most of the reviewed studies have employed global measures for psychological well-being is Ryff (1989) Psychological Well-Being (PWB) (n=8), Diener et al. (1985) Satisfaction with Life Scale (SWLS). WHO-5 Well-being Index, which was first introduced in 1998 as part of the World Health Organization's efforts to create simple and effective tools for assessing mental well-being: Diener et al. (1985) Flourishing Scale (FS).

In examining the direct relationship between emotional regulation and psychological well-being, several studies have employed different statistical analyses. Specifically, 37 studies conducted correlation analysis. This method measures the direction and strength of the relationship between two variables (emotional regulation and psychological well-being). Additionally, 36 studies utilized regression analysis, which quantifies the change in the outcome variable when the predictor variable changes. Some studies have used both correlation and regression analyses (n=15). The majority of studies that conducted thematic analysis used ANOVA, while a few studies utilized MANOVA, Nvivo 12, and Atlas.ti. Furthermore, mediation analysis was conducted in 13 studies, which identifies the variable transmitting the effect of emotional regulation to psychological well-being. Moderation analysis, used in 3 studies, identifies variables that can alter the direction or magnitude of the relationship between emotional regulation and psychological well-being. Lastly, two studies employed both mediation and moderation analyses. Furthermore, some studies have extended beyond basic mediation or moderation analyses by employing moderated mediation analysis (n=1). This statistical method integrates mediation and moderation analyses, allowing researchers to determine if the

indirect effect of a predictor variable on the outcome variable through an intervening variable varies depending on context or individual differences. The findings of the studies reviewed regarding the relationship between emotional regulation and psychological well-being are presented and discussed in the subsequent section.

Relationship between emotional regulation and psychological well-being in higher education

Regardless of the study design, the relationship measures between emotional regulation and psychological well-being were statistically significant and positive in all 63 studies included in this review. Specifically, studies that conducted correlational analyses found a positive relationship between emotional regulation and psychological well-being (n=18). Among the reviewed studies, most employed regression analysis found a positive relationship between emotional regulation and psychological well-being (n=15). However, Tasneem and Panwar (2022) had found that the correlation between emotional regulation and psychological well-being was found to be non-significant, with a correlation coefficient (r) of 0.04 (*Figure 3*). Despite aligned previous empirical support for the positive relationship between emotional regulation and psychological well-being, scholars have emphasized that this relationship is not direct and mediated by other variables. Cognitive reappraisal and positive psychological capital moderated the relationship between the perceived stress and depression, reducing the impact of stress on depression among students. Coping behaviors mediated the effects of the COVID-19 pandemic on physical health, psychological health, and overall well-being. These studies have corroborated these notions, finding mediated relationships between emotional regulation and psychological well-being. The following paragraphs will present selected empirical evidence from studies included in the current review, illustrating these mediated relationships.

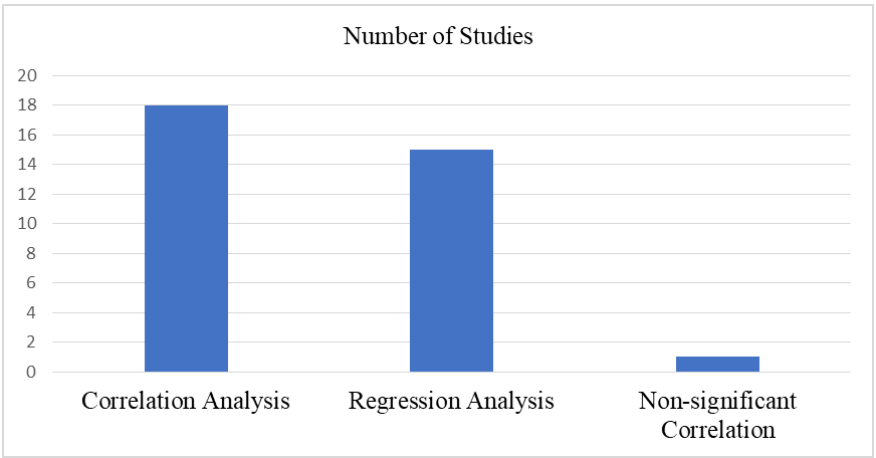

Figure 3. *Number of studies of positive and direct relationship between variables by analysis type.*

