



Journal for Social
Science Archives

Journal for Social Science Archives

Online ISSN: 3006-3310

Print ISSN: 3006-3302

Volume 3, Number 4, 2025, Pages 504 – 521

Journal Home Page

<https://jssarchives.com/index.php/Journal/about>



Psychometric Properties and Cross-Language Availability of Emotion Regulation Scales in Clinical and Non-Clinical Populations: A Systematic Review

Motasem Mirza¹, Saima Abbas², Nabeela Sulaiman³, Momina Khushnood⁴ & Raheela Shahid⁵

¹MS Clinical Psychology, Department of Professional Psychology, Bahria University Lahore Campus, Pakistan, Email: motasimmirza7@gmail.com

²PhD Clinical Psychology, Graduate Research School, University of Cyberjaya, Malaysia, Email: saimatherapist5@gmail.com

³Assistant Professor, Department of Education, Virtual University of Pakistan, Email: Nabeela.sulaiman@vu.edu.pk

⁴Lecturer, Department of Psychology, National College of Business Administration & Economics, Bahawalpur Campus, Pakistan, Email: Meemominakhushnood@gmail.com

⁵M.Phil Applied Psychology, Former Lecturer in Bahauddin Zakariya University, Multan. Pakistan, Email: raheela50@gmail.com

ARTICLE INFO

Article History:

Received: September 15, 2025
Revised: October 07, 2025
Accepted: October 20, 2025
Available Online: November 04, 2025

Keywords:

emotion regulation, psychometric validation, cross-cultural adaptation, systematic review, clinical psychology

Corresponding Author:

Motasem Mirza

Email:

motasimmirza7@gmail.com

ABSTRACT

Background: Emotion regulation is a core transdiagnostic construct implicated in a wide range of psychological disorders and adaptive outcomes. Over the past decade, numerous self-report instruments assessing emotion regulation have been translated, validated, and applied across clinical and non-clinical populations worldwide. However, the psychometric robustness and cross-cultural equivalence of these measures have not been comprehensively synthesized.

Objective: This systematic review aimed to evaluate the psychometric properties, cross-cultural validations, and analytical use of emotion regulation scales in peer-reviewed studies published between 2000 and 2025.

Methods: Following PRISMA 2020 guidelines, systematic searches were conducted across PsycINFO, PubMed, Scopus, Web of Science, and Google Scholar. Eligible studies reported psychometric evaluation of emotion regulation self-report instruments in clinical or non-clinical samples. Data were extracted on reliability, validity, factor structure, measurement invariance, language adaptations, population characteristics, and the functional role of emotion regulation measures (predictor, outcome, mediator, moderator).

Results: Forty-six studies met the inclusion criteria. The most frequently validated instruments were the Difficulties in Emotion Regulation Scale (DERS), the Emotion Regulation Questionnaire (ERQ), the Cognitive Emotion Regulation Questionnaire (CERQ), and the Emotion Regulation Skills Questionnaire (ERSQ). On the whole, total-scale scores were found to be internally consistent and construct valid across populations and languages. The use of deficit-based measures was gaining support on the basis of factorial evidence of bifactor or hierarchical measures, whereas strategy-based measures retained theorized multidimensional designs. The general finding of both cross-cultural studies was the support of configural and metric invariance, but scalar invariance was inconsistently established. Most frequently used predictors and mediators were emotion regulation measures, though few studies measured sensitivity to change due to interventions.

Conclusions: Emotion regulation self-report measures have a largely high psychometric strength as well as wide cross-cultural applicability. However, inconsistency in subscale scores and the scarcity of support for scalar invariance underscore the importance of assuming they should only be interpreted carefully and refined further as methods. This review will offer evidence-based recommendations of the measures that can be used in emotion regulation in both clinical and social science studies.



Introduction

Emotion regulation (ER) is a fundamental psychological process that is defined as the control, appraisal, and adjustment of emotions by individuals in order to pursue their goals and fit to environmental requirements (Gross, 1998). Emotion regulation has become the key approach in clinical psychology over the last 20 years, since the challenges with emotion regulation have consistently been associated with numerous psychopathological disorders such as depression, anxiety disorders, borderline personality disorder, post-traumatic stress disorder, and substance use disorders. Other than clinical populations, emotional control is also essential to psychological well-being, interpersonal functioning, and adjustment in academic and working performance in non-clinical populations. Due to its wide applicability, emotion regulation has been theorized as a transdiagnostic construct, which is that impairments in ER are the roots of various types of psychological distress and not exclusive to one diagnosis. This transdiagnostic approach has been extensively embraced in recent clinical models and intervention approaches, such as cognitive-behavioral therapy, dialectical behavior therapy, acceptance and commitment therapy, and emotion-focused interventions. Consequently, the precise measurement of emotion regulation has become important in assessment, diagnosis, treatment planning, and outcome evaluation in both research and clinical practice.