Similarly, Salimzadeh et al. (2020) demonstrated that cognitive reappraisal benefits health, while suppression and other maladaptive strategies for downregulating emotions are detrimental. Krifa et al. (2022) found that optimism could mediate the relationship between emotional regulation and psychological well-being. They observed that elevated levels of emotional regulation and optimism had a negative impact on stress, anxiety, and depression. Optimism partially mediated the relationship between

emotional regulation and anxiety/depression and completely mediated the relationship between emotional regulation and study engagement. Chen et al. (2022) demonstrated that emotional regulation indirectly influences happiness and resilience through the sequential mediating roles of learning motivation and target positioning. Interestingly, adaptive upregulation of positive emotions and adaptive downregulation of negative emotions did not significantly predict well-being, contrary to some previous studies. In addition, higher emotional regulation reduces the negative impact of depression on life satisfaction. Pellegrino (2019) also observed that positive emotional regulation strategies, such as cognitive reappraisal, are positively associated with better college adaptation. Conversely, difficulties in emotional regulation and the use of expressive suppression are negatively associated with college adaptation. Similarly, positive cognitive-emotional regulation strategies and social support mitigate the adverse impact of stress on adjusting to university life. Conversely, negative regulation strategies exacerbate the impact of stress on adaptation. There is a negative correlation between perceived stress and emotional regulation, and metacognition. Higher use of cognitive reappraisal (Emotional Regulation) (β=-0.42, $p<0.001$) was associated with lower stress levels. In the same vein, emotional intelligence (EI) and cognitive reappraisal play a crucial role in enhancing resilience, which subsequently lowers perceived stress. Resilience acts as a mediator in the relationship between EI, emotional regulation, and perceived stress.

Additionally, Karaarslan and Sarioguz (2021) have proved that compared to expressive suppression; cognitive reappraisal had a slightly more positive indirect effect on psychological well-being. Similarly, positive strategies like reappraisal, perspective-taking, acceptance, and planning are linked to increased well-being. Furthermore, during the lockdown periods, adaptive emotional regulation skills are associated with lower levels of psychological distress among students. In the same vein, negative coping style and expressing panic about COVID-19 on social media were the most important predictors of psychological distress. Conversely, high levels of fear of COVID-19 and stress are linked to lower resilience and self-esteem, with cognitive restructuring as a coping strategy showing a negative correlation with fear of COVID-19. Meanwhile, Pérez-Marín et al. (2024) showed that the psychoeducational intervention led to significant reductions in stigma associated with mental health and suicide, as well as improvements in self-esteem, resilience, emotional regulation, anxiety, depression, stress, and suicide risk. The intervention demonstrated both direct and indirect effects on improving mental health indicators, suggesting a comprehensive approach to mental health education can have widespread benefits. Similarly, in a related area, Mange et al. (2021) explored the determinants of binge drinking among university students, emphasizing the multifaceted nature of these behaviours. Their findings suggest that effective prevention strategies should address both internal motivations and social influences (e.g., peer support, family functioning). Additionally, improving students' coping mechanisms and addressing negative metacognitions about alcohol use are crucial components in reducing binge drinking. Furthermore, Avoidance coping is linked to a higher incidence of suicidal behaviour, whereas cognitive reappraisal is linked to a decreased risk of suicidal behaviour among university students.

It becomes evident that addressing psychological distress and unhealthy behaviours among youth requires multifaceted interventions. Thus, a holistic approach that integrates these various elements is essential for effectively improving psychological well-being and reducing harmful behaviours among young populations. Scholars have

used different analytical methods above to study the relationship between emotional regulation and psychological well-being. These findings suggest a significant relationship where better emotional regulation skills are associated with lower stress and potentially better psychological well-being. Sha et al. (2022) found that higher levels of emotional intelligence (EI) were positively associated with increased subjective well-being (SWB) among university teachers. This aligns with previous research indicating that individuals with high EI are more adept at managing their emotions and sustaining positive interpersonal relationships, thus enhancing their SWB. Cognitive reappraisal mediates the relationship between EI and SWB. Cognitive reappraisal, which involves reinterpreting a situation to change its emotional impact, significantly predicted higher SWB. For example, enhanced emotional regulation skills were linked to better protection against job-related stressors, resulting in improved self-efficacy, resilience, and more positive attitudes towards teaching. Teachers who effectively manage their emotions are more capable of coping with stress and challenges in the educational setting, resulting in higher job satisfaction and improved professional performance. Similarly, cognitive reappraisal has a more substantial positive effect on emotional regulation than expressive suppression, highlighting that encouraging teachers to positively reframe negative situations can enhance their emotional regulation and overall well-being. In contrast, expressive suppression, did not significantly predict SWB. Additionally, psychological capital (PsyCap) and the emotional regulation strategy of reappraisal positively influence teachers' enjoyment in online teaching, which is linked to better psychological well-being.