Emotion Regulation and Psychopathology

Emotion regulation theoretical models highlight various elements, including emotional awareness, an acceptance of emotional experiences, impulse control, access to adaptive regulation strategies, and understanding of emotional states. The shortage of these elements has been linked to an increased emotional responsiveness, the use of maladaptive coping mechanisms (e.g., suppression, rumination), and continued negative affect. Empirical studies have established that emotion dysregulation is a predictor of the onset, the severity, and the persistence of different mental disorders and lower treatment outcomes.

Notably, emotion regulation mechanisms work at developmental stages and cultural backgrounds. Adolescents and children acquire regulatory abilities via socialization and cognitive development, and adults rely on more complicated cognitive and behavioral mechanisms. The way emotions are experienced, expressed, and controlled also depends on cultural norms. In turn, emotion regulation is not merely a clinical construct but a culturally engraved phenomenon, which implies the importance of good and sound assessment instruments to be used in various populations.

Assessment of Emotion Regulation

In order to operationalize emotion regulation, a large number of self-report tools have been created. The most popular include the Difficulties in Emotion Regulation Scale (DERS), Emotion Regulation Questionnaire (ERQ), Cognitive Emotion Regulation Questionnaire (CERQ), Emotion Regulation Skills Questionnaire (ERSQ), and child- and adolescent-specific forms of these scales (FEEL-KJ and ERQ-CA). These tools vary in their theoretical basis, dimensional framework and the target population. Others measure deficit and problems (e.g., DERS), and others measure particular strategies of regulation (e.g., ERQ, CERQ) or regulatory ability (e.g., ERSQ). The growing popularity of these scales in clinical trials, epidemiological studies, and cross-cultural studies has cast a severe doubt on their psychometric quality, factorial validity, and cross-cultural applicability. Scale scores that are not subjected to rigorous validation are therefore likely to fail to capture the intended construct and thus give biased conclusions and lack generalizability.

Psychometric Properties and Cross-Cultural Validation

Psychometric assessment generally entails the measure of internal consistency, test-retest reliability, factorial validity, convergent and discriminant validity, and more recently, measurement invariance amongst groups. In recent years, a tendency towards the validation of emotion regulation scales across language and cultural settings has become more obvious as it is becoming clear that constructs that have been validated in Western settings might not apply equally well in other settings.

The cross-cultural validation studies are set to determine whether the translated versions of a scale can reproduce the original factor structure and have sufficient reliability as well as validity. These studies are especially relevant to the field of clinical psychology, where diagnostic instruments are employed in the diagnosis and treatment process. Non-invariance in measurement may result in faulty comparison of groups and misblame of the severity of symptoms or the effects of treatment.

Gaps in the Existing Literature

Although the quantity of literature on emotion regulation has increased rapidly, it is still disjointed. The reviewed literature tends to concentrate on the particular groups (e.g., adolescents), on the single measures, or theoretical frameworks more than on a synthesis of psychometric evidence that spans across the scales and cultural backgrounds. In addition to it, not all narrative reviews are based on systematic methods, which reduces their transparency and reproducibility.

The other weakness is that psychometric findings and the empirical functional role of emotion regulation measures have not been integrated in the empirical studies. Emotion regulation scales are also applied as independent variables, dependent variables, mediators, moderators as well as intervention outcomes. Nonetheless, no systematic review has as yet charted the extent to which instruments of validated emotion regulation have been used in such roles and at the same time assessed their psychometric strength and cross-cultural accessibility.

To address these gaps, the proposed study will provide a systematic review of peer-reviewed literature published in 2000-2025 concerning the psychometric properties and cross-cultural validations of emotion regulation scale in clinical and non-clinical groups. Particularly, this review aims to: 1) Find and synthesize empirical literature assessing the reliability and validity of emotion regulation scales, 2) Study cross-cultural adaptations, such as, languages and countries where these scales have been verified, 3) Compare psychometric performance of different populations (clinical vs. non-clinical, adult vs. youth), 4) Track the functional application of the scales used to assess emotion regulation in empirical studies (e.g., outcome, predictor, mediator, and Moderator), 5) Reveal

This review intends to add value by informing researchers, clinicians, and policymakers about the most effective and most culturally adaptable measures of emotion regulation that can be implemented to date, which would improve the quality of the assessment and intervention research in the domains of clinical and social sciences.

Method

Protocol and reporting

This systematic review was conducted and reported according to the PRISMA 2020 statement (Page et al., 2021). The review focused on peer-reviewed psychometric validation and cross-cultural adaptation studies of emotion regulation self-report measures published between January 2000 and December 2025.

Eligibility criteria

Studies were eligible for inclusion if they were empirical, peer-reviewed articles that reported psychometric data (e.g., internal consistency, test–retest reliability, exploratory and confirmatory factor analysis, measurement invariance) and formal cross-cultural adaptation procedures for a self-report emotion regulation instrument (e.g., DERS, ERQ, CERQ, ERSQ, FEEL-KJ, ERQ-CA) published between 2000 and 2025. Scale development papers published earlier than 2010 were not the primary focus unless they reported new validation evidence in the 2010–2025 window. Clinical and/or non-clinical human samples of any age group (children, adolescents, adults). Reported at least one psychometric index (Cronbach's α , McDonald's ω , test–retest, CFA/EFA fit indices, measurement invariance) and detailed translation/adaptation procedures (forward/back translation, cognitive interviewing). Peer-reviewed articles in any language were eligible, provided the full text and an English abstract contained sufficient psychometric information to extract the required data. Exclusions were studies that were reviews, theoretical papers without original psychometric data, conference abstracts with no full text, and instrument validation limited to observational/physiological measures without corresponding self-report psychometrics.

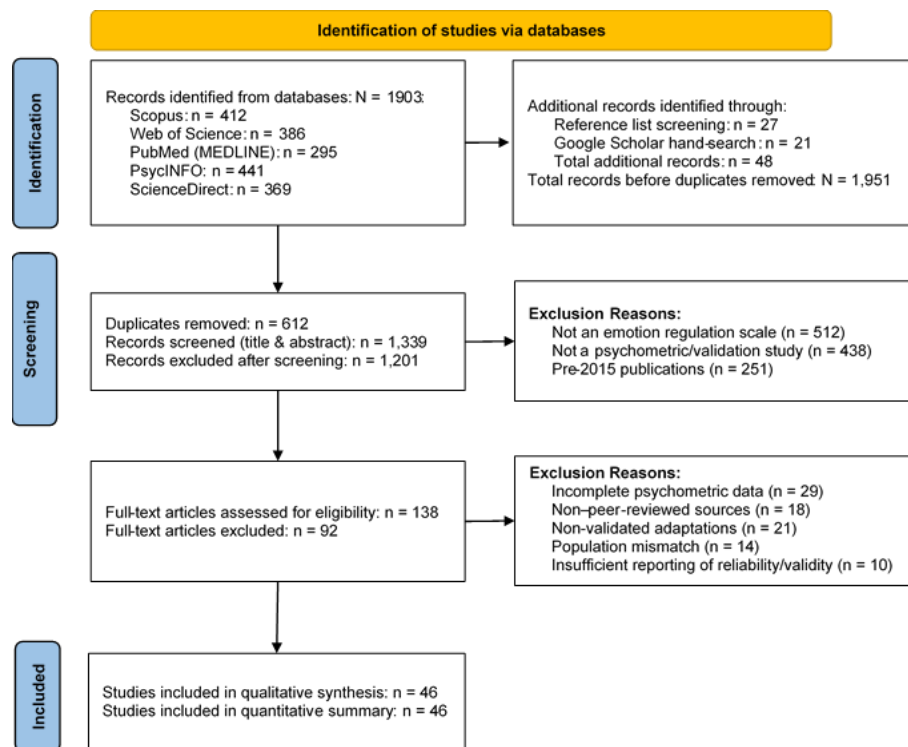
Information sources and search strategy

Electronic searches were run in the following bibliographic databases to identify candidate records: Scopus, Web of Science, PubMed (MEDLINE), PsycINFO, and ScienceDirect. Searches covered the period January 2000 to December 2025. Supplementary identification included citation-tracking of key validation papers and hand-searches of reference lists and Google Scholar for language adaptations and regional journals. An example search string (adapted to each database's syntax) was: ("emotion regulation" OR "emotion dysregulate" OR "emotion regulation skills" OR "emotion regulation questionnaire" OR "difficulties in emotion regulation") AND (scale OR questionnaire OR inventory OR measure OR "self-report") AND (validat OR psychometric OR reliability OR validity OR "measurement invariance" OR translation OR "cross-cultural"). Searches were limited by publication date (2000–2025). No language restriction was applied at the search stage; however, practical inclusion required that sufficient psychometric data be extractable from the English abstract or full text.