Psychological well-being (PWB) serves as a mediator between emotional regulation and burnout. Greater PWB is linked to reduced negative burnout and enhanced professional efficacy for university teaching staff. And higher levels of emotional regulation are associated with lower burnout for EFL teachers. Idris et al. (2019) found out resilience strongly predicts psychological well-being (PWB), accounting for 48.2% of the variance in PWB. Li (2023) had found that teacher self-efficacy and resilience are directly and negatively associated with teacher burnout, with teacher emotional regulation indirectly affecting burnout through the mediation of teacher resilience. And effective emotional regulation promotes the use of adaptive emotional labor strategies, thereby contributing to teacher resilience. It can be seen that both teachers and students gain from using cognitive reappraisal as an emotional regulation strategy. For teachers, cognitive reappraisal significantly predicts higher subjective well-being and is more effective than expressive suppression. Similarly, for students, cognitive reappraisal is linked to lower stress levels and better psychological health. Expressive suppression does not significantly impact subjective well-being for teachers and is negatively correlated with college adjustment and well-being for students. Specifically, teachers with stronger emotional regulation skills experience lower burnout, while students with better emotional regulation skills report lower stress levels. For students, situational stressors, particularly the COVID-19 pandemic, have had a significant impact, highlighting the effect of unforeseen environmental changes on psychological well-being among university students. High levels of fear and stress due to COVID-19 are associated with lower resilience and self-esteem, and cognitive restructuring negatively correlates with fear levels. For teachers, Li (2023) emphasized that self-efficacy and resilience are directly related to burnout, with emotional regulation indirectly affecting burnout through resilience. Additionally, for teachers, adaptive coping, social

engagement, and well-being over time predict the use of more adaptive coping strategies.

University teachers and students benefit from positive emotional regulation strategies, especially cognitive reappraisal, which is associated with improved mental health and reduced stress. However, the contexts in which these strategies are effective differ. Teachers' well-being is influenced by factors like psychological capital and resilience, whereas students' well-being is significantly affected by situational stressors such as the COVID-19 pandemic. Additionally, regardless of the teachers and the students, the age difference has been clarified. For example, Guzmán et al. (2023) explored age-related differences among teachers, finding that older teachers reported more positive emotions, higher well-being, and more perceived social support, whereas younger teachers experienced more negative emotions and higher levels of burnout. Additionally, social engagement and eudaimonic well-being predict the use of adaptive coping strategies over time, which aligns with older students' higher well-being. This implies that engaging in meaningful activities and maintaining social connections are crucial for developing and sustaining adaptive coping mechanisms. Similarly, Gustems-Carnicer et al. (2020) observed that younger students used more avoidant strategies and experienced higher anxiety, while older students used more approach coping and achieved better academic performance. It can be inferred that age and experience play significant roles in determining the effectiveness of their coping strategies. Younger teachers and students could benefit from interventions aimed at promoting adaptive coping strategies and reducing reliance on avoidant behaviours. Additionally, fostering social support and engagement in meaningful activities could further enhance their well-being and performance. In summary, this section synthesizes findings from 63 studies, highlighting that effective emotional regulation strategies, such as cognitive reappraisal, are consistently linked to enhanced PWB, reduced stress. The studies demonstrate that higher emotional regulation skills correlate with better mental health outcomes, including increased self-efficacy, resilience, and positive attitudes towards teaching. Furthermore, PWB mediates the relationship between emotional regulation and burnout, suggesting that improving emotional regulation can significantly benefit mental health and professional performance. The review underscores the need for comprehensive interventions to address psychological distress and promote well-being, particularly in the face of challenges like the COVID-19 pandemic.

Demographic factors on the relationship between emotional regulation and psychological well-being

Research on gender differences in emotional regulation and psychological outcomes highlights several key findings. Guzmán et al. (2023) noted that men report higher well-being but also higher indolence and guilt, whereas women experience more psychological exhaustion. However, in the study by Li et al. (2022a), it is suggested that being male is associated with higher psychological distress. This does not necessarily mean that males are inherently less happy, but rather that they may experience higher levels of psychological distress due to various factors. Gustems-Carnicer et al. (2020) found that women tend to use more cognitive strategies but exhibit higher psychological distress. Despite this adaptive strategy, women still report higher psychological distress, suggesting that other factors may contribute to their overall mental health challenges. Similarly, Park et al. (2022) observed that women generally employ more adaptive strategies compared to men. Interestingly, Rogier et al. (2019) indicated that emotional

suppression is linked to psychological distress among women but not men, and flexibility in using different emotional regulation strategies is associated with better psychological outcomes, particularly aggression reduction, among men. This indicates that while men might generally feel better, they also struggle with specific negative emotions that could undermine their well-being. In contrast, women's higher psychological exhaustion could be due to greater emotional labor and cognitive strategy use. The findings underscore the importance of considering gender differences in emotional regulation research and interventions. While both men and women can benefit from adaptive strategies like cognitive reappraisal, women's higher psychological distress despite using these strategies suggests that additional support mechanisms may be necessary. Conversely, fostering flexibility in emotional regulation strategies can particularly benefit men by reducing aggression and improving psychological outcomes. Addressing these gender-specific needs in psychological interventions can help enhance well-being and reduce distress across different populations.