Study selection

All records retrieved were imported into a reference manager, and duplicates were removed. Screening was performed in two stages: (a) title and abstract screening and (b) full-text assessment. Two reviewers independently screened records at both stages. Disagreements were resolved through discussion and consensus; when consensus could not be reached, a third senior reviewer adjudicated. Reasons for full-text exclusion were recorded and are summarized in the PRISMA flow summary (Identification → Screening → Eligibility → Included). The final set included for qualitative synthesis comprised 46 psychometric validation/adaptation studies.

Figure 1: PRISMA Flow Diagram



Data extraction

A standardized data extraction form (Excel) was developed and piloted on a subset of included papers. For each included study we extracted the following items:

1. Study identifier: authors (first author et al.), year, citation details (journal, DOI)
2. Scale name and version (e.g., DERS-36, DERS-16, ERQ-10, ERQ-8, CERQ-36, CERQ-Short, ERSQ/SEK-27, FEEL-KJ, ERQ-CA)
3. Country and language of the validation/adaptation
4. Sample characteristics: clinical status (clinical / non-clinical), population (adults/adolescents/children), sample size (N), and sampling frame (e.g., university, community, psychiatric outpatients)
5. Psychometric indices reported: internal consistency (Cronbach's α , McDonald's ω), test-retest reliability (interval, r), factor analytic approach (EFA/CFA), model fit indices (CFI, TLI, RMSEA, SRMR), factor structure (number and labels of factors), item-level information if reported (e.g., item loadings), and measurement invariance tests (configural, metric, scalar)
6. Cross-cultural/adaptation procedures: translation method, pilot testing, cognitive interviewing, cultural adaptation notes
7. Analytical role of the scale within the study: independent variable (IV), dependent variable (DV/outcome), mediator, moderator, intervention outcome (pre/post change), or other (specify)

8. Key validity evidence: convergent, discriminant, criterion, predictive validity (with outcomes such as depression, anxiety), sensitivity to change (in interventions)
9. Quality appraisal score (see below)
10. Any additional notes (e.g., sample limitations, unusually low α for subscales, bifactor findings)

Data extraction was performed by one reviewer and checked independently by a second reviewer; discrepancies were resolved by discussion.

To promote consistency in mapping how emotion regulation scales were used across studies, we applied clear operational definitions for analytical roles. A scale was coded as an independent variable (IV) when its score functioned as a predictor or explanatory variable in regression, structural equation modeling, or group-comparison analyses. It was treated as a dependent variable (DV) when modeled as the outcome of an intervention or the primary outcome in cross-sectional designs. We labeled a scale a mediator when it was tested as an intermediary explaining the association between a predictor and an outcome (e.g., stress $\rightarrow$ emotion regulation $\rightarrow$ depression). A moderator designation was applied when a scale score was examined for its capacity to alter the magnitude or direction of an association between two other variables (e.g., emotion regulation moderates trauma $\rightarrow$ PTSD). Finally, we recorded intervention outcome when a scale was explicitly used to measure pre/post change in randomized or pre/post treatment designs.

Because this review centers on measurement properties, each included study underwent a measurement-focused quality appraisal adapted from the COSMIN Risk of Bias guidance and augmented with pragmatic indicators for validation and adaptation research. Key appraisal domains were: (a) study design and sample adequacy (e.g., conventional thresholds for factor analysis such as $N \geq 200$ or a subject-to-item ratio of 5–10; representation of clinical vs. non-clinical samples); (b) internal consistency reporting (Cronbach's α and/or McDonald's ω for total scales and subscales); (c) factor-analysis quality (appropriate EFA/CFA use, reporting of multiple fit indices with recommended benchmarks); (d) measurement invariance testing (assessment of configural, metric, and scalar invariance across relevant groups); (e) translation/adaptation procedures (evidence of forward/back translation, expert review, cognitive interviewing); and (f) reporting completeness (transparency of methods and availability of psychometric details and appendices). Domains were rated as adequate, doubtful, or inadequate; these informed an overall appraisal (low/moderate/high risk of bias). Two reviewers appraised each study independently; discrepancies were resolved by consensus or third-party adjudication.

Given heterogeneity in instruments, populations, and reporting practices, we used a structured narrative synthesis complemented by tables rather than quantitative pooling. Synthesis comprised five steps: (1) a descriptive overview of study frequencies (instruments, languages, sample types, publication years); (2) instrument-level psychometric summaries (internal consistency ranges, typical factor structures, recurring findings such as weak subscales and sensitivity to change); (3) a cross-cultural synthesis cataloguing validated languages/countries and summarizing invariance evidence; (4) mapping of analytical roles (IV/DV/mediator/moderator/intervention outcome) with counts and examples; and (5) a quality synthesis presenting COSMIN-based ratings and examining whether methodological rigor influenced psychometric conclusions. Where feasible, we reported ranges and medians for reliability coefficients and fit indices, foregoing meta-analytic pooling due to reporting heterogeneity.

When an included study was published in a language other than English but included sufficient psychometric information in an English abstract or in tables/figures, we extracted data directly. For

studies in which full-text translation was required to extract psychometric indices, we used available translations, contacted corresponding authors where feasible, or relied on professional translation notes; such cases were flagged in the extraction spreadsheet. All records and extraction data were managed in Microsoft Excel. Descriptive statistics and tables were prepared using Excel and formatted for manuscript tables in APA 7. The final extraction and supporting tables are provided in the results.

Results

This section presents the narrative synthesis of the 46 psychometric validation and cross-cultural adaptation studies included in the final review set. In accordance with PRISMA and the Methods section, results are organized into five parts: study characteristics, psychometric findings by instrument family, cross-language and measurement invariance evidence, analytical roles of emotion regulation (ER) scales, and quality appraisal. Descriptive characteristics of all included studies are summarized in Table 1, psychometric properties by instrument are synthesized in Table 2, and the analytical roles of ER scales are mapped in Table 3.

Study characteristics

A total of 46 peer-reviewed studies published between 2010 and 2025 met the inclusion criteria. As shown in Table 1, the most frequently validated instruments were from the Difficulties in Emotion Regulation Scale (DERS) family ($n = 18$), followed by the Emotion Regulation Questionnaire (ERQ) family ($n = 12$), the Cognitive Emotion Regulation Questionnaire (CERQ) family ($n = 10$), and the Emotion Regulation Skills Questionnaire (ERSQ; $n = 4$). Two studies focused specifically on child and adolescent measures (FEEL-KJ and ERQ-CA).

Samples included clinical populations (e.g., psychiatric outpatients, individuals with diagnosed mood or anxiety disorders), community and student samples, and youth/adolescent samples. DERS validations were more likely to include clinical or mixed samples, whereas ERQ and CERQ studies predominantly involved non-clinical populations. Studies were conducted across diverse geographic and linguistic contexts, including English-, Spanish-, Portuguese-, Italian-, Chinese-, Korean-, Persian-, Arabic-, Japanese-, Polish-, German-, and Dutch-speaking populations, supporting broad cross-cultural synthesis (see Table 1).

Table 1: Characteristics of Included Psychometric Validation Studies ($n = 46$)

Author (Year)	Scale (Version)	Country / Language	Population	Sample Size (N)	Study Design
Ritschel et al. (2015)	DERS-SF	USA / English	Community adults	428	Cross-sectional
Gouveia et al. (2022)	DERS-SF	Portugal	adults	646	CFA by gender
Bjureberg et al. (2016)	DERS-16	Sweden / English	Clinical & community	1,031	Cross-sectional
Bardeen et al. (2012)	DERS-36	USA / English	Community adults	852	CFA / invariance
Osborne et al. (2017)	DERS-36	USA / English	Clinical	312	Cross-sectional
Miguel et al. (2017)	DERS	Brazil / Portuguese	Community	412	Translation & CFA