Sha et al. (2022) found that effort-reward imbalance can moderate the relationship between cognitive reappraisal and subjective well-being. In the study by Weidberg et al. (2023), moderated mediation analysis was used to investigate the relationships between past-month cannabis use, emotion dysregulation (ED), and mental health among young adults, with sex considered as a moderating factor. The findings indicated that the indirect effect of cannabis use on mental health outcomes through ED was significantly stronger in women than in men. Specifically, female cannabis users experienced higher levels of depression, anxiety, and stress due to their greater difficulties in emotional regulation, highlighting the need for sex-specific interventions targeting emotional regulation strategies to mitigate the mental health impacts of cannabis use. Apart from gender, Li et al. (2022b) found that being a 'left-behind child,' or having a monthly household income lower than 5000 CNY or higher than 20,000 CNY was associated with higher psychological distress as well. Interestingly, both extremely low and high family incomes, can contribute to heightened psychological stress.

In this review, a literature search resulted in the identification of 63 studies that met the inclusion criteria. Some studies also focused on identifying factors that can influence or regulate the relationship between emotional regulation and mental health. Therefore, future research should continue in this direction, exploring other potential regulatory factors. Most existing studies used well-validated tools to measure emotional regulation and mental health. In future research on the relationship between the two, these validated methods should continue to be used. Beyond the direct relationship, it was found that the impact of emotional regulation on psychological well-being varies due to individual differences and the context. Among the studies reviewed, most existing studies used well-validated instruments to measure emotional regulation and psychological well-being, a practice that should be continued in future research. Additionally, some studies have focused on identifying factors that mediate or moderate the relationship between emotional regulation and psychological well-being. Therefore, future research should explore other potential mediating or moderating factors in this relationship. Most studies used convenience sampling methods, as the samples were taken from easily accessible groups, making it difficult to obtain a representative sample set. The results of these convenience sampling studies cannot be generalized to the target population. Given these limitations, future research on the relationship between

emotional regulation and psychological well-being should use random sampling and include more diverse background samples to obtain more representative conclusions.

Conclusion

This study systematically reviews the relationship between emotional regulation (ER) and psychological well-being (PWB) in higher education, focusing on the period from 2019 to 2024. The review synthesizes findings from various studies to examine how ER strategies influence the psychological well-being and academic performance of both students and teachers. It also explores the role of demographic and contextual factors, such as the COVID-19 pandemic, in moderating the relationship between ER and PWB, with particular attention to both adaptive and maladaptive ER strategies. This study provides an aggregate view of the existing empirical evidence on the relationship between emotional regulation and psychological well-being by examining research designs, sampling techniques, sample characteristics, measurement scales, and data analysis techniques. By analysing 63 studies, the review highlights the consistent empirical support for the positive relationship between ER and PWB among students and teachers in higher education settings. The findings emphasize the importance of adaptive ER strategies, such as cognitive reappraisal, which are associated with reduced stress and improved psychological outcomes. Based on this, the study identifies areas worth retaining or further exploring in future research and highlights areas for improvement. This review underscores the critical role of effective emotional regulation in enhancing psychological well-being in higher education. It calls for continued research to explore additional mediating and moderating factors and recommends the use of diverse and representative samples in future studies. By addressing these areas, future research can further elucidate the intricate relationship between emotional regulation and psychological well-being. This research addresses a critical gap in the literature by providing a comprehensive analysis of the ER-PWB relationship within the highly competitive and achievement-oriented context of higher education. The study not only contributes to a deeper understanding of this complex relationship but also offers valuable insights for future research and practical recommendations for promoting psychological well-being in educational environments. Despite its contributions, this review has limitations. The predominance of convenience sampling in the studies limits the generalizability of the results. Future research should aim to use random sampling and include more diverse samples to enhance representativeness. Moreover, the review only included studies published in English, potentially overlooking valuable research in other languages. This approach may not be exhaustive, potentially missing some eligible research.

Acknowledgement

This research is self-funded.

Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

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