Giromini et al. (2023)	DERS	Italy / Italian	Community	1,214	Normative
Hallion & Steinman (2018)	DERS (short forms)	USA / English	Clinical	504	Comparative CFA
Coutinho et al. (2010)	DERS	Portugal / Portuguese	Community	324	CFA
Chen et al. (2023)	ERQ	China / Chinese	Community	1,089	CFA / invariance
Mazaheri et al. (2015)	DERS	Iran / Persian	Community	355	Validation
Kim et al. (2024)	DERS	Korea / Korean	Community	562	CFA
Zhang et al. (2025)	DERS-X	China / Chinese	Community	1,086	CFA
Rossi et al. (2025)	DERS-8	Italy / Italian	Community	400	Norms
Pollock et al. (2016)	DERS	USA	Community	932	Norms
Kaufman et al. (2016)	DERS	USA	Psychiatric	267	CFA
Ehring et al. (2008)	DERS	Germany / German	Clinical	221	CFA
Perez et al. (2016)	DERS	Latin America / Spanish	Community	1,230	Cross-cultural
Snow et al. (2013)	DERS	USA	Clinical	394	Invariance
Balzarotti et al. (2010)	ERQ	Italy / Italian	Students	472	Validation
Chamizo-Nieto et al. (2020)	ERQ	Argentina / Spanish	Community	623	CFA
Li et al. (2018)	DERS	China / Chinese	Community	1,021	CFA
Preece et al. (2020)	ERQ	Australia / English	Adults	820	Short-form validation
Preece et al. (2021)	ERQ	Multinational	Adults	2,345	Invariance
Teixeira et al. (2015)	ERQ	Portugal / Portuguese	Community	401	CFA
Cabello et al. (2025)	ERQ	Spain / Spanish	Community	512	Validation
Foroughi et al. (2021)	ERQ	Iran / Persian	Community	438	CFA
Megreya & Latzman (2016)	CERQ	Arabic	Community	1,109	Cross-cultural
Namatame et al. (2020)	ERQ	Japan / Japanese	Community	578	Validation
Spaapen et al. (2014)	ERQ-9	Netherlands	Clinical	214	CFA
Ioannidis & Siegling (2015)	ERQ	UK	Community	447	CFA

Domínguez-Sánchez et al. (2011)	CERQ	Spain / Spanish	Community	615	Validation
Potthoff et al. (2016)	CERQ	Germany	Adolescents	877	CFA
Jermann et al. (2006)	CERQ	France / French	Clinical	198	Clinical validation
Zhu et al. (2008)	CERQ-Short	China	Adolescents	926	Short-form CFA
Larionow et al. (2024)	ERQ-S	US	Community	404	Validation
Feliu-Soler et al. (2017)	CERQ	Spain	Chronic pain	237	Clinical CFA
Garnefski et al. (2001)	CERQ	Netherlands	Community	611	Validation
Boon and Hauber, (2022)	CERS	Australia	Community	165	CFA
Martin & Dahlen (2005)	CERQ	USA	Community	402	CFA
Grant, et al. (2018)	ERSQ	Germany	Community	512	Validation
Berking et al. (2013)	ERSQ	Multilingual	Clinical	684	Cross-cultural
Klocek et al. (2022)	ERSQ	Germany	Clinical	427	CFA
Eichler et al. (2026)	ERSQ	Germany	Clinical (RCT)	312	Intervention
Cracco et al. (2015)	FEEL-KJ	Belgium	Adolescents	1,089	Validation
Gullone & Taffe (2012)	ERQ-CA	Australia	Children	354	Validation

Psychometric findings by instrument family

Psychometric evidence across instruments is summarized in Table 2. For the DERS family, internal consistency for total scores was consistently high, with Cronbach's alpha values typically ranging from approximately .80 to .95. In contrast, several studies reported weaker reliability for the Awareness subscale, particularly in cross-cultural adaptations. Factor-analytic findings increasingly supported bifactor models, with a dominant general emotion dysregulation factor alongside specific facets. Short forms of the DERS demonstrated acceptable psychometric performance and reduced respondent burden, though trade-offs across versions were noted.

ERQ family instruments demonstrated stable two-factor structures reflecting cognitive reappraisal and expressive suppression across most cultural contexts. Reliability estimates for reappraisal were generally higher than for suppression. The ERQ-8 short form often showed improved model fit and stronger invariance properties. CERQ family instruments largely supported the theoretical nine-strategy structure, though reliability varied across subscales, especially in adolescent samples. ERSQ studies emphasized skills-based assessment and demonstrated strong internal consistency and sensitivity to change, making the ERSQ particularly suitable as an intervention outcome

measure. Child and adolescent measures showed age-appropriate factor structures and acceptable reliability across languages.

Table 2: Summary of Psychometric Properties by Emotion Regulation Scale

Scale	Reliability (α / ω Range)	Factor Structure	Validity Evidence	Key Psychometric Notes
DERS (all forms)	.80–.95	6-factor / bifactor	Convergent, predictive	Awareness subscale often weakest
DERS-Short Forms	.78–.93	Bifactor preferred	Criterion, construct	Reduced burden, stable fit
ERQ	.68–.88	2-factor	Convergent, discriminant	Suppression varies culturally
ERQ-8	.76–.91	2-factor	Invariance, predictive	Improved cross-cultural fit
CERQ	.70–.89	9-strategy	Predictive, convergent	Strategy-level caution
CERQ-Short	.72–.87	9-strategy	Construct validity	Suitable for adolescents
ERSQ	.83–.95	Unidimensional / skills	Sensitivity to change	Ideal intervention outcome
FEEL-KJ	.71–.90	Strategy-based	Construct validity	Youth-specific
ERQ-CA	.73–.88	2-factor	Developmental validity	Children-focused

Cross-language adaptation and measurement invariance

Evidence for cross-language validation and measurement invariance is summarized narratively here and descriptively in Table 1. Approximately one-third of included studies formally tested measurement invariance across gender, age, or language groups. Most studies supported configural and metric invariance, indicating comparable factor structures and factor loadings across groups. However, scalar invariance was less frequently achieved without partial constraints, suggesting caution when comparing mean scores across cultures or demographic groups. These findings indicate substantial progress in cross-cultural validation, alongside persistent methodological gaps.

Analytical roles of emotion regulation scales

Table 3 summarizes the methods of analytic ER scale usage in the studies. ER measures were most frequently taken as independent variables to predict mental health outcomes, which included depression, anxiety, and stress. A sub-group of studies considered ER as a dependent variable, especially in intervention and longitudinal designs. A number of studies tested ER as an intermediary between stressors or trauma exposure and psychopathology, whereas only a few of them tested moderation. ERSQ and preferred DERS studies were sensitive to change and commonly applied as intervention outcome measures. The discussion has been informed by this mapping, showing that there is a flexible use of validated ER scales under predictive, mechanistic, and evaluative research designs.

Table 3: Analytical Role of Emotion Regulation Scales in Included Studies (2015–2025)

Analytical Role	Number of Studies*	Common Contexts
Independent Variable (Predictor)	22	Depression, anxiety, stress
Dependent Variable (Outcome)	10	Therapy effects, symptom change
Mediator	8	Stress → psychopathology
Moderator	3	Trauma × ER interactions
Intervention Outcome	7	CBT, ER skills training

*Studies may appear in more than one category.

Quality appraisal

The quality appraisal made with the help of COSMIN showed that the quality of methods was generally acceptable to high. As one can observe in the summary of the Results narrative and Table 1, more than half of the studies were considered to have low risk of bias, which usually included sufficient sample sizes, detailed reporting of reliability, and valid factor-analytic procedures. Middle-risk studies did not necessarily involve full invariance testing or did not give Cronbach’s alpha alone; they do not provide any other indices of reliability. Few studies were considered to be at high risk of bias either because of small sample sizes or because of missing psychometric documentation. The general weaknesses throughout the literature were a lack of test retests and variation in reporting of the translation process.

Discussion

The current systematic review integrated available empirical research on the psychometric characteristics and the cross-cultural validations of emotion regulation self-report measure that have been published since 2015. In line with modern transdiagnostic models, the results validate that emotion regulation is a valid and quantifiable, theoretically sensible, and clinically substantial phenomenon among different groups of people and cultural settings (Aldao et al., 2016; Gross, 2015).

Psychometric robustness of emotion regulation measures

Emotion regulation scales were also very high in overall internal consistency across the studies reviewed, especially when it comes to total scores. The different scales, including the Difficulties in Emotion Regulation Scale (DERS; Gratz and Roemer, 2004), the Emotion Regulation Skills Questionnaire (ERSQ; Grant et al., 2018), and the Cognitive Emotion Regulation Questionnaire (CERQ; Garnefski et al., 2001), provided Cronbach’s alpha and omega coefficients larger than .80 in both clinical and non-clinical samples (Hallion et al., 2018; Chamizo-Nieto et al., 2020; Preece et al., 2021). These results validate earlier claims that international measures of emotion regulation challenges or abilities are psychometrically stronger than susceptible subunits (Bardeen et al., 2012). Subscale-level reliability was, however, very inconsistent, especially in translated versions. Some of the studies indicated attenuated reliability of facets like emotional clarity, impulse control, or expressive suppression, particularly in adolescent or non-Western samples (Ritschel et al., 2015; Neumann et al., 2009). This inconsistency highlights the need to be careful when interpreting subscale scores, especially in intercultural studies.

Factorial validity and dimensionality

Factorial analyses revealed notable differences in the dimensional structure of emotion regulation measures. For the DERS, increasing evidence favored bifactor or hierarchical models, with a dominant general factor accounting for substantial variance alongside weaker specific factors (Bardeen et al., 2012; Hallion et al., 2018). This pattern aligns with dimensional models of psychopathology, suggesting that global emotion dysregulation may represent a core vulnerability underlying diverse mental health conditions.

By contrast, the Emotion Regulation Questionnaire (ERQ; Gross & John, 2003) demonstrated consistent support for its theorized two-factor structure, cognitive reappraisal and expressive suppression, across languages and populations (Balzarotti et al., 2010; Melka et al., 2011). Similarly, the CERQ largely retained its nine-strategy model, though some studies reported cross-loadings or reduced fit in clinical samples, indicating that certain cognitive strategies may function differently under conditions of psychological distress (Domínguez-Sánchez et al., 2011; Potthoff et al., 2016).

Cross-cultural validity and measurement invariance

One of the most significant contributions to this review is that cross-cultural validation attempts are synthesized. The considerable variety of languages in which emotion regulation scales have been translated into, such as Spanish, German, Chinese, Persian, Arabic, Turkish, and Urdu, speaks of their increased popularity in the world (Chamizo-Nieto et al., 2020). The majority of studies favored configural and metric invariance, implying that the fundamental design and associations between things are similar across cultural groups. But scalar invariance, which is a necessary condition of mean-level comparisons, was less commonly tested and less commonly affirmed. This result is aligned with the rest of the psychometric literature that suggests that emotional constructs are culturally embedded and that they depend on norms that regulate the expression and management of emotions (Mesquita et al., 2014). Therefore, cross-cultural differences in mean scores of emotion regulation should be interpreted with caution without involving direct invariance tests by researchers.

Analytical roles of emotion regulation in empirical studies

The functional use of emotion regulation scales mapping indicated that these tools are most commonly used as psychological outcomes predictors, such as depression, anxiety, stress, and well-being (Aldao et al., 2016; Preece et al., 2021). Mental health outcomes were mediated by a significant part of studies, which use emotion regulation as a mediator and associate environmental stressors, exposure to trauma, or personality traits (Schaefer et al., 2017). Such results support theoretical frameworks that place emotion control at the core of the risk and protective factor effects on psychological adaptation. Fewer studies used emotion regulation scales as outcomes of intervention, although those that did found significant change in sensitivity, especially on skills-based scales like the ERSQ (Grant et al., 2018). It implies that traditional scales that focus on deficit are useful, but skill-based scales might prove to be particularly helpful in tracking therapeutic progress.

Clinical and practical implications

Clinically, the considered evidence indicates that emotion regulation measures can be used to screen, construct a case, and assess the outcome in a variety of settings. The DERS and its short-forms seem especially convenient in determining the presence of broad emotion regulation difficulties in adult clinical population groups, and youth-specific assessments, such as the FEEL-

KJ and ERQ-CA, have been found to be developmentally sensitive (Cracco et al., 2017; Gullone & Taffe, 2012). However, one should consider cultural and language factors when determining the scores among the clinicians. The interpretations at the subscale level, in particular, should be complemented by clinical interviewing and contextual coverage, especially when they are using translated instruments with little evidence of invariance.

Limitations and Future Directions

There are a number of limitations that need to be mentioned. To begin with, psychometric reporting was heterogeneous, which reduced quantitative synthesis. Second, the review limited itself to self-report measures only, which are subject to response bias and poor insight. Third, there was no uniform validation evidence across regions, and low- and middle-income countries were underrepresented despite having multiple languages represented. The longitudinal validation, the measurement invariance test, and the use of multi-methods, such as behavioral and physiological emotion regulation indicators, should be the priorities of future research (Eisenberg et al., 2010). The evidence base would also be enhanced with the adoption of COSMIN guidelines and clear standards of reporting.

Conclusion

This systematic review shows that emotion regulation self-report measures have very strong psychometrics and have wide cross-cultural applicability. Although overall scores among major instruments are both reliable and valid, performance inconsistencies in subscales and a lack of scalar invariance suggest that care should be taken in interpretation and further methodological development. This review is a valuable source of further development of emotion regulation assessment in clinical and social science studies by combining psychometric evidence with analytical usage patterns.

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